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An exploratory study of the academic journey of successful twice exceptional students at a selective institution of higher learning

Paula K. Ginsburgh
William & Mary - School of Education

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**AN EXPLORATORY STUDY OF THE ACADEMIC
JOURNEY OF SUCCESSFUL TWICE EXCEPTIONAL STUDENTS AT A
SELECTIVE INSTITUTION OF HIGHER LEARNING**

A Dissertation

Presented to

The Faculty of the School of Education

The College of William and Mary in Virginia

In Partial Fulfillment
Of the Requirements for the Degree
Doctorate of Philosophy of Education


By
Paula Kay Ginsburgh
May 2007

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JOURNEY OF SUCCESSFUL TWICE EXCEPTIONAL STUDENTS AT A
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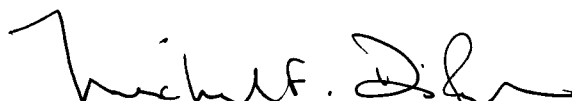
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**AN EXPLORATORY STUDY OF THE ACADEMIC JOURNEY OF
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Abstract

This study was designed to identify inhibitors and facilitators of the educational journey of twice exceptional students at a selective institution of higher learning.

Questionnaire and interview techniques were used to elicit responses from 13 qualified students about their talent development journey. Five cases were selected based on their uniqueness and their ability to articulate. Parents were also interviewed to provide verification for student commentary and additional insights.

Results of the study across the five cases focused on key themes facilitating the development of these college students as well as those that inhibited their talent development. Factors facilitating student development included: parent support, appropriate accommodations, teacher support and positive regard, perseverance, and the willingness to make changes in their major or career path in order to succeed. Factors inhibiting student development were: the role of the disabilities office as gate keepers, late identification, lack of accommodations at key junctures, feelings of differentness, and resource/time management.

Implications for practice include, the need for educators to acquire a deeper understanding of twice exceptional students to ensure sensitivity to their condition, awareness of the twice exceptional student's need for appropriate accommodations, the need for practitioners to work closely with parents of twice exceptional students, the need for programs and provisions targeted to address both the disability and the high

ability of the twice exceptional student, and the need to develop support systems for twice exceptional students lacking parental involvement.

Implications for future research would include: an exploratory study designed to probe the experiences of the parents of twice exceptional students, a prospective study of recently identified twice exceptional students in regard to cognitive and social emotional dimensions of their functioning at key transition points, creation and validation of a scale for characteristics of twice exceptional students that could be used at the elementary level, a longitudinal study of successful twice exceptional students through age 40, and a study targeting counseling interventions for twice exceptional students at the middle school level.

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Chapter One: Introduction

Introduction to the Problem

This dissertation constitutes a qualitative research study that examines the factors that both inhibit and facilitate the successful talent development journey of high ability twice exceptional juniors and seniors at a selective institution of higher learning. The study uses Gagne's theory of talent development (2003), focusing particularly on the intrapersonal and environmental catalysts to illustrate how these catalysts propel or inhibit these students to success in educational environments.

Researchers who have studied gifted students with learning disabilities have reported that these students are often productive in nonacademic environments (Baum, 1984; Brody & Mills, 1997; Fox, Brody & Tobin, 1983; Reis, Neu, & McGuire, 1995; Schiff, Kaufman, & Kaufman, 1981; Whitmore, 1980). Even though this productivity has been observed in nonacademic arenas, often they underachieve in the school setting. Reis, McGuire, and Neu (2000) state:

Limited research has been conducted on how these high-ability students with learning disabilities succeed in school. Even less research exists among college students with learning disabilities who also exhibit attributes associated with giftedness. Given the recent trend of increasing numbers of students with learning disabilities enrolling in postsecondary settings (Henderson, 1995), it is likely that high ability students who also experience learning disabilities are represented among this population. Without information that sheds light on the variables affecting the success of these students in post secondary academic setting, both secondary and

postsecondary personnel are left to speculate about interventions that will facilitate the effective transition to an environment characterized by vastly different demands ” (p. 123-124).

This researcher hopes that the outcomes of this study will assist programs and providers for twice exceptional students by demonstrating more clearly the struggles, as well as the victories these students experience across their educational journey. The importance of this qualitative research is its ability to provide more insight regarding successful students at the collegiate level who are gifted and struggle with impacting disabilities.

Survey and interview techniques were used along with parent input. Parent interviews were used for triangulation of student data.

Background of the study

There is a population of students across the educational milieu that exhibit high ability but struggle or underachieve in the typical classroom setting. These students represent a hidden and underserved group since their needs often are unattended to by those agencies within the school system that serve students with special needs (Silverman, 1989; Brody & Mills, 1997; Fox et al, 1983; Cline, 1999). Students who fall in this category are often referred to as twice exceptional (Brody & Mills, 1997). Twice exceptionality refers to those students who show exceptional ability in academic or intellectual capacity, yet are also exceptional due to learning disabilities that impact their intellectual capacity in profound ways (Silverman, 1993). These academically gifted and learning disabled students present different profiles than a typical learning disabled or gifted student. This creates difficulty identifying them within the school population.

The first group includes students who have been identified by school personnel as academically gifted through appropriate assessments, yet continue to exhibit difficulties in school usually performing well below their assessed potential. A second group includes students whose learning disabilities are strong enough that they have been identified as having learning disabilities, but whose exceptional abilities have never been recognized or addressed. The third group is perhaps the largest group of un-served students, those who have been neither identified as gifted or disabled. These students are those whose abilities and disabilities mask each other; these children sit in general classrooms, ineligible for services provided for students who are gifted or having learning disabilities and are considered to have average ability (Brody & Mills, 1997, p. 282 - 283).

They are all races, all genders, and all cultures. They are children of high-ability, yet they struggle in the shadows of the daily classroom environment and the larger school context due to hidden disabilities which cause them to appear average (Baum, 1994; Baum, Owen, & Dixon, 1991; Fox Brody, & Tobin, 1983; Landrum, 1989; Starnes, Ginevan, Stokes, & Barton, 1988).

Twice exceptional children present in unique and confusing ways or merely remain hidden by their disabilities. Student may suffer silently as they struggle to keep up in the regular classroom. Fox, Tobin, and Schiffman, (1983) suggest the following characteristics that might signal the presence of a twice exceptional child.

Sloppy handwriting, difficulty in following directions, bizarre or phonetic spelling of words on writing assignments, or numbers placed in wrong

columns are some of the subtle indications that the problem is deeper than just an unwillingness or inability to work hard enough to excel. These students may be deficient in selectively attending to relevant and irrelevant stimuli, they may have inefficient learning strategies, they may have short or long-term memory processes, and they may suffer auditory and visual perceptual processing problems. They often wrestle with counter-productive behaviors such as withdrawal, clowning, hyperactivity, task avoidance, and slow impulse control (p. 20).

Twice exceptional students not only struggle with academic inefficacy, they also struggle with social and emotional issues that create problems for them in the classroom. They may engage in aggressive disruptive habits that make it difficult for them to focus on their work and to succeed socially with their peers. The stress and failure they experience at school are sensed by classmates, teachers, and parents alike, and the general feeling that these children are inept tends to diminish their self-esteem.

In her book, *Smart Kids with School Problems*, Vail (p. 1, 1987) identified specific social-emotional issues that these students battle. "Anger, fear, self-doubt, frustration, and pressure are typical of the reactions that intensify when an intelligent student has a school problem. Negative responses contaminate the classroom; invade the home, and squeeze the spirit and intelligence of smart-kids" (p. 1, 1987). Given the nature of these internalized emotional states, many twice exceptional students are extremely vulnerable to loneliness and isolation.

The total number of students in K-12, according to the National Center for Education Statistics in the United States is 74.7 million as of 2002 (NCES, 2003). The

number of students served in special education with individual education plans is 6,313,342, which represents 13.3 percent of the school population. The State of Virginia through the Department of Education has posted a statewide summary of students involved in special education. School membership in the state of Virginia is 1,204,808. There are a total of 164, 878 students served through the Special Education department statewide, according to the December 2001 report from Virginia Department of Education. These special education students represent 13.6 percent of the total students served in the state of Virginia. Of these 13.6 percent of students identified as learning disabled, a portion of them have the characteristics of twice exceptional students due to their high ability that falls within the top two standard deviations from the norm. Baum (1985) has postulated that as many as 33 % of students identified with learning disabilities may evidence superior intellectual ability. If her postulation is true, these students need to be serviced in the area of their giftedness as well as their learning disability; however, despite the changes in the Individuals with Disabilities Education Improvement Act (IDEA, 2004), these students typically do not receive specialized education related to their superior intellectual ability. They do not receive the assessments that guarantee that they receive an appropriate education that is tightly coupled with their high ability. A supportive environment for their strengths would infuse them with the energy to stay focused during work on their deficits.

The social and emotional implications for gifted students with disabilities according to Dole (2000) place them on a list for heightened risk. She lists the following social emotional characteristics of such children that increase their vulnerability: poor self-concept, poor self-efficacy, hypersensitivity, emotional ability and high levels of

frustration, anxiety and self-criticism. When students are identified with a learning disability and their high intellectual ability is ignored, it creates a nonproductive pattern for these children which translate into an inferior education when compared to their true potential. Bireley (1991), states that “When gifted students are treated as handicapped to the neglect of their intellectual ability, a ‘handicapped’ or dependent pattern of behavior is likely to emerge. However, a supportive, facilitative environment can foster the emergence of a ‘gifted’ pattern geared toward success in academic endeavors and social interactions with peers” (p. 164).

Problem Statement

Currently few services are available for twice exceptional students that would foster understanding related to the academic and emotional issues that impact them, as well as little insight concerning the dichotomy they live with that requires that they sever their “gifted self” from their “disabled self.” Educational awareness and intervention are critical in order to interact dynamically with the intensities that often accompany a gifted profile. Other aspects of the problem include: (1) how disabilities impact giftedness, (2) the cycles of difficulty that are inherent at each stage of the educational process and (3) the strengths that allow successful students to overcome their social and emotional obstacles as well as problems in the educational system.

Research Statement

The overarching question that guided this study was: What intrapersonal and environmental factors have both inhibited and facilitated the talent development journey of intellectually talented twice exceptional students who are now juniors and seniors at a selective institution of higher learning?

Related Questions

Questions that were used as the study questions were:

1. What internal factors were important in facilitating twice exceptional students successfully through their educational journey?
2. What external factors were important in facilitating twice exceptional students successfully through their educational journey?
3. What internal factors inhibited twice exceptional students through their educational journey to date?
4. What external factors inhibited twice exceptional students in their educational journey to date?
5. What are the similarities and differences across internal and external factors related to twice exceptional students who have achieved junior or senior status at a selective institution of higher learning?

Conceptual Framework

The Differentiated Model of Giftedness and Talent by François Gagné, DMGT (2000) (see Appendix A) is a solid foundation to investigate the issues that relate to intellectually gifted twice exceptional children, particularly the impact in the areas of intrapersonal (internal) and environmental (external) catalysts as they impact across the educational process. How do these catalysts facilitate or inhibit these students as they move through the educational structure from kindergarten through college?

The DMGT model (Gagné, 2000) is a complex model working to fuse the nuances of talent development with the current philosophy of gifted children. This model makes a clear distinction between the concepts of giftedness and talent. The term

‘giftedness’ is used to point to the possession and utilization of untrained, raw, spontaneously expressed natural abilities in at least one domain to the degree that it places individuals within the top 10% of age peers. Gagne differentiates the term ‘talent’ as “superior mastery of systematically developed abilities (or skills) and knowledge in at least one field of human activity, to a degree that places an individual within the top 10% of age peers who are active in that field” (Gagné, 2000, p. 67).

The domains of natural abilities (NAT) are presented as high intellectual gifts (IG), creative gifts (CG), socioaffective gifts (SG), and sensoriMotor gifts (MG). Systematically developed skills (SYSDEV) are categorized by fields relevant to school-age youths. These categories are academics, arts, business, leisure, social action, sports, and technology. “Talents progressively emerge from the transformation of these natural abilities into the well-trained and systematically developed skills characteristic of a particular field of human activity or performance” (Gagné, 2000, p.69). In Gagne’s model, shown in Appendix A, the block arrow that connects natural abilities to talents represents the developmental process (LP) by which these gifts emerge as special talent. This developmental process is impacted by two major groups of catalysts. The first group is the intrapersonal catalysts (IC). These include personal characteristics that are physical (characteristics, handicaps, health, etc), motivational (needs, interests, values, etc.), volitional (will-power, effort, persistence), self-management (concentration, work habits, initiative, scheduling, etc), and personality (temperament, traits, well-being, self-awareness & esteem, adaptability, etc.). The second group is the environmental catalysts (EC). These include milieu (physical, cultural, social, familial, etc), persons (parents, teachers, peers, mentors, etc.), provisions (programs, activities, services, etc.), and events

(encounters, awards, accidents, etc.). The last component in the model is chance. “Chance is spontaneously associated with the environment (e.g. the ‘chance’ of the school in which the child is enrolled deciding to develop a program for gifted/talented students; the bad luck of suffering a major accident during athletic training). But, its influence also manifests itself in both the EC and IC components of the model through the randomness inherent in the transmission of the genetic endowment” (Gagné, 2000, p. 69).

Gagné (2000) acknowledges the complexity of the model. He states, “no one will deny that complex human behaviors have a multi-source etiology, usually involving factors from each of the DMGT’s causal components. The DMGT can help counterbalance that well-anchored human propensity to simplify causality, by reminding us that what appears to be the most evident cause of a behavior is probably not the only significant one, and might even not be the most significant” (p.70). Understanding the multidimensional way these characteristics interact provided an important conceptual framework for an exploratory research project delving into the internal and external factors that impact intellectually gifted twice exceptional students. The intrapersonal and environmental catalysts from the model were used as a guide to identify categories for the open codes that emerged in the research.

Procedures for the Study

Using the modified Gagne model as a frame of reference as shown in Figure 2 (see in Appendix B) the study involved the intrapersonal and environmental components of his model merged with the unique characteristics of twice exceptional students. The study was conducted in two phases. A questionnaire was given to selected students at a

selective institution of higher learning, who were registered with the Dean of Students through the Office of Disabilities. The Office of Disabilities sent a cover letter with the questionnaire stating the purpose and the nature of the study. A Barnes and Nobles gift certificate was given to all students who completed and returned the questionnaire. Once the questionnaires were returned, students who volunteered for a more in-depth interview were interviewed, a sample of five students was chosen that best represented uniqueness's of the survey participants along with a criteria that isolated the most extreme cases.

This study was open to those students who had self-identified, according to the protocol established by the Office of Disabilities, as having a documented learning disability (LD) or cognitive impairment due to (ADHD). The protocol for the selective institution of higher learning can be found in Appendix E. The students met an intellectual and academic standard set forth by the definition of giftedness in the definitions section of this paper. The nature of the interview sample emerged from the questionnaire data (see Appendix C for a copy of the questionnaire). Those wishing to participate in the case study indicated their willingness to do so on their questionnaire.

The cases were selected from those who volunteered for a follow up interview. The goal was to select cases that were extreme cases and exemplified participants who were articulate and able to identify both internal and external factors in their life. Evidence that characterized both the positive and negative effects of their twice exceptionality was targeted. If a problem with sampling emerged from this particular process, a back-up approach for sampling would have been utilized; snowball or chain sampling. Patton identified this sampling as "a way to identify cases of interest from

sampling people who know people who know people who know what cases are information rich, that is, good examples for study, good interview participants” (2002, p.243). A sample of five was sufficient to acquire the voice of these students and the information necessary to begin to ask new and targeted research questions for future research. Case study methodology was chosen because of the exploratory nature of the study, coupled with a desire to understand the processes and experiences that could not be discovered by any other means.

The interview protocol was piloted prior to interviewing the selected cases from the Office of Disabilities. Each case was targeted to gather comprehensive, systematic, and in-depth information about twice exceptional students, components of their social emotional journey throughout school, and those factors that both inhibited and facilitated their progress to date.

Following the gathering of data, inductive and deductive qualitative analysis was used. Open-coding, selective coding and axial coding were used to tease out categories and themes. “Voice was purposefully inserted throughout the entire process. It was at this stage that interpreted meaning became critical. The analysis elucidates the meaning, structure, and the essence of the lived experience of the phenomenon for a person or group of people” (Patton, 2002, p. 482). Selective coding yielded themes that subsumed the culled out categories. These new categories identified major themes to be drawn from the study that identified the factors that had impacted these students’ educational journeys. Patton stated it in this fashion; “What does this mean? What does this tell me about the nature of the phenomenon of interest? In asking these questions, the researcher worked back and forth between the data or story (the evidence) and his or her own

perspective and understandings to make sense of the evidence” (Patton, 2002, p. 477-478).

A retrospective study allowed for patterns to emerge, beginning with elementary school through the first two years of college. Using multiple case study, extensive data was interpreted to describe how twice exceptional students successfully navigated both internal and external factors and how these factors facilitated or inhibited their emotional and educational trajectory. Prior to new vocabulary in the reauthorization of IDEA (2004), these students have not been recognized as existing in the special education population.

Definition of Terms

Gifted

Gagné (2000) has defined giftedness in the DMGT as natural abilities in four aptitude domains: intellectual, creative, socioaffective and sensorimotor. For purposes of this study, giftedness is defined as students attending a selective institution of higher learning having completed 48 semester hours or more, who scored 1200 or greater on the SAT, and obtained a high school GPA of 3.0 or greater, and/or who have been identified prior to college as gifted and talented.

Talent Development

Talent development refers to the process that occurs over time that encourages the development of natural gifts throughout the numerous stages of life and ensures the probability that a person will obtain talent at a level of proficiency that is greater than their age appropriate peers (Gagne, 2000). Academic talent was addressed in this study.

Twice Exceptional

Students who are twice exceptional have demonstrated high ability in a specific domain, academic ability/intellectual ability, yet are impacted by a documented learning disability or cognitive impairment that creates the need for intervention or accommodations that works to level the playing field for these students and allows them to be successful in their academic endeavors (Brody & Mills, 1997; Silverman, 1993).

Learning Disability

The federal definition under P. L. 108-446 (DEC. 3, 2004) which is the new name for Education for All Handicapped Children Act (Public Law 94-142,1975), defines learning disabilities (LD) as:

"A disorder in one or more of the basic psychological processes involved in understanding or using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or do mathematical calculations."

The definition further states that LD includes perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. According to the law, LD does not include learning problems that are primarily the result of visual, hearing, or motor handicaps; mental retardation, or environmental, cultural, or economic disadvantage. Also required is a severe discrepancy between the child's potential (as measured by IQ) and his or her current status (as measured by achievement tests).

It is a requirement that students at the selective institution of higher learning must meet the same entrance requirements of all applicants without learning disabilities. Once

they are accepted, they must self-declare their disability(s) to the Office of Disabilities and must meet specific protocol stated in the learning disabilities definition. (See Appendix F) Students in this study meet the above criteria and were diagnosed with a learning disability (LD), a specific learning disability (SPL) or attention deficit hyperactivity disorder (AD/HD).

Attention Deficit Hyperactive Disorder (ADHD)

Attention-deficit Hyperactive Disorder (ADHD) is characterized by a particular set of behaviors that prevent a person from performing to his or her potential. These behaviors may include the following: susceptibility to distraction with little provocation, difficulty following instructions, difficulty sustaining situation-appropriate attention (except when watching television or playing video games), problems starting tasks, constantly beginning new projects without finishing the existing ones, hyperactivity, impulsivity, poor social skills, rapid satiation to stimuli, low frustration tolerance, academic underachievement (American Psychiatric Association, 1994).

Intrapersonal Catalysts

Catalysts: “Any agent that promotes a significant change” (1991, p. 214). The intrapersonal catalysts are subdivided into physical and psychological factors, all of them under the partial influence of the genetic endowment. The components of Physical and Psychological factors include: motivation and volition play a crucial role in imitating the process of talent development, guiding it and sustaining it through obstacles and boredom, and occasional failure; Motivational aspects; Directional or goal component (e.g. drives, needs, interests); Sustaining or Volitional component (digressions,

temptations, boredom, accidents, temperament); Personality traits; Personal beliefs -self-perceptions, implicit theory, attitudes and values; also resilience (Heller, 2000)

Environmental Catalysts

Environmental catalysts impact in many different ways. They exert influences at a macroscopic level (e.g. geographic, demographic, and sociological). They also impact in a microscopic context (size of family, personality and parenting style of caregivers, socio-economic status, and etc.). Different persons leverage positive and negative influences on talent development such as parents, teachers, peers, and siblings. Other environmental catalysts could be program provisions within or outside the school. Lastly significant events can impact the talent development process (death of a parent, winning a prize, suffering a major accident or illness) (Heller, 2000).

Significance and Contribution of the Study

Both in gifted education and special education, we do not completely understand how internal and external factors impact the lives of twice exceptional students. As stated previously, there is research available delineating the issues of special education students, particularly those with learning disabilities, and there is research surrounding the social and emotional needs of gifted children. The piece missing is the unique intersection and voice of these two groups who find their convergence in students with both exceptionalities. The knowledge in this area should lead educators to a better understanding of how to make counseling interventions, at which stage in the developmental process interventions are critical, and to determine which interventions are effective in the process. Much has been written about such students; however, most of

the evidence is anecdotal. Because of the diverse nature of this group, it is imperative that we begin with the source, the students themselves.

We already know we have not reached an efficacious intervention for such students, as exhibited by the conundrum still impacting the educational lives of these students. Much of the research in talent development converges around two critical issues. The first is the student's task commitment or ability to sustain time on that which is difficult, and the second is the student's motivation in areas of interest that propels them to the front of their particular talent area (Bloom, 1985; Csikzentmihalyi, 1993; Simonton, 1999; Ericsson, 1993). Discovering how to impact the affective development of these students can help educators make interventions targeted at interest, volition, perseverance, and motivation. It will also shed light on which environments work best for these students as well as which environments are detrimental to their progress.

There are no studies that definitively and systematically identify the components that shape and mold the intellectual talent development process for twice exceptional students during critical stages of development. The retrospective nature of the study gave a broad view of the three stages of formative schooling and the unique problems faced by these students at those junctures. The information and insight gained about intrapersonal and environmental catalysts, as defined by Gagne (2003), shed light on the critical periods and determined critical junctures during the educational journey of these students to date.

Chapter Two: Review of Literature

Research areas that are pertinent to this study and that impact the understanding of twice exceptional learners include: (1) Conceptions of giftedness, (2) the talent development process, (3) the etiology of the twice exceptional learner, (4) the social and emotional issues of twice exceptional students, (5) issues of attention deficit hyperactive disorder, and (6) learning disabilities: identification and intervention.

Conceptions of Giftedness

Tannenbaum (2000) wrote a review of the history of giftedness. He relates that beginning in Ancient Greece one finds evidence for talent domains that are similar to those gifted education identifies today. “In the case of Athenian culture, the talent domains were fairly much the same as those which would be eventually valued in the West. They include intellectual ability often expressed in philosophic speculation, moral excellence, political insight, literary, musical, oratorical, and artistic talents, as well as physical strength for beauty’s sake” (p. 28). In fact this broad conception of giftedness would dwarf the early conceptions of giftedness in the early part of the 1900’s when the major thrust proposed was based upon the threshold of a single IQ measure: (Galton, 1883, Terman, 1921, Binet and Simon, 1916).

Newer conceptions of giftedness are competitive with the Athenian notion of giftedness. “One finds that all new theories tend to favor multi-dimensional models of high ability. Examples of this multi-dimensional modeling can be found (Gagne 1985, 1993; Gardner, 1989; Heller & Hany, 1986; Heller, 1989; 1990; 1991, Ziegler & Heller, 2000). The field of gifted education finds itself currently trying to sift through the complexity of services which are necessitated by this broader conception of giftedness

and find a way to serve the needs and the means to identify in order to serve populations that before now have not been included in gifted education.

The wealth of information we have gained during this time and the numerous definitions and conceptions that have been proffered, have pushed the field to “develop a better understanding of how the brain functions, and has gradually changed the educational view of giftedness” (Monks & Mason, 2000, p.95). The evolution of how giftedness has been defined has moved from a single factor measure (g) (Spearman, 1927; Jensen, 1998; Carroll, 1993), to multiple factors on a continuum,(Gardner, 1999; Sternberg, 1996) to a domain-specific orientation of intelligence (Benbow & Stanley, 1996). “Conceptions of giftedness that focus on domain-specific considerations hold the most promise for promoting talent development in individuals at all stages of development because of the capacity to make appropriate correspondences between aptitudes and interventions, between predispositions and interests, and between the life of the mind and creating life in the real world” (VanTassel-Baska, 2005). How we understand giftedness impacts the way we implement programs and services for those deemed gifted. This progression has made crafting a concise definition of giftedness virtually impossible. In 1993, The National Excellence Report defined giftedness in the following way:

Children and youth with outstanding talent perform or show the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience, or environment. These children and youth exhibit high performance capability in intellectual, creative, and/or artistic areas, possess an unusual leadership capacity, or

excel in specific academic fields. They require services or activities not ordinarily provided by the schools. Outstanding talents are present in children from all cultural groups across all economic strata, and in all areas of human endeavor. (Ross, 1993, p.3)

Feldman, (2000) states that this definition was not an improvement but “reflects the tensions and shifts that have been occurring in the field; it serves more as a description of gifted children than as a definition of giftedness” (p. 145). New definitions seem only to add the potential of being gifted and the awareness of underrepresented populations that have not been typically identified in gifted programs. These components are important; however, the central ideas in the field of gifted education are still being debated.

Françoys Gagne, in his Differentiated Model of Giftedness and Talent, (DMGT) “proposes a clear-cut distinction between the concepts of gifts and talents” (Gagne, 2000, p. 67). In his model Gagne differentiates between giftedness and talent. He believes giftedness to be “the possession and use of untrained and spontaneously expressed natural abilities (called aptitudes or gifts) in at least one ability domain, to a degree that places an individual among the top 10% of age peers (p. 67). The DMGT suggests that in order to be talented, one must be gifted first; however, one can be endowed with a gift and never attain talent. “Talent designates the superior mastery of systematically developed abilities (or skills) and knowledge in at least one field of human activity, to a degree that places an individual within the top 10% of age peers who are (or have been) active in that field” (p. 67). The DMGT can be found in Appendix A of this paper.

Addressing different types of talent which fit with the talent development model are those suggested by Tannenbaum in his psychosocial conception of high ability (Tannenbaum 1983, 1991). Highest in valuation are the scarcity talents, so called because they are always in short supply (Tannenbaum, 2000, p. 25). “Society will always generate such talents as they appear, while thirsting for more and more since the shortage can never be filled, principally because the public’s motives are more self-preserving than self-serving” (pg. 25). Moving to the next societal valuation we find those gifts that are categorized surplus talents, “so called because their cumulative accomplishments, over the years are so abundant, rich, and varied that they exceed the capacity of individuals to sample and derive benefit from them all (p. 25).”

Although Tannenbaum ranks these talents, he ranks them by kind, not by value. They are simply different in the kinds of admiration they elicit from society and in the popular hierarchy of importance if a choice between them must be made (p. 25). The third talent listed is quota talents. These include “specialized, high-level skills needed to provide goods and services for which the market is limited” (p.25). All three of these talents emerge due to societal demand but only to a point. The last category would be anomalous talents including those which are either appreciated or disdained. “Yet, they reflect how far the power of the human mind and body can be stretched and still not be recognized for excellence” (p. 26). We can see how these categories fit in a systemic orientation. They are dependent upon the times, the context, and the need. “The four categories may encompass all forms of giftedness, but the differential categorization helps describe, if not fully explain, their differential acceptance” (p. 26).

A look at Renzulli's (1978, 1986) *Three Ring Model* is important when looking at different conceptions of giftedness. He proposes that giftedness is the interaction between above average intelligence, task commitment and creativity. "The three-ring conception of giftedness is a theory that attempts to portray the main dimensions of human potential for creative productivity. The name derives from the conceptual framework of the theory – namely, three interacting clusters of traits and their relationship with general and specific areas of human performance" (Renzulli, 2005). Sternberg (1986) posed his *Triarchic Theory* based on three sub-theories. One is 'componential', and consists of three kinds of components involved in the performance of mental operations: (1) meta components (2) performance components: (3) knowledge acquisition components. "The second sub-theory is 'experiential', which incorporates the ability to deal with novelty and the ability to automatize or habituate information processing. The third sub-theory is called 'contextual,' which refers to the organism's selecting, shaping, and adapting to its real-world environments" (Tannenbaum, 2000).

The range of conceptions of giftedness impact the programs and provisions allocated for these very able students. The way society has accepted the ideas of giftedness has vacillated across the decades. "Then as now, general attitudes toward differentiating education for the ablest has ranged from approval to apathy to ambivalence to antagonism" (Tannenbaum, 2000, p. 47).

How do these conceptions relate to the topic of twice-exceptional students? First, the sympathy for gifted students and services for them is at low ebb in today's emphasis on equity. Students that are disabled or disadvantaged are the focus of the current reform in education. Meeting the needs of twice exceptional students requires embracing both

the conceptions of giftedness and the services associated with these conceptions, as well as the research and interventions associated with students with disabilities. A unique bridging of these two conceptions must occur to meet the needs of these children.

The Talent Development Process

In a climate of reform that focuses on proficiency for all, the term “gifted” has come under scrutiny. The educational climate in today’s society has produced a desire to abandon the term “gifted” and embrace a more palatable and broadly applicable term “talent.” This extreme view is challenged by others in the field particularly François Gagné, who recommends that until there is consensus in the field of gifted education on the definition of the term gifted, it should be retained. Gagne (1995) makes an argument for retention of gifted based on the concept that giftedness is the possession of natural abilities. He states that “there is a close relationship between natural abilities (gifts) and systematically developed ones (talent); the latter are just the result of a modeling, an extension or adaptation of the former to a particular context, or to the specific demands of a field. Properly speaking, natural abilities are constituent elements or systematically developed ones” (1995, p. 106). He aligns himself with those who believe that genes play an active role in producing individual differences but genetics are only one of the factors influencing aptitude. He states, “that indeed, some persons are better endowed genetically than others; that there is nothing that one can do about this ‘injustice’; that this endowment is probably plurigenic (more than one gene is involved) so that the effect is not dichotomous, but produces a whole continuum of differences, in the same way that tallness and weight are not dichotomously distributed even though both are highly heritable” (Gagne, 1995, p. 358).

Traditionally, giftedness has been equated with a high IQ score, a simple quantitative index, or a cut-off point. In the late 1960's, concern about artistic excellence, creativity and specific academic aptitude emerged. By the 1980's, increased interest in the affective domain, multiple intelligences, and talent development further broadened the conception. Society's view of human talents and abilities has broadened considerably in the last three decades (Treffinger & Sortore, 1992). "Whereas until 15 or 20 years ago the field was dominated by one dimensional giftedness concepts and corresponding IQ measurement, a large majority of more recent models are based on multidimensional or multifactoral psychometric concepts of intelligence" (Heller, 2000, p.123).

Treffinger (1998) addresses talent development from the concept of "Levels of Service" (LoS) approach. He presents four levels of services: Level 1: Services for all students, Level 2: Services for many students, Level 3: Services for some students and Level 4: Services for few students. "In the LoS approach, many services and activities are blended with other school activities in order to respond to students' talents, strengths, and sustained interests. The approach is never a 'one size fits all' model and always offers many options, depending on the range of interests and abilities of the students" (p. 4).

VanTassel-Baska (2001) cites three studies she considers landmark in the area of talent development. "These studies include Benjamin Bloom's on developing talent in young people (1985), Mihalyi Csikszentmihalyi's on adolescent talent development (1993) and Andrew Ericsson's work on the role of practice" (1993 p. 21). Bloom (1985) illuminated the similarities of talent development in different domains, the fact that talent

development is emergent and evolving over time, and the importance of individual differences, parentage, and the availability of a mentor or teacher. Csikszentmihalyi (1993) focused on the impact of the teenager's context and what occurred outside of the structure of school. He confirmed the process of "flow" or the ability for these students to become very engrossed in their talent area to the point of losing track of time as they engage in activities that are centered on their great passion and commitment to their particular interest. Ericsson (1993) was cited for his research on runners and chess players revealing how expert performance emerges "through experience, instruction, and the amount of deliberate practice" (In VanTassel-Baska, 2001, p. 22).

Feldhusen states that "talents emerge from general ability as a confluence of genetic dispositions, home and school experiences, and students' unique interests and learning styles" (1992 p. 10). His proposal of the Talent Identification and Development in Education (TIDE) proposed four general domains for talent development: Academic-Intellectual, Artistic, Vocational-Technical, and Interpersonal-Social. Feldhusen states that "Talent Development in Education offers a conception of giftedness and talent that should replace older conceptions of 'The Gifted Child.'" (p. 14)

Gardner (1983) also encouraged educators and psychologists to begin to view human intelligence and talent from a new conceptual framework. He framed eight and a half intelligences based on a review of a variety of psychological research. "Gardner also speaks of a 'giftedness matrix' which emerges in youth as a combination of two or more of the intelligences, acquired knowledge, and skills, and interests-motivators. All are conditions or developed by the range and nature of experiences available to the individual" (Feldhusen, 1992, p.12).

The term “talent” enjoys more acceptability amidst current sociological and ideological thinking. “The overall process from childhood on to adulthood is a continuous development of talents or abilities” (Feldhusen, 1998, p. 13). This has led to an embracing of the term “talent development” over “gifted education.

Talent development refers to the process that occurs over time that encourages development of natural gifts throughout the numerous stages of life, and ensures the probability that a person will obtain talent at a level of proficiency that is greater than their age appropriate peer. Gagne (2004) has developed a model of talent development that merges many concepts throughout the field and attempts to bring clarity to definitional terms and broad concepts used by the field of gifted about talent development and giftedness. He states,

High natural abilities or aptitudes act as the ‘raw material’ or the constituent elements of talents. It follows from this relationship that talent necessarily implies the presences of high natural abilities; one cannot be talented without first being gifted. The reverse is not true, however. It is possible for high natural abilities to remain simply as gifts and not be translated into talents, as witnessed by the well-know phenomenon of academic underachievement among intellectually gifted children. The process of talent development manifests itself when the child or adolescent engages in systematic learning, training and practicing; the higher the level of talent sought, the more intensive these three activities will be (p. 2).

VanTassel-Baska (2001) uses four overarching concepts regarding talent development that are congruent with the Gagné model: (1) aptitude and predisposition for specific fields based on interests, personality, and values. (2) Effort and practice over time to build skills and particular predisposition. (3) Models and mentors as catalysts for shaping the minds and hearts in a particular field. (4) Quality instruction and master teachers for skill development, encouragement, and individual attention.

The Etiology of the Twice Exceptional Learner

As discussed earlier, teachers are cognizant of and struggle with a recurring anomaly that exists among individual students. This anomaly reappears year after year as teachers labor to discern where these hard-to-place students fit in the educational system, and yet they cannot seem to find an appropriate placement or services that address their needs adequately. Confounding factors create a barrier that makes it difficult to ascertain exactly how to meet the needs of these children. Winebrenner (2000) states the conundrum in this fashion. “At workshops, I often hear statements of extreme frustration with students who defy accurate description. In some ways their clear exceptional abilities are apparent. But in many other ways, their learning deficiencies seem to make it nearly impossible for learning success to occur even in areas of greatest strength, because these students often skip important steps in learning as they make intuitive leaps towards answers or problem solutions” (p. 132).

History is replete with examples of gifted men and women with disabilities who have made significant contributions to society. For example: Thomas Edison, Helen Keller, and Franklin Roosevelt (Goertzel & Goertzel, 1962). Others include Albert Einstein, Woodrow Wilson, and Auguste Rodin who had learning problems in reading,

writing, and spelling (Thompson, 1971). “Despite the widespread recognition of a few such individuals, we have no way of knowing how many more individuals with disabilities failed to develop areas of potential giftedness because of lack of recognition and support. In the past, gifted children with disabilities have fallen through the cracks and have defied identification. When they received special educational services, it was only in the area of their disability without provision for their gifts and talents” (Yewchuk & Lupart, 1993, p. 659). Silverman (1989) confirms the existence of these children who often defy the criteria set forth by IDEA. They cannot operate at the level of their real potential because their disability continues to impede the true intelligence that goes unnoticed. She notes:

The problem is that when two exceptionalities exist in one child they tend to mask one another so that neither the giftedness nor the disability is immediately evident. Disabilities depress these children’s IQ and achievement scores, disqualifying them for gifted programs; in addition, high intelligence enables them to compensate well enough for their weaknesses to maintain grade or qualifying for special education services. Catch 22! In our zeal to compute ‘averages’ of people’s abilities, giftedness and handicaps cancel each other out, leaving these children to appear ‘average’ (p. 1).

The difficulty is compounded by an educational priori that emphasizes a special education focus that broadly identifies and serves students with disabilities without looking for concomitant strengths during the child study process. Rather than being focused on what is right with the child, services are appropriated only as they identify

what is wrong with the child. Mooney and Cole (2000), two gifted young men who went through the school system with learning disabilities, describe this gross misapplication of the educational disabilities legislation:

The day we were diagnosed as “disabled” is one of those memories that burn too bright to go away. It sits at the core of our identity, bridging our consciousness and our subconscious, holding the key to our development, and it flickers like the buzz of a white fluorescent light bulb. . . In the end, the biggest challenge for us was not overcoming our weakness as LD/ADHD thinkers, but transcending the biases and oppression of the institution of education.

Despite our intelligence, despite the areas of profound strengths that were in fact vastly superior to those of our peers, we became simple and easy to understand, we knew it all along, but it now had a name: ‘chronic disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written.’ Ultimately our diagnoses and the subsequent attempts at interventions allowed people to blame us, two powerless kids, for our failure instead of turning a critical eye toward the environment. . . It took us fifteen years of personal and academic struggle to stop blaming ourselves, to stop believing that we are inherently defective like ‘they; thought, and to come to realize how profound an effect the environment had on our inability to succeed. Only as time went on did simple interventions like the ability to get up out of our seats, the use of a spell checker, and progressive ideas like project-

based learning and other modifications to the learning environment allow the pathology to slip into irrelevance and enable us to be successful (pp 63-65).

Both of these young men are now graduates of Brown University with honors in their chosen fields. While school systems focus on disabilities, they often do not recognize and develop gifted potential; in fact they further complicate the education of the gifted student and completely ignore the social and emotional issues that are inherent in being caught in this dichotomy. "It is not unexpected, then, to find a significant discrepancy between the measured academic potential of these students and their actual performance in the classroom" (Whitmore & Maker, 1985). The list of social emotional issues that could potentially impact these highly able gifted students is long. Whitmore's (1980) text describes characteristics of underachievers that parallel another list of researched characteristics of learning-disabled gifted children. These students are perfectionistic, supersensitive, socially isolated, have unrealistic self-expectations, are low in self-esteem, hyperactive, distractible, have psychomotor inefficiency, chronically inattentive, frustrated by demands of the class room, fail to complete assignments, rebel against drill and excessive repetition, are disparaging of the work they are required to do and tend to become "an expert" in one area and dominate discussions with their expertise (Rosner & Seymour, 1983; Maker, 1977; Pendarvis & Grossi, 1980; Schiff, Kaufman & Kaufman, 1981; Tannenbaum & Baldwin, 1983; Wolf & Gygi, 1981; Daniels, 1983; Whitmore, 1980). These children's problems are exacerbated unintentionally by IDEA legislation that mandates the testing and servicing of students who have special education needs. In an effort to reach those students not making adequate annual yearly progress,

the students who are making annual yearly progress (AYP) but are achieving below the threshold of their outstanding abilities are ignored and left to find their way through trial and error. Thus fostering a loss of educational enthusiasm, and the lack of opportunity to work in the areas where they show great talent because they are doing all they can to stay average.

The highly funded mandates Public Law 94-142, The Education for all Handicapped Children Act, Public Law 101-476, the 1990 Individuals with Disabilities Education Act (IDEA), the 1997 Amendment to IDEA, Public Law 105-17, and the newly signed Individuals with Disabilities Improvement Act (2004) has put pressure on the system to locate children with disabilities without acknowledging their strengths. However, as stated earlier, the new authorization of IDEA (2004) has used language for the first time that includes the twice exceptional student.

The separation of the field of gifted and special education further exacerbates the problem. The two fields have similarities but very little collaboration. Both fields address deviance from the norm. In an interview by Whitmore, Karnes noted that teachers of the gifted are usually unaware of handicap services, while teachers of children with handicaps are not trained to recognize potential gifts and talents. In some instances, state consultants for gifted children may not even know their fellow consultants for children with disabilities (Whitmore, 1989). The lack of integration between these two specialized areas creates a trap that disabled gifted children cannot escape. They find it incumbent upon themselves to navigate life without services that could aid them in traversing their own strengths and weakness in a fashion that would lead them to the most successful outcomes individually.

Gifted children with disabilities are known to exist in the three categories mentioned earlier (Baum, Owen & Dixon, 1991; Fox Brody, & Tobin, 1983; Landrum, 1989; Starnes, Ginevan, Stokes, & Barton, 1988). The first group is those who have been identified as gifted, but continue to have difficulty in school. These students are often considered to be lazy or unmotivated. Their disability, which is hidden early on, becomes noticeable as school becomes more challenging and they start to fall behind (Silverman, 1989; Waldren, Saphire, & Rosenblum, 1987; Whitmore, 1980). The second group is those that have been identified as having a learning disability but whose exceptional abilities have never been recognized (Baum, 1985). The third group and possibly the largest are those students whose abilities and disabilities mask each other. These are often called the “hidden gifted” or the “hidden disabled,” who are putting so much of their effort to overcome their disability (Brody & Mills, 1997).

Given the complexity inherent in each identified category, one can easily see the social emotional ramifications embedded both in the personal and educational aspects of these doubly exceptional children. Twice exceptional children need a safe harbor in which to compensate or remediate their disabilities, while at the same time, an empowering environment that is crafted to emphasize their high ability areas as a spotlight to increase their visibility and success. This will in turn infuse them with energy to stay focused during work on their individual deficits. Winebrenner (2000) puts it this way: “When teaching these students in their areas of strength, offer them the same compacting and differentiation opportunities available to other gifted students. When teaching in their areas of challenge, teach them directly whatever strategies they need to

increase their learning success; never take time away from their strength areas to create more time to work on their deficiencies” (p. 133).

How does this dichotomy play itself out amidst the educational context and climate that exists in the United States? These gifted disabled children are at greater jeopardy now more than ever before because of the focus the federal education system has placed on student proficiency based on state standards. This push for proficiency narrows the focus of educators to general education and the core standards that must be met by all students. The natural result is intense remediation targeted toward compensatory skills necessary for students with disabilities. The focus on accountability, via state standards and testing, has made it more likely that these children will continue to be neglected as well as the social emotional issues they struggle to overcome.

Nowak (2001) frames the problem from her anthropologic viewpoint. She speaks to the paradoxical nature of giftedness and disabilities. She calls for a focus on the double abnormality “focusing the light on the plight of children who, in purely statistical terms might be regarded as being doubly abnormal. More specifically, the ‘non-normalcy’ of these students in the educational system may be seen as a result of their simultaneous position – publicly verified by formal evaluation processes – at both the ‘surplus’ as well as the ‘deficit’ ends of a continuum of performance traits deemed relevant in the school setting” (p. 2). The focus today is pointed towards the ‘deficits’ and unfortunately results in very little sympathy for the ‘surplus’ side of the individual. The popularity of the inclusion model by the educational system has created a ‘push-in model’ that underserves gifted students at the moment, and will certainly cause this

unique population, straddled between the two ends of the continuum, to remain underserved.

Sharon Dole (2000) has noted the heightened risk placed on children with learning disabilities who are gifted. She lists the following social emotional characteristics of such children that increase their vulnerability: poor self-concept, poor self-efficacy, hypersensitivity, emotional ability and high levels of frustration, anxiety and self-criticism. Blacher (2002), cites that “the single largest factor that distinguished the high ability/LD groups from other groups was a sense of “inefficacy” in school. Although they demonstrate creative potential, they also demonstrate disruptive behaviors and low levels of academic success. These two qualities place them at academic and behavioral risk, and on a potential trajectory that will lead to school failure. “This is a big price to pay for overlooked strengths or deficits” (p. 4).

Yewchuk (1985) states the twice exceptional conundrum this way: “Because of their contradictory characteristics, arising from superiority or excellence in some areas of functioning and inferiority or failure in others, the gifted/learning disabled are doubly at risk socially, psychologically and educationally. They face immense difficulties regarding general acceptance of their existence, accurate identification of their strengths and weaknesses, and educational programming relevant to their special needs” (p. 122). This phenomenon becomes a paradoxical combination of giftedness and different forms of disabilities.

The biggest deficit these twice exceptional students face is the likelihood that nothing will be done educationally to enhance both their strengths and weaknesses.

Yewchuk (1985) states that “without special programming geared to both their giftedness

and their learning disability, these children will continue to suffer, be misunderstood by educators, parents, and themselves” (p.126). There are characteristics that both the gifted and the learning disabled population share ((Whitmore, 1981; Pledgie, 1982; Udall, 1985; Whitmore & Maker, 1985; Yewchuk & Bibby, 1989a, Meisgeier, Meisgeier & Weblo, 1978; Nielsen & Mortorff-Albert, 1989; Vespi & Yewchuk, 1992)). The lists of these similar characteristics, both positive and negative are: (1) Superior memory and general knowledge; (2) superior analytical and creative problem solving skills; (3) notable drive to know, or master; superior use of language, oral or written; (4) exceptional comprehension; (5) keen sense of humor; (6) persistence in pursuit of academic or intellectual tasks; (7) awareness and/or ability to capitalize on personal strengths; (8) struggles with self-acceptance; (9) fragile self-concept; (10) feelings of social discomfort, embarrassment, shame; (11) intense frustration and anger; (12) a need to release or vent pent-up energies; (13) interpersonal difficulties with peers, teachers, and family.

Social Emotional Issues among Twice Exceptional Students

Inherent in the preceding section on twice exceptionality is a complete list of social emotional issues that are part of the makeup and functioning of these students. Other voices in the field confirm these social emotional problems and try to put a larger framework around the complete struggle that these children face.

Blacher (2002) addressing the issue of resilience has noted three categories of protective factors that serve to buffer individuals' responses to stressful life events. These three categories are relevant to students that are gifted with learning disabilities: (1) personality factors (e.g. self-esteem, coping strategies), (2) family cohesion and lack

of disharmony, and (3) external support systems. However, the number one protective factor in the lives of children who are twice-exceptional is ongoing parental understanding and support (Blacher, p.4) All three of these categories represent the broad spectrum of social emotional issues that twice exceptional children must navigate.

There are social and emotional issues associated with children with disabilities and social and emotional issues related to students that are gifted. Twice exceptional children wrestle with both sets of issues; however, the fact that they function cognitively at a higher level creates greater dissonance for them than the average to below average disabled students. They are aware of the impact their disability has on them, which does not square with the knowledge they have of their abilities. Nowak (2003) sums up the anxious appeal for these twice-exceptional students from a parental perspective in the conclusion section of her paper *Double Inequity, Redoubled Critique*.

From the purely pragmatic (rather than ideological) viewpoint of the parent of twice-exceptional students, what they desire is a less emotionally painful, less intellectually wasteful, more hope-affirming and ultimately more life-affirming educational experience for their undeniably 'different' sons and daughters. For them, this often necessitates a struggle they must fight against school officials to obtain a dual label for their children – 'gifted' as well as 'learning disabled'- which would ideally bring forth both needed remedial services and/or accommodations for the disability as well as what could be life-saving support for and affirmation of the child's special talents and abilities (2003, p. 10).

Nowak succinctly states the plight of the parent and the plight of the students trying to navigate the unpredictable waters of the educational system. Another strong voice in this appeal is Bireley (1991) who advocates for the twice exceptional child by reminding educators that “when gifted students with disabilities are treated as handicapped to the neglect of their intellectual ability, a ‘handicapped’ or dependent pattern of behavior is likely to emerge. However, a supportive, facilitative environment can foster the emergence of a ‘gifted’ pattern geared toward success in academic endeavors and social interactions with peers” (p. 1995). Most of what we know about social emotional issues that relate to these children are issues drawn from gifted children and issues drawn from students with special needs. (Colangelo, 2002) suggests that social and emotional issues are present because of the student’s exceptional ability, as well as the messages that students receive from society about exceptional talent are only ambivalent in regards to intellectual talent. Depression, anxiety and isolation are among the common difficulties with gifted students. It is also possible to be gifted and disabled (or have a disorder) simultaneously. As gifted students progress in school they become more anxious and isolated.

One well known trait of gifted children is the presence of “asynchronicity.” “Asynchrony in the gifted means a lack of synchronicity in the rates of their cognitive, emotional and physical development” (Morelock, 1992, p.11). Linda Silverman states that

Giftedness is asynchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm. This asynchrony

increases with higher intellectual capacity. The uniqueness of the gifted renders them particularly vulnerable, and requires modifications in parenting, teaching and counseling in order for them to develop optimally” (Silverman, 1993, p. 3)

Along with Silverman, Dabrowski has focused work on the emotional intensity that is part of this asynchronistic development. He suggests that children, particularly among the gifted population, demonstrate “a commonly observed phenomenon – the heightened awareness of the gifted and the associated heightened capacity to respond to various stimuli. Dabrowski call this tendency ‘over- excitability’” (Gross, 1994, p. 3). This word is the translation of a Polish word which means ‘super-stimulatability’, “and it carries positive connotations, such as an insatiable love of learning, the capacity to care intensely for people and ideas, boundless energy and vivid imagination. Dabrowski identifies five ‘over-excitabilities’: intellectual, emotional, imaginal, sensual and psychomotor” (Dabrowski, Kawczak, & Piechowski, 1970). These over-excitabilities set gifted children apart from their age peers. Manaster and Powell (1983) describe gifted students as being out of stage, out of phase, and out of synch.

One of the broad social emotional issues gifted children and children with disabilities struggle with is the awareness of being different.

“When parents and teachers understand the implications of the differentness inherent in being gifted, they can create conditions that will support the child’s positive social and emotional growth. The first step is to realize the inextricable link between social and cognitive development. . . If the child also makes the discovery that communication with classmates

is difficult, and that others do not share his/her vocabulary, skills, or interests, peer interactions may prove limited and unsatisfactory. We cannot ignore the gifted child's need for intellectual stimulation and expect social development to flourish" (Roedell, 1988, pp. 10 – 11).

Silverman (1987) lists specific problems gifted children deal with that are internal as well as external: difficulty with social relationships, refusal to do routine, repetitive assignments, inappropriate criticism of others, lack of awareness of impact on others, lack of sufficient challenge in schoolwork, depression, high levels of anxiety, difficulty accepting criticism, hiding talents to fit with peers, nonconformity and resistance to authority, excessive competitiveness, isolation from peers, low frustration tolerance, poor study habits and difficulty in selecting among a diversity of interests,"

Strop and Goldman (2001) address the social and emotional issues of twice exceptional students. These gifted students with disabilities struggle with many of the same problems as their gifted peers without disabilities; however, the social emotional issues are multiplied against the backdrop of trying to overcome learning challenges. These children struggle with anger, fear of failure, a strong need to control, low self esteem, and sometimes even fear of success. Abrams (1986) stated, "The vast majority of children with learning disabilities have some emotional problem associated with the learning difficulty" (p. 190). Gorman lists five main ways in which emotional concerns and learning disabilities interact. He states that learning disabilities may lead to emotional distress, such as depression, loneliness, and low self-esteem. Learning disabilities also may raise or exacerbate existing emotional concerns like sadness and anxiety. Emotional issues may mask a child's learning disability by acting out behaviors or personality

features, somatic complaints, and distracting the teacher. It is possible that emotional issues will exacerbate learning disabilities. This is often seen by deficits in cognitive processing, which are sufficient to cause major learning problems in academic areas and are probably sufficient to cause major learning problems in nonacademic areas as well (Bender & Wall, 1994, p.323). Conversely, emotional health may enhance the performance of children with learning disabilities.

Silverman (1989) speaks to the issue when she states “that many learning-disabled gifted children have been badly wounded in the traditional system. The damage to these children’s self-esteem can be healed if they have the chance to work with caring, sensitive teachers who recognize their potential. Children respond to those who believe in them (p.9).” Most research has focused on academic and social issues, rather than emotional ones (Colangelo & Davis, 1997). Studies present two sides to the social emotional issue. “Certain subpopulations of gifted children (lower socio-economic status, single parent, African American, gifted children with disabilities, and the highly gifted) have been found to be at risk for poor social adjustment (Ford 1996: Moon, Zentall, Grskovic, Hall & Stormont-Spurgin, 2001). Less is known, however, about how this subpopulation of gifted children regulates their affect (Ford & Harris, 1995; Frasier, 1993). Vulnerability to isolation and loneliness has been found in this population, which are many times precursors to depression and anxiety reactions (Kaiser & Berndt, 1986; Jackson, 1998; Kline & Short, 1992). Neihart (2002) confirms these findings. “The negative school experiences that these students encountered included: repeated punishment for not completing work on time, retention (repetition) of a grade attributed to the participant’s learning disability; placement in a self-contained special education

class in which the majority of students were developmentally delayed or had been identified as mentally retarded; and negative, inappropriate treatment by peers and teachers” (p. 179).

Issues of Attention Deficit Hyperactivity Disorder

William James mentioned the type person that demonstrates AD/HD in his writings in 1890. “There is a normal type of character, for example, in which impulses seem to discharge into movements that inhibitions get no time to arise. (James, 1890, pp. 537-538). This description is congruent with Barkley’s model of AD/HD. He states that “inhibitions serve as a central manager. The behavioral inhibitive system allows an individual to initiate a response, inhibit a response, interrupt an ongoing response, or deal with interference from the outside” (Barkley, 1997, p. 62).

George Still (1902) is considered to have rendered the first modern description of the group of symptoms associated with AD/HD. He describes them as having a “morbid defect of moral control over their own behavior” (Still, 1902, p. 1011). Children with these clusters of symptoms were considered to have minimal brain dysfunction. Today there are numerous opinions as to the cause of AD/HD; however, no one cause has been definitive.

“Functional impairments are the manifestation of the core symptoms of AD/HD – inattention, hyperactivity, and impulsivity – during the course of a day. They may be thought of as the inability to meet obligations or complete tasks such as routine activities as well as large projects, in a developmentally appropriate manner” (Duesenberg, M.D., 2003). Functional impairments are what drive a parent or an educator to question what needs to be done to assist the child to being successful. Over the course of six hours in

each day in classrooms, students are expected to pay attention, sit in desks, and complete tasks; however, symptoms of inattentiveness, hyperactivity, and impulsiveness keep the child from being able to accomplish these tasks. Consequently, students with AD/HD do not meet their objectives. They often are disciplined for disruptive behavior, require tutoring, fail to keep up with peers, and, as they reach high school, drop out of school altogether.

“Attention Deficit Disorder has been called many things over the years. Still’s disease and Impulsive Disorder were early attempts to describe overly active and impulsive children. Later, the terms Minimal Brain Damage and Minimal Brain Dysfunction scared the daylights out of many parents” (Phelan, 2000, p. 13). Other attempts to describe the disorder followed. The DSM-III (1980) was the first to use the term attention deficit disorder. Two types of ADD were described; one with hyperactive and one without. Phelan describes the change of the description across the evolution of the DSM-III-R, which deemphasized hyperactive and impulsive symptoms and focused on inattentiveness and restlessness to the DSM-IV which focused predominantly on the inattentive type.

The American Psychiatric Association has described the disorder as the most common neuropsychiatric disorder of childhood. Attention-Deficit Hyperactive Disorder (ADHD) is characterized by a particular set of behaviors that prevent a person from performing to his or her potential. These behaviors may include the following: susceptibility to distraction with little provocation, difficulty following instructions, difficulty sustaining situation-appropriate attention (except when watching television or playing video games), problems starting tasks, constantly beginning new projects without

finishing the existing ones, hyperactivity, impulsivity, poor social skills, rapid satiation to stimuli, low frustration tolerance, academic underachievement (American Psychiatric Association, 1994).

Estimates of the occurrence of AD/HD among school age children vary from 0% to 16% (Lahey et al., 1999). Barkley, a leading expert in the field states that “no matter what country we look at, AD/HD by DSM-IV criteria, occurs 1 in 16 people (about 6%)” (Barkley 1998, p.82). Since its appearance in the Diagnostic and Statistical Manual of the American Psychiatric Association in 1980, there have been dramatic increases in the number of individuals diagnosed and the rate for ADHD in North America. For instance the number diagnosed more than doubled, increasing from nearly 950,000 to more than 2.3 million (Barkley, 1998).

In the field of gifted education, Neihart (2003) suggests two points that are worthy of consideration.

- 1) AD/HD high ability children are more impaired than other AD/HD children, suggesting the possibility that we are missing gifted children with milder forms of AD/HD.

- 2) High ability can mask AD/HD, and attention deficits and impulsivity tend to depress the test scores as well as the high academic performance that many schools rely on to identify giftedness. Also, teachers may tend to focus on the disruptive behaviors of gifted AD/HD students and fail to see indicators of high ability

A study by Moon (2001) underscores the risks involved when gifted children are identified late. They are at risk of developing learned helplessness and chronic

underachievement. This is exacerbated since children with AD/HD are developmentally delayed two to three years in social and emotional maturity (Barkley, 1998). Studies have found that gifted children follow this same trajectory ((Kaufman & Castellanos, 2000; Moon, 2001; Zentall, Moon, Hall, & Grskovic, 2001).

AD/HD is considered to have underlying problems associated with executive function deficits “that have a specific impact on learning, emotional functioning and interpersonal relationships. In fact, deficits in executive functions decrease the ability of gifted children with AD/HD to show what they know, to learn efficiently, and to deal effectively with frustration and challenged” (Lovecky, 2004, p. 77). The areas of executive functioning affected by AD/HD include problems with working memory; internalization of speech; arousal, activation, and effort; holistic/sequential performance; emotional control; and delaying gratification.

A theory of emotional development of gifted individuals (Dabrowski & Piechowski, 1977; Piechowski & Colangelo, 1984; Olenchak, 1994; Piechowski, 1991; Silverman, 1993) takes a different look at the AD/HD and gifted phenomenon. Dabrowski explains the qualitative differences between humans and their development. He proposes a theory to explain this asynchronicity in gifted individuals as “increased psychic excitabilities” that predict extraordinary achievement (Nelson, 1989). The concept of overexcitabilities is described as:

An expanded and intensified manner of experiencing in the psychomotor, sensual, intellectual, imaginal, and emotional area. . . As personal traits, overexcitabilities are often not valued socially, being viewed instead as nervousness, hyperactivity, neurotic temperament, excessive

emotionality and emotional intensity that most people find uncomfortable at close range. (Piechowski & Colangelo, 1984, 81)

The work of Dabrowski is helpful when addressing the social and emotional needs of gifted children in general and perhaps AD/HD in particular. Gifted children are often referred to as being out of sync with their peers emotionally and intellectually. They are described as exhibiting uneven development. Silverman (1993) states that asynchrony “incorporates the emotional dimensions, emphasizing the interrelationship of cognitive complexity and emotional intensity” (p.2) Gifted children often demonstrate AD/HD like behavior in their zeal and excitement in their gifted areas or they may become fidgety and disinterested when material is unchallenging or boring.

In order to address the needs of the student with AD/HD, they must be addressed on an individualized basis, taking their presentation of symptoms into consideration. “Suggestions for changing disruptive classroom behaviors include use of behavior management techniques, social modeling and self-monitoring techniques, and providing structured environments. The curriculum must be differentiated to challenge and stimulate” (Kaufman & Castellanos, 2000).

Learning Disabilities: Identification and Intervention

The terminology and ideology associated with the concept of learning disabled (LD) children was found in literature in the late 1940's. LD was first considered to exist due to a brain injury or brain dysfunction, which was believed to be caused by an injury to the brain prior to birth. “Children diagnosed as brain-injured demonstrated problems in perception, preservation, or behavior (Baum, 2004, p.13).”

In the next decade the term brain-injured was replaced by the term “Strauss Syndrome” (Stevens & Birch, 1957). “Strauss, Lehtinen, and Kephart worked closely together; ultimately they recommended a distraction-free environment, thus placing a heavy emphasis on the remediation of perceptual disturbances which they believed would aid students with LD” (Carlson, 2005). Their work was focused on the research of perceptual, perceptual-motor, and attention disabilities of adult who had experienced brain injuries. They recommended specific instructional interventions related to the areas they had studied. These were utilized to bring more objective focus for defining the learning difficulties these children displayed. Prior to this, children were diagnosed based on an unobserved brain injury. “These characteristics describe children who are today often diagnosed with ADD or as having non-verbal learning disability (Baum, 2004, p. 14).” These students were not considered mentally retarded; since their aptitude fell from the average range to sometimes superior in intelligence. They displayed learning difficulties not congruent with their tested intelligence. Kephart continued researched surrounding the area of perceptual development. “He was one of the first researchers to incorporate neurological networks into his theory of development, and he concluded that discovery by a child of how certain movements can affect their environment, such as eye-hand coordination, substantiated his theory” (Carlson, 2005). During the 1970’s and 80’s when many educators embraced holistic, developmental approaches to reading instruction, researchers and other advocates associated with learning disabilities were among those who bucked the popular trend and campaigned vigorously for systematic teaching of phonological skills, sound-symbol relationships,

contemporary reading research (e.g. National Reading Panel, 2000; Snow, Burns, & Griffin, 1998; Vaughn & Linan-Thompson, (2004).

Most of the programs that were created for these children were created based on the work of the following theorists Cruickshank, Bertzen, Goldstein, Kephart, Lehtinen, Ratzeburg, Strauss, and Tanhauser. Most of these interventions were based on the medical model. Those in education that could not make the medical model practical and applicable to the classroom began to desire a better method to meet the needs of these students. From about 1960 to 1975 learning disability began its emergence as a formal category.

Roger Kirk (1963) first used the term learning disabled to describe children who demonstrated developmental disorder in receptive language, speech, reading, and communication skills. He ruled out children whose learning problems could be attributed to sensory, intellectual, or emotional deficits. Kirk and his colleagues argued that most LD resulted from underlying language learning problems, which in turn were based on some perceptual or cognitive processing difficulties (In Baum, 2004, p. 14) “Advances in neuroimaging techniques and genetic research have provided accumulating evidence of a biological basis, indicating that many individuals identified as having learning disabilities have genetic or other neural anomalies” (Franck et al., (2002); Galaburda, 1993). Such evidence has helped to make the argument that learning disabilities are real, not imaginary. In addition, some recent evidence points to the possibility that direct and systematic instruction affects brain activity (e.g., Shaywitz et al., 2004; Simos et al., 2002).

Directing the problem away from brain injury and actually focusing on the learning processes and how teachers could target student's strengths to compensate their weaknesses eventually created new terms for the disorder. "Terms such as reception, closure, sound symbol association, and memory were popular with these theorists (Baum, 2004, p. 15)."

The behaviorist's movement gained popularity in the 70s. Behaviorists were not as concerned with why the deficiencies existed but began targeting direct remediation techniques to specific material that needed to be mastered by the student (Baum, 2004). The United States federal government became involved in learning disabilities through task forces, legislation, and funding during the 1960s and 1970s (Hallahan & Mercer, 2001). This involvement produced a federal definition for learning disabilities in 1977. The law established regulations that governed the identification of students with LD that utilized the concept of an ability-achievement discrepancy. The most commonly used definition first appeared in Public Law 94-142, The Education for All Handicapped Children Act (Federal Register, 1977). It was also part of Public Law 101-476, the 1990 Individuals with Disabilities Act (IDEA), and the 2004 changes to IDEA, Public Law 108-466.

From 1975 through 1985, a period of targeted applied research emerged. This resulted in empirically-validated educational interventions for students with disabilities. Research was being conducted at five major research institutes that focused on LD. They were: Columbia University researching information processing difficulties; University of Illinois at Chicago researching social competence and attributions about success and failures; University of Kansas researching educational interventions for adolescents;

University of Minnesota researching the decision-making process related to identification and on curriculum-based assessment; and University of Virginia researching children with LD who also had attention-problems and on providing strategies for direct use on academic tasks (Hallahan et al., 2001)

Lloyd and Hallahan (2005) note that five universities have been engaged in learning disabilities research, each focusing on their own particular aspect of learning problems; however, it is notable that regardless of their research methods, each of the institution's findings have been remarkably consistent in what they have discovered related to interventions. They have laid a foundation for using empirically validated practices, especially direct and explicit instruction, active student engagement, and teaching of cognitive strategies (Kneedler & Hallahan, 1983). "Progress monitoring began as an application of applied behavior analysis to learning disabilities, was expanded and refined into curriculum-based assessment of measurement by researchers at the Minnesota institute, and then became a required component of Reading First" (e.g., Deno, 1985; Good & Kaminski, 2002; Howell, 1986; Lovitt, 1967). Research targeted at specific remedial interventions not only benefits students with learning problems, but has also had an impact on regular classroom instruction. "Teaching students to approach tasks systematically represents a similar contribution from the field of learning disabilities to education in general" (Lloyd and Hallahan, 2005, p. 1).

A review of the research reveals increased interventions and strategies instruction for students with learning disabilities which validate "intensive instruction that involves helping students maintain a high degree of attention and response during instructional session that are scheduled as frequently and consistently as possible. Intensity is

achieved by progressive pacing, frequent question-answer interactions, and frequent activities that require a physical response (e.g. pointing, writing, raising hands, repeating” (Deshler, 2005). Intensity can also be achieved through reflective or open-ended questions, if the activities are focused on a process that engages interest and maintains the student’s attention (Deshler, 2005). Swanson & Deshler (2003) detailed several interventions that have been found to be effective for adolescents (e. g. questioning, sequencing and segmentation, explicit skill modeling and practice, scaffolding. Even though research evidences that these practices help learning disabled students, there is evidence that much of instruction that currently takes place with adolescents with learning disabilities (both in general education and special education class settings) does not adhere to these validated instructional practices (Shumaker, et al., 2002)

“One of the most frequently cited deficiencies of gifted and learning disabled students is their weakness of memory (Bees, 1998; Dole, 2000; Ferri & Gregg, 1997; Fetzer, 1000; Robinson, 1999; Weinfeld, et al., 2002), Willard-Holt, 1999). Many memory techniques exist from research on learning strategies. A few are listed from the literature: LINKS (Deshler, Ellis, & Lenz, 1997); (1) list the parts, (2) imagine the picture, (3) note a reminding word, (4) construct a LINCing story, and (5) self-test. Another is FIRST & LISTS (Deshler, Ellis, & Lenz, 1996). FIRST: (1) For a word, (2) Insert a letter, (3) Rearrange the letters, (4) Shape a sentence, and (5) Try combinations. LISTS: (1) Look for clues, (2) Investigate the items, (3) Select a mnemonic device using FIRST, (4) Transfer the information to a card, and (5) self-test. One targeted to written expression is DEFENDS: (1) Decide on goals and theme, (2) Estimate main ideas and details, (3) Figure the best order of main ideas and details, (4) Express the theme in the

first sentence(s), (5) Note each main idea and supporting points, (6) Drive home the message in the last sentence, and (7) Search for error and correct.

In a Meta-Analysis conducted by Swanson (1999), which was an attempt to synthesize and summarize research on interventions conducted between 1963 and 1997. Fifty-eight intervention studies were analyzed according to the age and intelligence of the adolescent, the characteristics of the intervention, and the methods used by the original investigators. “It was clear from earlier research that not all interventions work equally well in this population of students, and two instructional methods seemed superior to others: direct instruction and strategy instruction” (Swanson, 1999). Direct Instruction was categorized as those employing the following techniques: (1) Breaking down a task into small steps, (2) Administering probes, (3) Supplying repeated feedback, (4) Providing students with diagrammatic or pictorial representations, (5) Allowing independent practice and individually paced instruction, (6) Breaking instruction down into simpler phrases, (7) Instructing in a small group, (8) Teacher modeling of skills, (9) Providing set material at a rapid pace, (10) Providing instruction for individual children, (11) Having the teacher ask skill-related questions, and (12) Having the teacher provide new materials. Studies in Swanson’s synthesis that were related to strategy instruction had the following components: (1) Elaborate explanations, (2) Teacher modeling of processes, (3) Reminders to use certain strategies, (4) Step-by-step prompts, (5) Teacher-student dialogue, (6) Teacher asks process-oriented questions, (7) Teacher provides only necessary assistance.

Over the last three decades, a number of studies have focused on adult outcomes of persons with learning disabilities (e.g. Fafard, Haubrick, 1981; Fink, 1998; Gerber,

Ginsberg, & Reff, 1992; Gottesman, 1978, 1979; Hellendoorn & Ruijsenaars, 1998; Major-Kingsley, 1982; Rogan & Hartman, 1976, 1990). The report from these studies focus on descriptive data on educational attainment, academic achievement, cognitive development, psychological health, social relationships, marital status, independent living, and employment status.

Drawing from her seminal study Kauai's longitudinal study on resilience in at-risk children (Werner, Bramar & French, 1971; Werner & Smith, 1977, 1989, 1992), Werner (1993) identified a number of "protective factors" that promoted successful adult adaptation relative to persons with learning disabilities. Similarly, Raskin et. al., (1999), in her longitudinal study of children identified learning disabled, isolated a number of attributes predictive of "success." These predictive factors were: self-awareness, proactivity, perseverance, appropriate goal setting, effective use of social support systems, and emotional stability/emotional coping systems. Reiff et al., (1997) also identified supportive adults who fostered trust and acted as gate keepers for the future and the importance of goal orientation. Werner (1993) emphasized the need to establish realistic educational and vocational plans in achieving positive life outcomes.

Research directed at the learning to read process has also impacted students with learning disabilities. Two models that have helped secondary students with disabilities are discussed. Peterson, Caverly, Nicholson, O'Neal, & Cusenbary, (2000) helped define the problem when they completed a review literature and found four factors necessary for students to become proficient readers. The first was the motivation to read. The second was the ability to decode print, followed by the third, which was the ability to comprehend language. The fourth factor was the ability to transact with the text (i.e. to

actively seek information and make personal responses (p.14). Two models were developed to improve the reading skills of secondary students with learning disabilities. They were Collaborative Strategic Reading (CSR) and Strategic Instruction Model (SIM).

The first CSR, was based on research surrounding at-risk children, (Klingner & Vaughn, 1998) an adaptation of reciprocal reading, (Palinscart & Brown, 1984), and incorporates cooperative learning. (Johnson & Johnson, 1989). CSR utilizes four stages: (1) Preview (students brainstorm about the topic and predict what will be learned; occurs before reading, (2) Click & Clunk (students identify parts of the passage that are hard to understand, then using four “fix-up” strategies), (3) Get the Gist (students identify the most important information in a passage), and (4) Wrap Up (students ask and answer questions that demonstrate understanding; review what was learned) (Klingner & Vaughn, 1998). Students are also taught to use the following cooperative group roles: (1) Leader (determines next steps for the group), (2) Clunk Expert (reminds group of steps), (3) Gist Expert (guides the group through getting the gist), (4) Announcer (asks group members to carry out activities), and (5) Encourager (gives encouragement to group members) (Klingner & Vaughn, 1998). Studies of CSR effectiveness found gains in reading comprehension for students with disabilities, as well as others such as English Language Learners (ELL) (Bryant, Vaughn, Linan-Thompson, Ugel, & Hougen, 2000).

The second reading model was The Strategic Instruction Model (SIM). SIM consists of a package of components for use by students with learning disabilities (Deshler & Schumaker, 1988), as well as instructional tools for use by teachers (Schumaker, Deshler, & McKnight, 1991). The learning strategies portion of SIM helps

students with disabilities to more effectively manage the demands of their general education courses (Deshler, Schumaker, Lenz, et al., 2001). Strategies specifically related to reading are (1) Paraphrasing (students express main idea in their own words, (2) Self-questioning (students develop questions concerning reading passages and read to find answers, (3) Visual Imagery (students visualize scenes in detail), and (4) Word Identification (students decode unfamiliar words by using context clues and word analysis). According to Deshler, Schumaker, Lenz, et al., (2001), “when students are taught these strategies in a systematic, intensive fashion, they demonstrate gains that enable them to perform at or near grade level in each literary level (p. 100).

Forms of instruction that have proven most effective have combined components of direction instruction (teacher-directed lecture, discussion, and learning from books) with components of strategy instruction (teaching way to learn such as memorization techniques and study skills). The main instructional components of this combined mode include: (1) drill-repetition-practice (e.g. daily testing, repeated practice, sequenced review), (2) segmentation (e.g. breaking down skills into parts and then synthesizing the parts into a whole), (3) directed questioning and responses (e.g. teachers ask process or content questions of students), (4) control of task difficulty, (5) use of technology (e.g. computers, presentation media), (6) teacher-modeled problem solving, (7) small group instruction, and (8) strategy cues (e.g. reminders to use strategies, thin-aloud models).

Silverman (2000) listed fourteen strategies that are targeted for twice exceptional students use to help them to be successful. She suggests that first and foremost learning disabilities must be detected as early as possible. (remedial efforts should be in place before the child is nine), that gifted children with learning disabilities need individualized

education plans (IEPs) that take into account both exceptionalities, and that because processing speed is usually compromised in disabled learners, timed tests should be avoided. More emphasis should be placed on the strength rather than on the weaknesses and children with writing disabilities should be taught keyboarding skills and be allowed to use the computer for all written assignments.

Compensation strategies should be actively taught to twice exceptional learners, recognizing that many gifted learning disabled children think in pictures instead of words. Non-sequentiality is another common ingredient in the profiles of gifted children with learning disabilities. Accepting their correct answers even if they can't show their work is important. Visualization techniques should be used liberally, also the use of assistive technology should be considered regularly, especially when writing assignments often need to be shortened. Oral exams may be substituted for some written exams; however, if written, disabled learner's grades should not be lowered due to mechanical difficulties. School work should be graded on the quality of the content. If they learn complex work easily, yet struggle with simple material, twice exceptional students will need advanced concepts, even though they have not mastered the easier work. Acceleration is often more effective than remediation of weaknesses (p. 541-542). These strategies used as interventions for the child's learning disability will allow them to focus on the areas of their giftedness.

Currently, even with the vast amount of research on interventions and strategies there continues to be conflict in the field about identification procedures that are identifying a disproportionate amount of minority students with LD. Along with the disproportionate identification of minorities has also been the inability or unwillingness

of the system to identify students that are gifted as learning disabled. It has been difficult to convince educators that children who are gifted could also evidence learning disabilities. This ideology has constrained the identification of gifted students with disabilities. “The stereotype that had prevailed since Terman’s (1925) time was that gifted children score uniformly high on intelligence tests and perform well in school” (Brody & Mills, 1997). The original purpose of P.L. 94-142 was to insure that students with disabilities would receive the appropriate services that would include appropriate diagnosis and accommodations; however, the latest amendment to the IDEA (2004) legislation has finally acknowledged that students can receive services if they are not achieving commensurate with their ability. High ability was not the target of the original legislation. The legislation was to ensure the best education for students with disabilities. The field of special education and the field of gifted education have remained separate; therefore the expertise of each field has remained within their areas. “In the 1970s there had been increased professional awareness of gifted students with disabilities as an underserved subpopulation (Whitmore, 1986; Gallagher, 1988). Despite a surge of professional interest in gifted students with disabilities, leading American advocates noted a broad abandonment of the actual special education needs of these students throughout 1980s and continuing on into the 1990s (Whitmore, 1989).

One could argue that limited resources were at the crux of this neglect. “The problem lies in allocating limited resources for special program development to the very small number of students who are both gifted and disabled, while psychologically, people who work with one group of students may not be able to respond appropriately to the other group” (Heller, 2000, p. 660). These two fields continue to be separate, even as

researchers in the field of gifted education strive to understand and identify these very bright children who often compensate for themselves in silence.

Identification of gifted students with learning disabilities

Identification issues are complex with twice exceptional students. Unlike other groups of gifted students with special needs, who can be identified by some type of discrete loss such as visual impairment, children with learning disabilities do not constitute an easily identifiable group (Brody & Mills, 1997). Many of these students excel in more than one area and appear to be gifted, but they demonstrate disparate difficulties in other academic areas. Maker (1977) lists the following practices that are conducive to identification of gifts and talents in students with disabilities: (1) Be familiar with the characteristics of giftedness and talent, and how they can be manifested by students with handicapping conditions. Create situations where students with handicaps have the opportunity to display gifted and talented behavior. (2) Ideally, an examiner who is similarly disabled should be involved in the testing process (Stefanich & Schnur, 1979). (3) The norm group for a student with disabilities should include a subgroup of peers with similar disabilities who have experienced a similar degree of developmental delay in language development and intellectual functioning through lack of access to information, opportunity, and resources. (4) Standardized tests of intelligence and achievement developed specifically for subpopulations of students with handicaps. Where such instruments are not available, checklists and tests should be examined and assessed for appropriateness of use, bearing in mind the unique characteristics of the particular subgroup. (5) Tests should be modified only if the examiner is thoroughly familiar with the limitations imposed by specific types of

disability and the special concessions appropriate for that type of disability (Pendavaris & Grossi, 1980). (6) Multiple sources of information, including standardized tests (achievement, ability, and aptitude), teacher and parent referral, and student observation, maximize the likelihood of identification and facilitate a balanced, holistic view of the child's abilities (Lupart, 1990; Grimm, 1998). (7) Special educators should have course work in gifted education, gifted educators should have course work addressing disability issues, and classroom teachers need familiarity with both fields to recognize the needs of gifted students with disabilities in exclusionary settings (Karnes & Johnson, 1991; Johnson, Karnes & Carr, 1997).

Trying to identify students that have high ability with concomitant learning disabilities continues to puzzle educators. Their issues are more subtle and hidden. Reis (2000) conducted a study to determine how high-ability students with learning disabilities succeed in college. She found that "multiple compensation strategies were employed by all of the participants in this study in order to succeed in challenging university settings. The compensatory strategies found were: note taking, test-taking preparation, time management, monitoring daily, weekly and monthly organizers to maximize use of time, chunking assignments into workable parts, literacy skills, written expression, reading, mathematical process, memory strategies such as mnemonics and rehearsal using flash cards, chunking information into small units for mastery, word processing; use of computer and books on tape. . . all participants attributed their success in their scholastic environment to there ability to employ varied strategies" (Reis, 2000, p. 129).

It is extremely important that all persons involved in the child's education be trained in how to recognize key characteristics of giftedness in students with disabilities

(Johnson, Karnes & Carr, 1997). Many of these children are not identified and struggle in school environments that do not recognize the tremendous battle they are engaged in to just appear average. Finding these students would allow them to be assisted in the areas of their weakness, yet their areas of giftedness could be emphasized. Giving them the freedom and gift of thriving in their areas of strengths usually energizes the student to stay engaged in overcoming their weakness.

Conclusion

The historical perspective of each of the unique categories studied have shown a linear progression from a single unitary measure of IQ impacting upon issues of giftedness to multiple factors influencing giftedness, as well as a more domain-specific theory of giftedness. These have also impacted the conceptions of twice exceptional children and two subcategories of learning disabilities and attention deficit hyperactive disorder. Social and emotional issues that both confound and support gifted and disabled students in their educational journey suggests the need for strong support at home and at school. Talent development research also suggests the importance of internal characteristics that may aid these learners.

Giftedness, learning disabilities, attention deficit hyperactive disorder, and talent development have all progressed within a broader conception of intelligence that has created the environment in which individual differences can be addressed. This has opened the door for more inclusive identification and has produced a climate more willing to embrace differences with openness to discover new ways of addressing a group of students with disabilities as well as high ability. Following Table 1 lists the strands of findings that influenced the understanding of this study design.

Table 1: Strands of Findings from the Literature Review

Literature	Main Findings
Conceptions of Giftedness	<p>Early definitions of giftedness were based upon the threshold of a single IQ measure (Galton, 1883; Terman, 1921; Binet & Simon, 1916; Spearman, 1927; Jensen, 1998; Carroll, 1993).</p> <p>New theories favor multi-dimensional models of high ability (Gagne, 1985, 1993, 2000; Gardner, 1989; Heller & Hany, 1986; Heller, 1989, 1990, 1991, Sternberg, 1996; Ziegler & Heller, 2000).</p> <p>Domain specific theory of gifted (Benbow & Stanley, 1996).</p> <p>National Excellence Report (1993). New definitions add awareness of under-represented populations.</p>
Talent Development	<p>Gifted becomes a highly charged term. Talent development is used due to neutrality of term. Gagne thinks both are appropriate. Natural abilities = gifted; Systematically developed ones = talents</p> <p>Broader view of IQ from singular measure has produced a continuum of differences. Society's views of human talents have broadened considerably in the last three decades (Treffinger & Sortore, 1992).</p> <p>Three land mark studies. Benjamin Bloom's (1985) on developing talent in young people; Mihalyi Csikszentmihalyi's (1993) role of the talented teenager, and Andrew Ericcson's work</p>

Literature	Main Findings
<p>Twice Exceptional</p>	<p>in the role of practice (1993).</p> <p>VanTassel-Baska (2001) uses four overarching concepts regarding talent development which are congruent with Gagne’s model. (1) Aptitude and predisposition for specific fields based on interests, personality, and values. (2) Effort and practice over time to build skills and particular predispositions. (3) Models and mentors as catalysts for shaping the mind and hearts in a particular field. (4) Quality instruction and master teachers for skills development, encouragement, and individual attention.</p> <p>Three types of twice exceptionality defined: (1) Identified as gifted, but continue to have difficulty in school,(2)Those that have been identified as having a learning disability but whose exceptional abilities have never been recognized, (3) Those students whose abilities and disabilities mask each other.</p> <p>(Whitmore, 1980; Silverman, 2003; Waldren, Spire, & Rosenblum, 1987; Brody & Mills, 1997; Baum, 1985, 2004; Starnes, Ginevan, Stokes, & Barton, 1988)).</p> <p>Yewchuk (1985) Found that the biggest deficit these twice exceptional students face is the likelihood that nothing will be done educationally to enhance both their strengths and their weaknesses.</p>

Literature	Main Findings
	<p>A significant discrepancy exists between the measured academic potential of twice exceptional students and their actual performance in the classroom (Whitmore & Maker, 1985).</p> <p>Twice exceptional students are: perfectionistic, supersensitive, socially isolated, have unrealistic self-expectations, are low in self-esteem, hyperactive, distractible, have psychomotor inefficiency, chronically inattentive, frustrated by demands of the class room, fail to complete assignments, rebel against drill and excessive repetition, are disparaging of the work they are required to do and tend to become “an expert” in one area and dominate discussions with their expertise (Rosner & Seymour, 1983; Maker, 1977; Pendarvis & Grossi, 1980; Schiff, Kaufman & Kaufman, 1981; Tannenbaum & Baldwin, 1983; Wolf & Gygi, 1981; Daniels, 1983; Whitmore, 1980).</p> <p>Three protective factors are found among students who are gifted with learning disabilities include:. (1) personality factors (self-esteem coping strategies, (2) family cohesion and lack of disharmony, and (3) external support systems (Blacher, 2000).</p> <p>Reis (2000) studies how twice exceptional succeed in college. Identified compensatory strategies used by successful twice exceptional college students.</p>

Literature	Main Findings
AD/HD	<p>Gifted students with disabilities struggle with many of the same problems as their gifted peers without disabilities; however, the social and emotional issues are multiplied against the backdrop of trying to overcome learning challenges. They struggle with anger, fear of failure, a strong need to control, low self-esteem, and sometimes fear of success (Strop & Goldman, 2001; Abrams, 1986).</p> <p>Deficits in executive functions decrease the ability of gifted children with AD/HD to show what they know, to learn efficiently, and to deal effectively with frustration and challenge (Lovecky, 2004).</p> <p>A study by Moon (2001) underscores the risks involved when gifted children are identified late. They are at risk of developing learned helplessness and chronic underachievement.</p> <p>Children with AD/HD are developmentally delayed two to three years in social and emotional maturity (Barkley, 1998). Gifted children with AD/HD follow this same trajectory (Kaufman & Castellanos, 2000; Moon, 2001; Zentall, Moon, Hall, & Grskovic, 2001).</p> <p>Vulnerability to isolation and loneliness has been found in this population, which are many times precursors to depression and</p>

Literature	Main Findings
	<p>anxiety reactions (Kaiser & Berndt, 1986; Jackson, 1998; Kline & Short, 1992; Neihart, 2002).</p> <p>Barkley's (1997) model of AD/HD. Inhibitions serve as a central manager. AD/HD is a disorder of the inhibitory center.</p> <p>Still, (1902) gave firm modern descriptions of AD/HD "Morbidity defect of control over their own behavior.</p> <p>Duesenberg, (2003) describes AD/HD as functional impairments of core symptoms of inattention, hyperactivity, and impulsivity. Environment plays a role. Has been called minimal brain damage and minimal brain dysfunction (Phelan, 2000).</p> <p>DSM III, DSM III-R, DSM IV focused on inattention, hyperactivity, and impulsivity. AD/HD has increased significantly over the past decade.</p> <p>Deficits in executive functions decrease the ability of gifted children with AD/HD to show what they know, to learn efficiently, and to deal effectively with frustration and challenge (Lovecky, 2004).</p> <p>A study by Moon (2001) underscores the risks involved when gifted children are identified late. They are at risk of developing learned helplessness and chronic underachievement.</p> <p>Children with AD/HD are developmentally delayed two to three</p>

Literature	Main Findings
	<p>years in social and emotional maturity (Barkley, 1998). Gifted children with AD/HD follow this same trajectory (Kaufman & Castellanos, 2000; Moon, 2001; Zentall, Moon, Hall, & Grskovic, 2001).</p> <p>The theory of “Over-Excitabilities” in gifted children have characterized gifted ADHD population. (Piechowski & Colangelo, 1984; Olenchak, 1994; Piechowski, 1991; Silverman, 1993)</p>
Learning Disabilities	<p>Specific instructional interventions; neurological network into theory of development. Theorists researching at this time were Cruickshank, Bertzen, Goldstein, Kephart, Lehtinen, Ratzeburg, Strauss, Tanhauser. Medical model was prevalent (Carlson, 2005). .</p> <p>Roger Kirk (1963) first used the term “learning disabled” to describe children who demonstrated developmental disorder in receptive language, speech, reading, and communications skills. (Baum, 2004). Closure, sound symbol associations, and memory.</p> <p>U. S. gets involved with federal definition Public Law 94-142. Continues to stand through IDEA 2004 legislation.</p> <p>Columbia university- information processing. University of Illinois at Chicago – social competence and attributions about</p>

Literature	Main Findings
	<p>success and failure. University of Kansas – intervention for adolescents. University of Minnesota – decision making process related to identification and on curriculum-based assessment. University of Virginia – learning disabilities with attention problems and providing strategies for direct use on academic tasks (Hallahan, 2001)</p> <p>Research has validated the use of intensive instruction that involves helping LD students maintain a high degree of attention and response during instructional session that are scheduled as frequently and consistently as possible. Intensity is achieved by progressive pacing, frequent question-answer interactions, and frequent activities that require a physical response (e.g. pointing, writing, raising hands, repeating” (Deshler, 2005). Intensity can also be achieved through reflective or open-ended questions, if the activities are focused on a process that engages interest and maintains the student’s attention (Deshler, 2005).</p> <p>Swanson & Deshler (2003) detailed several interventions that have been found to be effective for LD adolescents (e. g. questioning, sequencing and segmentation, explicit skill modeling and practice, scaffolding.</p> <p>Much of current instruction with LD adolescents (both in general education and special education class settings) does not adhere to</p>

Literature	Main Findings
	<p>validated instructional practices (Shumaker, et al., 2002)</p>
	<p>Direct Instruction was categorized as teaching employing the following techniques: (1) Breaking down a task into small steps, (2) Administering probes, (3) Supplying repeated feedback, (4) Providing students with diagrammatic or pictorial representations, (5) Allowing independent practice and individually paced instruction, (6) Breaking instruction down into simpler phrases, (7) Instructing in a small group, (8) Teacher modeling of skills, (9) Providing set material at a rapid pace, (10) Providing instruction for individual children, (11) Having the teacher ask skill-related questions, and (12) Having the teacher provide new materials (Swanson, 1999).</p>
	<p>Studies in the same synthesis related to effective strategy instruction had the following components: (1) Elaborate explanations, (2) Teacher modeling of processes, (3) Reminders to use certain strategies, (4) Step-by-step prompts, (5) Teacher-student dialogue, (6) Teacher asks process-oriented questions, (7) Teacher provides only necessary assistance.</p>
	<p>Peterson, Caverly, Nicholson, O’Neal, & Cusenbary, (2000) Found four factors necessary for LD students to become proficient readers: motivation to read, ability to decode print, the ability to comprehend language, and the ability to transact with</p>

Literature	Main Findings
	<p>the text (i.e. to actively seek information and make personal responses, p.14.</p> <p>Two models were developed to improve the reading skills of secondary students with learning disabilities. They were Collaborative Strategic Reading (CSR) and Strategic Instruction Model (SIM). (Klingner & Vaughn, 1998; Palinscart & Brown, 1984; Johnson & Johnson, 1989; Deshler, Shumaker, & Lenz, 2001).</p>

Chapter Three: Methodology

Introduction to the Methodology

This chapter explains the methods used in carrying out this study, giving special emphasis to the analysis of data. It should be noted that qualitative research is emergent and although problem statements are crafted, much of the information collected by the instrumentation directed the nature of the analysis regarding coding, categories, themes, and broad issues.

Qualitative Case Study Method

Merriam (1988) defined the qualitative case study method as “an intensive, holistic description and analysis of a single instance, phenomenon, or social unit (p.21).” Qualitative research focuses on experience and description. “Qualitative research tries to establish an empathetic understanding for the reader, through description, sometimes thick description, conveying to the reader what experience itself would convey (Stake, 1995, p. 39).” Stake speaks of three major differences in qualitative and quantitative emphasis that deserve attention: (1) the distinction between explanation and understanding as the purpose of inquiry; (2) the distinction between a personal and impersonal role for the researcher, and (3) a distinction between knowledge discovered and knowledge constructed (p. 37). Quantitative researchers press for control and error free testing environments that reduce bias and confounding variables, while qualitative researchers search for unique happenings and welcome all information that adds to the understanding of the complex interrelationships among all that exists.

In addition to its orientation away from a cause and effect explanation and toward personal interpretation, qualitative inquiry is distinguished by its emphasis on holistic

treatment of phenomena (Schwandt, 1994). Looking for patterns in qualitative study allows for greater interpretation of issues. The process is not objective; it is highly subjective. This is why methods to improve veracity are critical. Member checking and methods of triangulation work to curtail the shortcomings and weakness that can emerge with such subjectivity. All perspectives available help the researcher to see points of view beyond the single lens he/she works with. Merriam, (1998) states that the “key philosophical assumption, upon which all types of qualitative research are based in the view that reality is constructed by individuals interacting with their social worlds. Qualitative researchers are interested in understanding the meaning people have constructed, that is, how they make sense of their world and the experiences they have in the world (p. 6).”

Many case studies seek to build on grounded theory or focus on one particular intensive case. However, it is common for educators to use qualitative research as a tool to discover and understand a phenomenon, a process, or perspectives and worldviews of the people involved (Merriam, 1998). Most qualitative study in education draws from concepts, models, and theories in educational psychology, developmental psychology, cognitive psychology, and sociology. The researcher becomes the primary instrument for gathering and analyzing data. Merriam (1998) encourages the researcher to develop a high tolerance for ambiguity. Sensitivity or being highly intuitive is a second trait to cultivate. Third the researcher must be a good communicator. Patton (1990) writes that “the purpose of interviewing is to find out what is in and on someone else’s mind (p.278).

Rationale for the Use of Qualitative Case Study Method in this Study

This study of twice exceptional students and the inhibitors and facilitators both internal and external that emerge across the talent development process is a descriptive multiple case study with phenomenological characteristics. The participants were encouraged to articulate their journey across the schooling process, how they were successful, and what they felt were the major intrapersonal and environmental factors that either hindered them or propelled them forward. The role of personality was teased out to determine if non intellectual factors are more important than the field has realized to date. The exploratory nature of this study called for a qualitative design and in this particular study a multiple case study design. Case study is (a) particularistic in that it focuses on a specific instance, phenomenon, social unit, event, or program; (b) descriptive in that it offers thick description using prose and literary techniques to describe and analyze situations within the context; (c) heuristic in that it can provide the reader with the discovery of new meaning and extension and/or confirmation of what is already known; and (d) inductive in that understandings emerge from the examination of data (Merriam, 1998, p. 21).

Stake (1995), considers the “case” the object of study while Merriam (1998) considers the “case study” a methodology. Creswell defines a case study as an “exploration of a ‘bounded system’ or a case (or multiple case) over time through detailed, in-depth data collection involving multiple sources of information rich in context” (Creswell, 1998, p. 61). Case study is best accompanied with multiple sources of information, including but not limited to observations, interviews, audio-visual material, documents and reports. Creswell also mentions the context of the case which

involves” situating the case within its setting, which may be a physical setting or the social, historical, and/or economic setting for the case (p. 61).” The current study was positioned in the category of a collective case study (Stake, 1995). The focus of this study was focused on the phenomenon of internal and external factors that inhibit or facilitate the success of twice exceptional students across the talent development process from kindergarten through the first two years of college, with the cases used instrumentally to illustrate the issues.

Researcher Statement of Bias

One of the necessities and drawbacks of qualitative research is the bias the researcher brings to the study. Since the researcher was the predominant research instrument in the study, the lens through which the whole study was viewed becomes the researcher’s perspective. The researcher was the primary data-gathering instrument (Borg & Gall, 1989). Patton (2002) refers to this unique process as voice reflexivity.

This reflexivity required self-knowledge in the research process and allowed the researcher to reveal the lens from which the study was conducted. This requires a heightened sense of self-awareness, the ability to be honest, and the researcher’s confidence in the findings. The following statement of bias includes areas of personal and professional growth that would impact the study from the researcher’s way of viewing the topic of study.

Personal and Professional Experience

The evolving nature of education has been a theme in my life. I began the application of my education fresh out of college in a small private school in the south. This had its benefits as well as its drawbacks. Very few resources were available to bear

on my educational growth; however, I had an intense desire to meet the needs of my students and the willingness to find resources outside of the context benefited my educational growth. Finding a niche for personal strengths, I continued my career in education at the elementary level. Learning to conceptualize the educational process across grade levels as well as the uniqueness represented in students, created empathy for students and required leadership with colleagues that moved me into a supervisory role. This was followed by an intense desire to continue my education. Ten years into the teaching learning process, I received a Master's of Education with an emphasis in reading. Reading instruction was a personal strength in my repertoire of skills. The vocabulary and research gleaned from professional studies was both challenging and professionally broadening.

My professional career in the regular/typical classroom came to an abrupt end when I was asked to set up an educational program within a local residential adolescent drug and alcohol abuse program. The following ten years of my professional career was spent negotiating learning, behavioral, and psychological components of learners. When looking over the terrain I have traversed, this was one of the most rewarding experiences in which I had been engaged. Still questions remained regarding my personal understanding of learners, their personal context, their abilities, and their disabilities. The nature of the education center where I worked allowed each client in the program to progress at their individual level with interventions made based on their personal needs.

My professional career was interrupted by natural occurrences; marriage and children were part of the next ten years. Two children, both males, have challenged me well beyond the context any classroom or educational center has challenged me. Two

gifted boys. One highly gifted in the verbal domain with the typical asynchronicity that accompanies high ability. The oldest was always out of step with his peers and enjoyed the interaction with children older than his natural age peers. His progression has proceeded along the continuum that one would expect as revealed in research proffered in most gifted education books. There have been periods of high social problems and periods of underachievement directly related to the asynchronicity associated with his inability to cope with concepts beyond his social and emotional maturity.

Becoming an advocate for gifted children was a new dimension in my professional career. The lack of understanding and tolerance for highly gifted children in the educational world is a battle each parent of gifted children must face especially for the sake of their own child; however, it was my second child that challenged my role as an advocate the most. He did not fit with my understanding of giftedness, nor was I aware of the extent that high ability can be masked by intruding disabilities. The disability was not evident at first. His giftedness with concepts and new ideas was evident from infancy until school age. When the classroom requirements impinged upon his personal abilities, it revealed more accurately his behavior and emotional limitations, so the journey to find the right educational placement for him began. His nature and personality were not predisposed to fit the lock step classroom model and the diagnosis of dysgraphia lent very little understanding of his inability to put on paper what the school and his parents knew was inherent in his ability. Life as an advocate took on new dimensions. There were no explanations for his behavior problems. Explosions were daily and underachievement soared. A public school placement in second grade proved to be even less successful than the private setting he had been eking through since

kindergarten. The child study was personally an extremely frustrating experience. The ten or so professionals around the table had diverse opinions regarding his behavior and agreement on how to best serve him was difficult if not impossible to negotiate. Eligibility was denied three times because he was not sufficiently behind level to warrant resources from the school system. The school put in place a 504 Assistance Plan, but little was done to meet his behavioral and educational needs. After two years of this holding pattern, numerous evaluations, multiple trials of medication and intense research, our son hit a wall. The social and emotional issues that he was facing overwhelmed him to the point of “intellectual suicide.” This was the last interpretation given by a psychologist after giving him a full battery of tests. At this point the many of the intrapersonal and environmental catalysts that had pushed him forward were insufficient to propel him to success and became inhibitors for future progress. His earlier gifted scores had plummeted to a flat Full Scale Intelligence Quotient on a Wechsler Intelligence Test - Revised score of 92. What had happened in two years that robbed the advancement and ability that had been part of my child’s person and personality? Can a child be gifted (IQ 125-130) and then become a very low average child? These were questions that haunted me early on. How has this impacted my viewpoint regarding the life of gifted children, particularly those who try to navigate the educational terrain with concomitant disabilities that are difficult to diagnose and obscure the giftedness that lurks behind them? It would be an understatement to say that a point of empathy exists in my personal conceptual framework regarding twice exceptional students. I am convinced that these children exist, that they exist more frequently than we know, and that the social

and emotional issues they face are critical to the direction their lives takes, particularly due to their giftedness and the difficulty of impacting learning disabilities.

I am convinced that from the voices of those who have traversed this terrain successfully there will emerge a deeper understanding of how to identify these children, how to intervene for them, and above all how to shine light on the brilliance that is masked beneath the difficulty of disabilities.

It is stated and embraced by those in the qualitative tradition (Patton, 2002; Stake, 1995; Rubin & Rubin, 2003; Merriam, 1998) that case study is a design chosen because researchers are interested in insight, discovery, participation, and personal voice. Merriam (1998) best describes the intent of the researcher when she states that “concentrating on a single phenomenon or entity (the cases), the researcher aims to uncover the interaction of significant factors characteristic of the phenomenon (p. 29).”

I am currently finishing course work towards a Ph. D. in Educational Leadership with a concentration in gifted education at The College of William and Mary under the mentorship of Dr. Joyce VanTassel-Baska, a well-known researcher in gifted education. Interaction with colleagues in the field of gifted education, coursework that required breadth and depth in the field of concentration, and the mentorship of a professor so solidly steeped in gifted education has illuminated my understanding of the education of students with high potential yet at the same time has allowed me to focus attention on the conundrum of twice exceptionality and the in-depth pursuit of understanding how disabilities impacted these uniquely gifted students.

The research context

The study took place at a selective institution of higher learning. The Office of Disabilities collaborated with the researcher by providing a cover letter for the researcher- developed questionnaire and distributed the questionnaire to participants that met the study requirements.

Pilot

The questionnaire and the interview protocol were piloted to make them more concise and usable for the research project. Two students, who were in their junior or senior year of college and were identified gifted and learning disabled were given the questionnaire and were asked to fill them out and give feed back about any difficulty or ambiguity they might have experienced filling it out. Following the pilot, the questionnaire was altered to enhance its clarity. The categories of types of giftedness were made clearer by eliminating those categories that were redundant, such as different forms of ability grouping. A few gifted program services were entered as suggested by the two students. The interview protocol had a few questions altered slightly in the wording in order to make them clearer, and prompts were added to each question to ensure that reluctant students would have a better chance of answering the questions more fully. The interview protocol may be viewed in Appendix C).

Sample

Criterion sampling, a strategy of purposeful sampling was used to identify participants. Creswell (1998) states, “a phenomenological study usually involves identifying and locating participants who have experiences or are experiencing the phenomenon that is being explored (p. 92).” This strategy allowed for the selection of

cases that met predetermined criteria necessary to investigate the research questions (Patton, 1990).

The criteria set for this study were students who (1) met the selection criterion for acceptance to the selective institution of higher learning (2) self-identified and had a documented learning disability including AD/HD and (3) met the protocol laid out by The Office of Disabilities at the selective institution of higher learning, (4) were articulate regarding their educational journey, (5) had parents who were willing to triangulate the data, (6) and were a unique or extreme case as compared to the others who were interviewed.. The participants also had a cumulative grade point average of 2.0 after completing four semesters of studies at the selective institution of higher learning, which was set by the institution in order for them to continue in academic studies. Each student selected had also met the criterion of scoring above 1200 on the Scholastic Aptitude Test and had a 3.0 or above when entering the college from high school. Each participant had documentation acceptable for The Office of Disabilities that allows for accommodations to be given due to their learning disability. Appendix E contains a copy of the school policy for receiving accommodations.

The Office of Disabilities sent 37 students who met the above criterion a cover letter from their office with the researcher-designed questionnaire included. Fifteen students responded to the questionnaire while 13 agreed to be interviewed. The researcher used extreme case sampling in order to choose those cases that were unique and demonstrated the issues of twice exceptional students at a selective institution of higher learning. The cases were selected for the following reasons: (1) uniqueness of the student story and journey, (2) the in-depth articulation of the student on the open-ended

responses of the questionnaire, (3) evidence of both positive and negative experiences, and (4) access to parents for triangulation.

Research Statement

The overarching question that guided this study was: What intrapersonal and environmental factors have both inhibited and facilitated the talent development journey of intellectually talented twice exceptional students who are now juniors and seniors at a selective institution of higher learning?

Related Questions

Questions that were used as the study questions were:

1. What internal factors were important in facilitating twice exceptional students successfully through their educational journey?
2. What external factors were important in facilitating twice exceptional students successfully through their educational journey?
3. What internal factors inhibited twice exceptional students through their educational journey to date?
4. What external factors inhibited twice exceptional students in their educational journey to date?
5. What are the similarities and differences across internal and external factors related to twice exceptional students who have achieved junior or senior status at a selective institution of higher learning?

Instrumentation

Questionnaire

There were two researcher-created instruments that were used in the study. A questionnaire was the first instrument that targeted demographics, family composition, information and profile of siblings, scholastic achievement, factors contributing to success, factors inhibiting their success, the interactions of their giftedness with their disability, and their interest in a follow up interview. A copy of the questionnaire can be found in Appendix C.

Interview

The interview posed eight questions that were designed to be open-ended. This allowed for the depth of experience to emerge focusing on the following issues: description of students journey, obstacles that impeded development, personal and internal resources, strengths and weakness related to success, facilitators of development, key inhibitors, programs and educational provisions, crystallizing experiences, environments or social context conducive or not to learning, and patterns in their journey where strengths and weaknesses were emphasized more than the other. The interview was structured to draw out the themes in the participant's life that allowed them to reflect on their own experiences and the implications (see Appendix D to see a copy of the interview protocol). A monetary incentive was provided to those students completing the questionnaire and returning it to the researcher via The Dean of Student's Office.

An agreed upon location was used as the setting for the interviews. This location was coordinated by the researcher through The Dean of Student's Office, specifically the Office of Disabilities at the selective institution of higher learning. The Assistive

Technology Lab was set up as the location for the interviews; however, a few of the students were uncomfortable with that particular location, so a study room at the library was used as a second location for those students who were not comfortable in the lab. Each of the students read the transcription of their interview and signed the front copy to verify that it was correct and reflected accurately what they were trying to convey. A copy of the interview protocol was also sent to each parent of each interviewee. Parents responded to the same questions that each participant answered. Each parent was contacted to explain the research study and the importance of their perspective, lending veracity to the study and expanding information that the students were not clear about. Parents also validated the student's answers or disagreed on concepts offered by the student. The trustworthiness of the study rested predominantly on the methodology and the quality of the design. Member checking was utilized to ensure accuracy and credibility of findings. This provided a safeguard for the researcher of confirming the accuracy and credibility of the findings. The researcher used two sources of data, the parents and the students. Each source served to corroborate and shed light on themes or theories that emerged. Each interview was recorded and transcribed. Each person interviewed was given the opportunity to verify the transcript of the interview. An opportunity to collect data from the parents provided more documentation of life patterns of the participant across the journey and provided triangulation. This collection of data followed the same data analysis process as the initial interviews.

Data Analysis

All of the interviews were recorded and were transcribed to allow for the emergence of themes through the process of coding. The interview protocol was guided by a predetermined range of topics to be addressed within the context of twice exceptional issues; however, the format remained flexible, encouraging the participants to address new topics or issues that were salient to them.

Procedures for Data Analysis

The following steps were modified from Tesch (1990) into the following inductive process set up by the researcher. All transcripts were read in their entirety. This initial reading allowed for a sharper sense of the whole encounter. The second reading of the transcripts allowed for ideas to be jotted in the margins allowing identification of substantive issues that were related to the research questions. Once this was accomplished, the transcripts were reviewed, and a list of open codes was produced line by line, choosing important word or groups of words from each sentence. Once these codes were delineated, the next step was to use selective coding to break the open codes into categories.

Once these categories were arranged, another review of the topics for each transcript allowed the researcher to abbreviate the topics. The next step was refining the codes by placing them in themes. The researcher assembled the data belonging to each category in one place and performed preliminary analysis which includes, open coding (line by line grouping of important words or clusters of words from each sentence), axial coding (after listing open codes, moving all the codes into similar categories), and

selective coding (determining how the categories represent major themes). The objective in this step was to reduce codes into topics that relate to each other. Once relationships were established, the researcher determined if there were any interrelationships between the categories.

Pattern, theme, and meaning emerged from this process. According to Patton (2002) inductive analysis involves discovering patterns, themes, and categories in one's data. This led the researcher to the next phase of analysis which was more deductive. Patton calls this the confirmatory part of the analysis which may be deductive in testing and affirming the authenticity and appropriateness of the indicative content analysis, including carefully examining of deviate cases or data that do not fit the categories developed (p. 454).

Each case study was organized as a specific case for in-depth study and comparison. Each case represented a unit of analysis. A case narrative was written once all raw data has been collected. The process of inquiry both through the questionnaire and the interview were guided by the problem statement and the five related questions. Table 2 represents the relationship between the questions, the instrumentation and the analysis.

Table 2: Problem Statement & Questions from Interview Protocol:

Problem Statement		
What intrapersonal and environmental catalysts were important in facilitating twice exceptional students successfully through their journey?		
Research Questions Main and Related	Instrumentation	Analysis
What internal factors were important in facilitating twice exceptional students successfully through their journey?	Interview Parental Interview Questionnaire Question: 1, 2, 3, 6, 8	Questionnaire Analysis Descriptive Statistics Qualitative analysis using thematic analysis
What external factors were important in facilitating twice exceptional students successfully through their journey?	Interview Parental Interview Questionnaire 1, 2, 4, 5, 7, 8	
What internal factors inhibited twice exceptional students in their journey to date?	Interview Parental Interview Questionnaire Question: 1, 2, 3, 6, 8	
What external factors inhibited twice exceptional students in their journey to date?	Interview Parental Interview Questionnaire Question: 1, 2, 3, 6, 8	Interview Analysis Qualitative analysis of interview data with emergent themes
What are the similarities across internal and external factors related to twice students who have achieved junior and senior status at a selective institution of higher learning?	Interview Parental Interview Questionnaire Questions: 1,2,3,4,5,6,7,8	Open coding Selective coding Axial coding

The study proceeded from open codes to categories to themes (thematic analysis) to testing the themes (extent of relevance to received data; Do the data support the

themes. The researcher attempted to explicate the procedures of the study so as to make the study show transferability (Lincoln & Guba, 1985).

Each case study was organized as a specific case for in-depth study and comparison. Each case represented a unit of analysis. A case narrative was written once all raw data has been collected. Harry, Surges & Klingner (2005) have developed a concept map of the data analysis process that confirms the researcher’s approach employed.

The process that follows is a constant comparison approach, in which “a given data point would be compared with another to see if the same code would apply, thus developing consistency in usage of the codes” (Harry et al, 2005, p.6).

Table 3: Data Analysis Map (Harry et al, 2005)

Flow of Data Analysis	Process
3. Themes	What are the themes embedded in the conceptual categories?
2. Categories	Conceptual Categories- common features among them.
1. Open Codes	Based on initial interviews - key points made by interviewee.

Qualitative Approaches to Validity and Reliability: Credibility dependability, transferability, and confirmability

In the qualitative tradition, the ability for another person to arrive at similar conclusions based on the raw data augments the credibility of the study. Internal consistency was derived by spending sufficient time with the subjects to find agreement

in story, exploring the participant's experience in sufficient detail, and checking multiple sources of data (Creswell, 1998, p. 98). Each student read their transcripts, looked for inconsistencies in what they said versus what they meant. The student signed the front of the copy of their transcript verifying that it was correct and was consistent with what they remembered saying. Following this each of the cases parents were contacted and asked to respond to the interview questions from their point of view. This allowed for triangulation of the data and strengthening the dependability of the data (Lincoln & Guba, 1985). The credibility of the study is enhanced by multiple data sources that create opportunities for triangulation.

Transferability was reached through the thick description that is part of the qualitative tradition, not only of the student's story but also the explication of the researcher's process. Five cases were selected by the researcher after interviewing 13 students. Extreme cases were used that demonstrated the qualification stated earlier for selection. The cases were selected for their uniqueness and the in-depth articulation of the student on the questioning, evidence of positive and negative experiences, and access to parents for triangulation. The researcher also attempted to enhance the confirmability of the findings by searching out alternatives for the findings (Lincoln & Guba, 1985).

Limitations

Self-report yields information that is individual and not useful for making generalizations. The credibility of the reporting is a potential issue, as well as the researcher's bias while information is being gathered. The retrospective nature of the study creates a validity issue due to discrepancies as people look back over their experiences. Respondents may embellish their facts or under represent the facts due to

the passage of time. Sample size is small in comparison to quantitative research standards and is limited in its ability to be generalized to any other population than those cases which are specifically studied. Trustworthiness is dependent upon the precise use of a qualitative research protocol and honesty in reporting all personal biases.

The ability to use a combination of survey and interview protocols with both students and parents allowed analysis that determined how well the data sources could be validated through cross-checking and triangulation. The researcher cannot know how his/her own personality and bias impacted the participants being interviewed. The single perspective of the interviewer may have limited the perspectives of the interviewee, since researchers ask questions related to their own implicit hypotheses which may limit the scope of what might be the student's actual lived experience. There is also the added human component of what can be known is only that which is shared. It is impossible to report on what is not seen externally or voiced by the interviewee

Delimitations

Information is always compromised by the process of deciding which questions to ask and which ones not to ask (Patton, 2000).

“The very first trade-offs come in framing the research or evaluation question to be studied. The problem here is to determine the extent to which it is desirable to study one or a few questions in great depth or to study many questions but in less depth- the ‘boundary problem’ in naturalistic inquiry” (p. 224-225).

Multiple case studies dilute the depth that can be garnered in one deep study but are still helpful in assisting the researcher to gain insight into the human experience at the depth necessary to understand the nuances of personal experience. Five case studies were pre-

selected for this study, thus limiting the insights to a smaller number of participants than queried on the questionnaire.

The age of the students also delimits the study. There is limited lived experience because of the age of the interviewee. How the talent development process continues across the learning and practice trajectory is limited to the lifetime experience up to this point in the participant's life. The researcher is unable to know the interpersonal and environmental catalysts that are yet to impact on the lives of subjects over adulthood.

The nature of the student's disability delimits the study. The study concentrated on neurological or cognitive deficits; predominantly learning disabilities and ADHD; however, comorbid conditions also existed in several of the study participants.

The study is also delimited by its focus on those students who have managed to make the journey successfully. Their presence in a rigorous institution, the qualifications that must be met for acceptance and the necessity of two years of successful college transition delimit the numbers of students that could be investigated regarding this issue. The study leaves out students who are gifted with disabilities at colleges that are less selective and also those gifted students who never make it to college, due to confounding issues related to their disability.

Another delimitation of the case selections are the criteria by which the students are selected based on high SAT scores, high school GPA, or identification as gifted prior to college that must be obtained to be considered for the study as well as the nature of the selective institution.

Chapter Four: Results

Introduction

The first section of this chapter contains results of the questionnaire data collected from 15 students who returned surveys to the office of Disabilities. The second section of this chapter contains the case data in narrative format from the five case studies selected for the study. The narratives have been infused with data from the parent interviews that provided verification or refutation of student's perceptions on study issues. The parents were asked to respond to the same eight interview questions that the students answered. A copy of parental responses to the interview questions can be found in Appendix K.

*Part I**Introduction to Questionnaire Data*

Fifteen surveys were returned to the Dean of Student's Office out of the 37 mailed. Following the survey narratives are three charts that show the categorical codes that were gleaned from the three open-ended questions at the end of the survey. A chart of the demographic data and the open codes from the three open-ended questions can be found in the reference material in the back of this study (see Appendix F to find open codes). This study began with an exploratory survey. The survey data were collected as a means to select cases or subjects that would demonstrate best the phenomenon of being successful twice exceptional students. In order to determine which subject best represented the phenomenon; each student's responses to both the demographic data and the open-ended questions were analyzed in order to choose from among the 15 surveys the five best case studies for this project.

The Assistant Dean of Students of Disabilities worked with Technology Services to identify students who were in their junior or senior year of college at this selective institution of higher learning. They had to have maintained a GPA of 2.0 at this stage of their studies, and they had to be identified with a disability that compromised them in their cognitive functioning. They also (1) had to be identified as gifted or (2) had to have scored 1200 or higher on their SAT's and needed to have graduated from high school with a GPA of 3.0 or better.

It is unfortunate yet understandable that these students, in their deep desire for normalcy, would avoid further identification than that which had already occurred due to the nature of their disability. With this in mind, the researcher was excited to find that 15 students responded to the survey and 13 of them volunteered for a follow-up interview requested by the researcher. This yielded a return rate of approximately 41 percent with 86.7 percent of those returned actually volunteering for a follow-up in-depth interview.

The researcher interviewed all 13 students who volunteered and selected five students who represented cases that would further develop the understanding about students with high ability and impacting learning disabilities. These students, often called twice exceptional, were selected due to their uniqueness, representativeness in respect to gender and condition, and their distinctive voice in the interview.

The analyses of the 15 survey responses which follow provide the demographics of these students as well as the nature of the obstacles they have faced and how they personally understood the interaction of their ability and disability. Pseudonyms have been selected to protect the confidentiality of each student.

Table 4 presents the basic demographic data from the surveys. The demographic data on the 15 surveys provided no real surprises but supported the research in the field concerning family structure, early intervention, programs and provisions, and the importance of gifted programming. Six males responded to the surveys and 9 females. SAT scores ranged from 1100 to 1575. The average SAT score was 1312 with the average verbal score 668 and average quantitative score 657. High school GPA's ranged from 2.0 to 4.0 and college GPA's ranged from 1.9 to 3.9. The average high school GPA was 3.59 and the average college GPA was 2.98.

Table 4: Basic Demographic Data from Questionnaire (n=15)

Basic Demographic Data				
Gender	Male (n=6)	Female (n=9)		
Graduation Date	2006 (n=5)	2007 (n=9)	2008 (n=1)	
Public School	Elementary (n=11)	Middle School (n=10)	High School (n=7)	
Private School	Elementary (n=6)	Middle School (n=6)	High School (n=8)	
SAT	1100 - 1240 (n=4)	1250 - 1365 (n=5)	1370 - 1450 (n=3)	1450 - 1575 (n=2)
H.S GPA	2.0 - 2.9 (n=3)	3.0 - 3.5 (n=4)	3.6 - 3.9 (n=4)	4.0 (n=4)
College GPA	Below 2.0 (n=1)	2.0 - 2.9 (n=5)	3.0 - 3.5 (n=8)	3.6 - 3.9 (n=1)
Disabilities	ADH/ADD (n=11) Vision Impaired (n=1)	Executive Function Disorder (n=1)	LD (n=6) SLD (n=2) OHI (n=1)	Anxiety Disorder (n=1) ODD (n=1)

Table 5 summarizes family data across the 15 questionnaires. Twelve of the students lived in intact family structures. Research in gifted and talent development confirms this idea that students who have family structures that nurture the talent are much more likely to be successful (Cox et al., 1985; Bloom, 1985; Czikszenmihalyi, 2004). The population was split regarding parents with similar disabilities. Seven parents were diagnosed with learning disabilities. In this study the participants' siblings were less likely to be disabled at a ratio of 5 disabled to 8 non-disabled. Also included in the table are the number of siblings with learning disabilities and the number of siblings identified gifted. Only four siblings were identified as gifted.

Table 5: Summary of Family Data across Questionnaires

Family Data (n=15)				
Family Structure	Both Parent (n=12)	Mother (n=1)	Mother & Step-father (n=1)	Independent (n=1)
Parents w/ LD	No (n=8)	Yes (n=7)		
Siblings	Male (n=9)	Female (n=5)	Half-Bro. (n=7)	Half-Sis. (n=1)
Sibling w/LD	No (n=10)	Yes (n=5)		
Siblings G/T	Yes (n=4)	Female (n=1)	Male (n=3)	No (n=8)

Table 6 summarizes the student's enrollment in gifted programs, areas of high ability, identification, and membership. Ten students had been identified as gifted prior to their college experience, which could indicate also that involvement in gifted programs was a facilitator for success for these students. All but four of the students were impacted by AD/HD and eight had significant learning disabilities LD. Fourteen of the students

cited their gifted domain as intellectual ability. One of the participants was identified gifted at age 4 and the latest at age 15. The average student was identified at age seven. The majority of the students were identified for their intellectual ability while specific academic, artistic, and leadership ability was found across all students with specific manifestations in logical mathematical, linguistic, creativity, artistic, musical, leadership, and inter and intra personal.

Table 6: Gifted Program, Identification and Membership (n=15)

Identified G/T	Yes (10)	No (5)		
Age Identified	Before school age (n=1)	6yr – 8yr (n=6)	12yr – 15yr (n=3)	
Enrolled in G/T	Yes (n=10)	No (n=5)		
Areas of High Ability	Intellectual Ability (n=14) Logical Mathematical (n=3)	Linguistic (n=6) Creativity (n=7) Artistic (n=4)	Specific Academic Ability (n=4) Inter and Intra-personal (n=7)	Leadership (n=3)
Programs	Individualized Instruction (n=3) Advanced Placement = (n=11) Early Admission (n=3) Dual Enrollment (n=1)	Talent Search (n=3) Summer/Sat. Enrichment (n=1) Honors classes (n=10) Internship (N=2)	International Baccalaureate (n=1) Grouping by ability (N=11) Magnet classes (n=3) Special Art Class (n=2)	Cross-age grouping (n=2) Pull-out programs (n=3) Governors schools (n=3) Mentorship (n=1)

Silverman (2002) in her personal research at The Colorado Gifted Development Center, which specializes in assessing children with dual exceptionalities, found that the following disabilities surfaced more frequently with twice exceptional students: Sensory

integration dysfunction, attention difficulty hyperactivity disorder, auditory processing disorder, visual processing deficits, dyslexia and spatial disorientation.

Gagne (2003) lists catalysts that drive a student toward achievement or giftedness in their aptitude domain. The catalysts fall in two broad areas representing intrapersonal and environmental factors, with chance accounting for other factors that do not fall in those two categories. Environmental catalysts are those which are related to surroundings, persons, undertakings and events. Intrapersonal catalyst are those related to motivation which include initiative, needs, interests, perseverance, as well as temperament/personality which include adaptability, attitudes, competitiveness, self-esteem, values, etc. The 15 surveys produced 28 open codes related to factors facilitating success. The researcher used these open codes with the constant comparative approach to reduce the codes to conceptual categories. The researcher discovered six conceptual categories that emerged from the surveys in relation to factors facilitating success. Three categories emerged that were environmental (external) in nature, two categories emerged that were intrapersonal (internal) in nature and the outlier's were placed in the category of chance. The three external factors that facilitated success were people, programs/provisions, and undertakings. Two internal factors that were isolated were motivation/volition and temperament/personality. One open code was luck which was placed in the chance category. Table 7 displays the themes revealed concerning facilitating factors.

The second open-ended question was related to factors that had inhibited success for twice exceptional college students across their academic journey. Thirty open codes were culled from the surveys. From the 30 open codes, four conceptual categories were

identified. Two of the conceptual categories were external (environmental). These categories were persons who inhibited the journey and programs and provisions that inhibited progress. The second two categories were internal (intrapersonal in nature). They were disabilities that inhibited the student and the personality/temperament of the students that inhibited their progress. Table 8 displays the themes revealed concerning inhibiting factors.

The last open-ended question in the survey asked the students to state how they believed the interaction of their high ability and their disability had impacted their educational journey. The themes revealed from this question are displayed in Table 9. Two external conceptual categories emerged and three internal categories. The two external categories were the interaction of people and programs on their abilities and disabilities and the interaction of provisions, especially accommodations in helping the students cope. The three internal categories were the interaction of the students' abilities helping them to compensate for their disabilities, their disabilities often masking their ability, and their personality and temperament which served to boost their confidence or cause them to misunderstand the circumstances that defined their situation.

Conclusion

Fifteen surveys were returned to the Dean of Student's Office. In each survey demographic about the students family, school record, SAT scores, giftedness, learning disability, programs and provisions, areas of giftedness, and three open-ended questions targeting facilitators, inhibitors, and interaction of strengths and weaknesses across the educational journey. Three tables reveal the specific codes and categories that merged from the data. The overarching categories of internal and external factors were used.

Table 7 lists internal and external facilitators, while Table 8 lists internal and external inhibitors of the educational journey. Table 9 shows the intersection of strengths and weaknesses as they related to internal and external factors. Appendix K provides individual narratives on each of these students, using the open-ended responses from the questions.

A key factor that emerged from the data on facilitators was the strong emphasis on the role of the parent in facilitating student success. The second factor that was consistent across the survey was the dependency each student described on their particular accommodation. Extra time on test was the most used accommodation facilitating the student's success on tests or timed assessments.

Key inhibitors were all functions of the student's disabilities. The need for more time on test, the inability of the student to maintain appropriate attention, the student's inability to manage their time efficiently, slow processing speed, slow reading speed and the stress that these inhibitors produced for them.

The interaction of the student's strengths and weaknesses were two sided. From a positive standpoint, the student's high ability helped them cope and overcome their disability, and another student mentioned that their high ability helped them keep up with their peers. One student revealed how difficult it was to be constantly aware of what she knew she could do but her disability made it difficult to prove that to others. Another student stated that the interaction of her disability and high ability, masked her disability. Following are tables 7, 8, and 9 eliciting responses to the three open-ended questions from the questionnaire.

Table 7: Themes Revealing Facilitators of Success (n=15)

External Facilitating Persons	External Facilitating Programs and Provisions	External Facilitating Undertakings	Internal Facilitating Motivation and Volition	Internal Facilitating Temperament and Personality	Chance Facilitating
Family Support (n=10)	Medication (n=3)	Outside Interests (n=4)	Faith (n=3)	Choosing classes wisely (n=2)	Lucky (n=1)
Professor Support (n=6)	Extra time on Tests (n=5)	Stress Relief Through Non-Curricular Activities (n=2)	Enjoyment of the subjects taken (n=3)	Ability to "bull shit" (n=1)	
Teacher Support (n=5)	Study Aids (n=3)		Hard Work (n=8)	Good Study Habits (n=2)	
Emotional Support of Friends (n=3)	Disabilities Services (n=1)		Patience (n=1)	Perseverance to Continue and go to Class (n=1)	
Counselor Support (n=3)	Language Therapy (n=2)			Good Time Management (n=1)	
	Special Education Therapy (n=3)			Ability to Keep Up (n=1)	
	Computers (n= 3)				
	Spell Check (n=3)				

Table 8: Themes Revealing Inhibitors of Success (n=15)

External Inhibiting Persons	External Inhibiting Programs and Provisions	Internal Inhibiting Disabilities	Internal Inhibiting Personality and Temperament
Assistant Dean of Students over Disabilities (n=7)	Lack of Accommodations (n=2)	Slow Processing Speed (n=5)	High Stress (n=1)
Parent's Divorce (n=1)	Lack of Services (n=4)	Attention Deficit Disorder (5)	Anxiety(n=2)
Bad Teachers (n=1)	Need for More Time on Tests (n=5)	Obsessive Compulsive Disorder (n=1)	Time Management Issues (n=6)
Lack of Faculty Support for Disabilities (n=1)	Small LD Population at the College (n=1)	Depression (n=2)	Poor planning and Organization Skills (n=5)
School Bureaucratic Structure (n=1)	Transferring from a School with Provisions (n=2)	Lack of Comprehension (n=2)	Poor Work Ethic (n=1)
Authority Figures (n= 1)	Medications (n=2)		Ability to Coast or Just Get by (n=1)
High ability masking disability (n=3)	Late Diagnosis(n=8) More Competitive Student Body (n=1)		

Table 9: Themes Revealing Interaction of High Ability and Disability (n=15)

External Interaction of People and Programs	External Interaction of Programs and Provisions	Internal Interaction of Abilities	Internal Interactions of Disabilities	Internal Interactions of Personality and Temperament
Professor's Accessibility (n=2)	Extra Time on Tests (n=4)	Ability Made it Easier to Cope with Disability (n=8)	Slow Reading Made Research more Difficult (n=4)	Frustration due to Awareness of Ability When Disability Hindered Success (n=5)
Institutional Misunderstanding of Students with Disabilities (n=8)	Medication (n=1)	Organizational and Time Management Skills Helped (n=1)	Attention Deficit Hyperactive Disorder Made Attending Harder (n=4)	Emotional Issues (n=4)
		Cognitive Skills Helped to Compensate (n=8)	Forgetfulness (n=1)	Lack of Common Sense (n=1)
		AD/HD Increased Creativity (n=1)	Impulsivity (n=2)	Poor People Skills (n=2)
		Natural Writing Ability (n=2)		
		Ability to Hyper-Focus (n=1)		

*Part II**Introduction to case study narratives (Raw Data in narrative form)*

The narratives of the five case studies selected for the research study follow. Each of the narratives has within them the incorporation of parent comments that were relevant to the information each student shared. (See Appendix L for parental responses to interview protocol) Triangulation of data by the parent's responses is used to verify or refute what the student communicated. The parent interviews illuminated also illuminated new data that were left out by the student. Each case is reported according to the following format: context, academic journey, obstacles faced, internal resources/strengths, facilitators/inhibitors of personal development, educational programs and provisions, crystallizing experiences, environments and social contexts, and the impact of strengths and weaknesses.

*Case Study # 1 Alyssa**Context*

Alyssa arrived at the assistive technologies lab late, rushed, and a little nervous. She apologized for being late but explained that her time had run long on an exam she was involved in prior to the interview. The researcher spent time allowing her to wind down by asking her a few questions about how school was going and what she enjoyed doing besides school work. Alyssa was quite affable and opened up to the researcher. She also asked questions about the study that the researcher was engaged in. She expressed interest and admiration that someone was studying the type of students that the research addressed.

Academic Journey

Elementary

Alyssa remembers that during her elementary years things did seem to come more easily for her. She felt like she stood out among her classmates. She was targeted for gifted and talented programs throughout elementary school, as well as middle school. Her mother verifies this. “Her passion both at home and school was her love to draw. She also liked writing in a journal and wrote very creative stories for school. Her teachers always commented about her artistic ability and her creative writing.”

Once Alyssa mentioned middle school, she was compelled to tell her secondary experience rather than give any other information at this time about elementary school.

Her mother explains about her concerns in relation to Alyssa’s likelihood of having a disability. “In second through third grade I was concerned that Alyssa might have a learning disability. She was always a very conscientious student and always took pride in her work. However, she would usually take too much time on completing her assignments both at school and at home.” Her mother reflects on the issue that Alyssa was a perfectionist in her work and this created difficulty in time management with her assignments.

Middle School

Alyssa states “In middle school I started noticing more, how things would take me longer to finish. I would be able to reach the level of achievement I wanted to, but I would be the last one to finish my test, always.” This continued through high school. “I was taking honors classes in high school, but I was always the last one to finish my exams.” Alyssa did well in her classes but knew she was struggling with the time issue,

and it continued to cause problems for her in her academics and concern as well about her self-esteem. Alyssa's mother voiced her concerns to the school about Alyssa, but her concerns were not acknowledged. The school felt that Alyssa was maintaining an A average while taking G/T classes. If the child was successful, then there is no reason to test them. "The concerns I shared with Alyssa's teachers regarding any learning difficulties during all her academic year were never acknowledged. If a child is successful and her performance is high and reflected by successful grades, there is no reason to test them"

Alyssa still has the sense that she did well in elementary school and then things just fell apart. "Even until this day, I look back and I wonder if maybe, this probably doesn't sound good, but it is as if I got stupider over time." It took her by surprise that she was no longer at the top of her class. She wondered if it was her or just the people she was up against.

Alyssa was in public school during her early years in school. Her mother was also a teacher, and her little brother had been diagnosed with a learning disability at a very early age. He had a learning disability in auditory processing and he had tubes placed in his ears at a young age. She refers to this because they struggled so much with his needs that it came as a shock to her when she began to struggle. From her mother's perspective, his difficult journey only served to mask Alyssa's disabilities, given that she seemed to not struggle as much as her brother. In her secondary years, she noticed a distinct difference between her performance in elementary school and her performance in middle school. "In elementary school I was always the star that shined; always on top being awarded. My brother was the one who always struggled. Then all of a sudden

things took me longer and my friends began to joke with me asking how long each project they were assigned was going to take me.” Her projects always took her double to triple the time it took her peers. Alyssa’s friends were aware of some of her difficulties. “My friends definitely did recognize my learning disability in every day life, particularly my, AD/HD. Lots of my friends say that I’m the most AD/HD person they know. They say it in a playful, nice way.” The researcher asked Alyssa what her friends were seeing that let them know this. Alyssa stated, that they said “she had a dreamy way about her or I was not always very focused, kind of all over the place.” However, she states that “at the time they were supportive.”

High School

Things got worse for Alyssa in high school. The school did not test me and would not recommend me for testing. Her perception was, “they did not want to pay for testing.” Her understanding was that because her GPA was fine, the school would not find her eligible for testing and therefore not eligible for any services. Alyssa struggled throughout middle school and high school, but her willingness to do the extra work to get good grades kept the school from detecting and understanding the dilemma she faced daily, monthly, and yearly in the school process. What the school didn’t see and understand was Alyssa’s willingness to do extra work to get good grades. Alyssa states that her ability masked her learning disability.

It was not until after high school that Alyssa’s parents paid a lot of money for her to be tested at a local college. The testing revealed multiple learning disabilities. “One was undefined; another was in reading; dyslexia which caused slow processing in reading and writing. She was also diagnosed with attention deficit hyperactive disorder

(AD/HD). Alyssa felt the testing paid off for her, since she ended up accepted to a reputable four year institution in South Carolina. This required her to go to school out of state. She feels that if she had accommodations on her SAT tests, her scores would have been higher and her options not quite so limited. "I couldn't get accommodations, so my SAT's were extremely low."

Alyssa talked about her internal conflict when she saw others getting help, but she continued to be thwarted by the system and receive no help, not even extra time. "My best friend in high school was LD and, she would get those class periods which were kind of like a study hall. It was in these classes that they would help them out with their homework and other assignments;" however, Alyssa states "that's not even what I wanted. I just needed more time on my tests. That was always the thing that was hindering me. I can get the result I want as long as I have the time to get it on the paper."

College

Alyssa did well at college in South Carolina. The college provided numerous reading programs and "a huge facility for people with learning disabilities." The person in charge of the program was "an awesome woman, very proud of her job and very proud of helping people." Alyssa had computer programs that scanned all her books from all her classes. "This was a huge university and they were doing this for all the kids with learning disability problems. The resources were tremendous." Alyssa transferred to her current selective institution of higher learning after her freshman year. She began to struggle and had to meet with the Assistant Dean of Academics on a weekly basis for academic advising. She needed help with both organization and time management. The dean pointed out to Alyssa that she had learned to compensate and accommodate for

herself and her learning disabilities throughout high school; however, the dean pointed out that “once I got into college, it became more difficult for me to do this, particularly once I transferred here where there were fewer services for students with difficulties.”

Alyssa laments the lack of help at her current institution. “I came here and not only are the resources very few, but the knowledge that the teachers and the deans have about learning disabilities have been disappointing.” Alyssa also relates that her experience with the Assistant Dean of Students in charge of disabilities was horrible. “She is kind of hard edged. I don’t know how to describe it. I just haven’t found her helpful at all.”

The researcher asked Alyssa how she had negotiated her path at her college, given the lack of services. Alyssa thought about this for a few minutes and responded that “I was thinking about this and this is probably awful to say, but I think my decision regarding my major had a lot to do with my learning disability. I chose to be an art major which means. . . I don’t really have to read a lot and I don’t have a lot of exams.” Alyssa loves art but believes that if she had a few more accommodations she would have chosen a different major. She began her college career as a business major. Her time spent at her first college proved successful for her in this field; however, she also concedes that while there she was taking mostly general education requirements.

The interviewer continued to clarify what Alyssa was relating earlier about her high school years. “So you were trying to self-refer. The teachers weren’t referring you?” Alyssa stated, “No, no. It was just me and myself.” Alyssa affirms that her mother was supportive since she was a teacher and also was diagnosed with attention deficit hyperactive disorder (AD/HD); however, her father felt like “it was all bogus.”

Based on Alyssa's continued performance in school the self-referral process never progressed to an eligibility meeting. The researcher asked her if a child study had ever occurred based on her self-referral. "I think my counselor talked to the person in charge of the LD testing who came back and told my counselor that they weren't able to do it."

Obstacles Faced

The researcher asked Alyssa if there were any specific obstacles that had impeded her academic development. Alyssa states that the first and greatest obstacle was trying but not getting tested for learning disabilities. "That had an affect on my SAT's going into college." She feels that she compensated for that one by doing well at her first college in South Carolina. This opened the door for her to transfer to her current institution. "Coming here there were huge obstacles of time management and balancing everything." She regretfully relates that in South Carolina the LD population was not such an oddity. Though the school was academically rigorous and the students there were intelligent, she had underestimated the impact the accommodations had given her. "All of a sudden coming to a school where, I think the LD population is less than two percent. That is a huge impact, especially when you're not around average kids; instead you're around, extremely bright kids."

This feeling of being ostracized came out in different portions of this interview. Not only did the stigma affect her self esteem, it also impacted the major she felt compelled to choose. "I think my way around this stigma was to become an art major, so I didn't have to deal with all of that." She chose an art major to make her life more comfortable and what she perceived to be a lot easier. "I probably would've tried to double major in psychology and business. But I didn't get very good advising either. My

goal was to be a business major when I came here; however, it didn't work out because my GPA was too low here." The lack of advising hurt her due to her lack of understanding and her lack of knowledge of what courses needed to be taken and by what time. When she arrived at her current college, her desire to be involved with the student body propelled her into extra curricular activities, student government and things like that which made it even more difficult with my time management. All these factors shut the business school door for her, and her desire to graduate within the four year span kept her from pursuing psychology, where she would need extra semesters.

Alyssa plans to graduate in May of 2006. She states that she has "double-checked everything related to her graduation in May, and she will graduate without any problems."

Internal Resources/Strengths

The researcher asked Alyssa to think about her personal strengths or internal resources. Alyssa responded, "I try to be as honest with myself as best I can. I also try to find my passion and be in charge of how to make myself happy." Alyssa's mother states her strengths. "Alyssa is a very determined young woman. She is very creative and has many ideas. She has high expectations for herself. She enjoys being with people and being involved and this made her feel successful socially at college." Alyssa believes that she is honest with her self and finds her personal passion and goes for it. Her mother agrees with this. "She is realistic with herself and in expressing how she feels about things, including her difficulties." When asked what strategies she used with her studies to be successful, Alyssa stated that "trying to do the reward system didn't work for me. I just have to work diligently and consistently. I even do it with tiny things in life, like

going to the studio during outside time.” Alyssa has learned to work hard and then reward herself with some light time with friends. Her mother states, “She is determined as well as creative. She has high expectations for herself. She has found strategies to overcome her disabilities. She enjoys being with people and being involved.” She thrives on small rewards not large ones. She has also learned how to use her friends to help her stay motivated and on top of her projects. “I buddy up. One of my friends here is an art major, and it helps to have a friend that goes to the studio a lot because I need to feel like, okay, I’ll go to the studio with you. This helps me get seated and get my work done.” Alyssa states that her favorite art medium is drawing and painting with oil.

Facilitators/Inhibitors of Personal Development

The researcher asked Alyssa who she might consider an important facilitator of her development. Alyssa reported that her teachers were very important. “My teachers always, especially in elementary and middle school, were the ones who noticed me and noticed my strengths and my abilities. They also encouraged me to work towards them (my strengths).” Alyssa’s mother agrees with this and states that “teachers have been inspiring for her.”

Alyssa also believes her parents, particularly her mother, have been influential because “she’s a teacher and she was very supportive and understood about the whole LD thing.” Alyssa’s mother stood in the gap for her when the cost for testing was absurd to her father. “It cost a lot of money for me to get tested after graduation and my dad was not very happy about it.”

The Assistant Academic Dean of Students was helpful to Alyssa. She saw her on a weekly basis for a couple of years. The dean helped her with time management. She

found her very supportive in all other aspects too, even to the extent that Alyssa considered her “kind of like my counselor and mentor.” “I like going to see her because I walk out of her office feeling better about everything.” It made her life feel like it was more together and the pieces were put together a little better. The Academic Dean was understanding and encouraging. She took time with her to meet and guide Alyssa towards success. She also helped her with organization and became like a counselor and mentor to her.”

The researcher asked if there had been any person she felt had inhibited her progress or development. Alyssa was very resolute in her answer to this question. The Assistant Dean of Students for Disabilities was not helpful for her at all. This was not true of the Assistant Dean of Students (Academic Dean). Her mother verified this and stated that “Alyssa felt inhibited by this dean. The Assistant Dean over Disabilities caused her frustration.” She made Alyssa feel uncomfortable about receiving accommodations.

“I understand that it’s not an area that is very significant here because there is such a small number of people with learning disabilities that come here; however, I don’t think that’s a good reason to ignore it or not fund it well. I think the college could and should do more to help.” Alyssa realizes that one of her chief inhibitors was the fact that she was diagnosed so late. Her mother states it this way, “will power and determination and recommended interventions should help these students meet academic challenges in college.” Alyssa states that there are definitely students who are not identified that have learning disabilities that need testing. She also admits that there are those who want to

get diagnosed just to get Adderall. Alyssa knew a few students who only wanted the medication to speed their system up to help them study.

Educational Programs and Provisions

When Alyssa was asked about programs and provisions, she stated the major thing that had impacted her was academic advising on a weekly basis. It would have been great to have a supportive system for students with learning disabilities. “Here you definitely do feel like a black sheep. It’s really difficult. . . Having to explain to my friends when I have to stay longer to take a test or move to a different room to take a test. I don’t really remember this being a problem at my first college during my freshman year.”

The researcher asked Alyssa if she had the option to have tests sent to the lab or did she have to do them in class. She responded, “The thing is that the options aren’t really clearly defined to the students here. I remember when I first got here, I was given a letter that stated that I was able to receive up to a time and a half and it turned out that actually I could receive double time.” This again was a glitch with the disabilities department. “If they would have gotten that correct first time, I could have done better on a lot of my exams and things like that.”

Focusing Alyssa in the direction of programs she had participated in as a gifted child, the researcher asked how helpful these had been helpful in her development. She revealed that in her AP classes she did well, but she didn’t get any credit because of her issues of time. She scored too low to get the college credit for the courses. Alyssa believes that if she had extra time on her exam she would have passed them and would have gained college credits from high school, however the school would not have her tested. Once she was tested the following report was given:

Alyssa is a friendly, straightforward, and hard working young woman who has been very successful academically and adept artistically. Achievement tests show that she has good academic skills and is particularly proficient in mathematics. The findings from this assessment suggest that she is having difficulty in areas of memory, attention, and processing speed. Additionally, she has problems with comprehension as well as with her ability to express her knowledge. In light of these challenges, her consistent success in school (i.e., a strong grade-point-average that includes work from several advanced placement courses) speaks to her will power and determination. This level of determination, taken in conjunction with the recommended interventions, should help Alyssa meet the academic challenges she will be faced with in college. The results of this comprehensive assessment indicate that Alyssa meets the diagnostic criteria for 315.00 Reading Disorder and 315.9 Learning Disorder Not Otherwise Specified (DSM-IV).”

Advanced Placement classes and Honors classes helped Alyssa to be challenged in high school. During Alyssa’s sophomore year of high school she attended the Corcoran Gallery Portfolio Summer Workshop; this workshop greatly enhanced her knowledge, artwork, and self-confidence, with exposure to many different methods of art,” according to her mother. Alyssa had also mentioned her experience at governor’s school. She was totally enthralled with the experience and the talented students she got to interact with during this time. “I think I was just having a good time and I made great friends there.”

The researcher then asked about pull out programs she was involved in. Alyssa related that those were mainly during elementary school, and she had a hard time remembering them. “I think I was in them not even realizing that I was in them for being gifted when I was younger; but I think that was good.” She related that “when you tell little kids that they’re in the gifted program, they can let their heads grow big or something.”

Crystallizing Experiences

The interviewer asked Alyssa’s to think about any moments across her educational journey that might have been defining moments for her. Alyssa stated that the first she can think of is when she transferred to this college. “I wanted to go to a really good school so badly in high school. I didn’t get in, and one of the smartest things I did, and I told people this, was that I transferred here, into a good school with a much smaller population and instate tuition.” She chose the college she enrolled in during her freshman year because it was the best college she was accepted to. She applied to over six schools. When asked why she applied to the school she went to, she stated, “I didn’t know what I was doing when I was applying to schools at all.” Alyssa believes that many seniors, despite guidance counselors, are not really sure of what they are looking for in a school or considering what is in a school.

Another crystallizing moment for Alyssa was her choice to become an art major here. “I definitely have a lot of fun and I’m lucky because I was able to find something I enjoy so much.” “One of the reasons I say that I probably wouldn’t have majored in just art is because the art department here isn’t that great in terms of preparing you for a career.” The art department is geared towards students staying art majors all their lives

and going to graduate school to be a starving artist. The researcher then asked if graduate school was on her horizon because of this. Alyssa stated that “it seems inevitable.” She alluded to not really wanting to go to graduate school; rather Alyssa would like to take a break. “What I do want to do is find a job in the arts that pays well, and in order to do that, I might have to get some training in computer graphic design or something like that.” Here Alyssa states some frustration she has felt in the art school. She speaks about teachers she has had in the art department who did not understand her disability. She remembers crying when a teacher, not one of her professors, but an art technician who was teaching the class, asked her why she was working so slowly. It was the first class he had taught. He pulled Alyssa aside and asked her why her work was taking her so long. “He didn’t know, because I didn’t supply a letter notifying him I had a disability, because I didn’t think I needed to because we weren’t taking exams in class, but yet it still affected my performance.” He thought her slow performance was due to her lack of concentration and being a poor student. This happened more than once when she could not work fast enough to finish her product. Alyssa stated that, “I feel like a phony or fraud because I need accommodations. I don’t want to tell anybody I have a learning disability unless I absolutely have to.” The researcher followed this statement with a question. What is it that makes students not want to let people know they’re learning disabled? “Because I’m pretty sure a majority of people out there don’t even understand it or believe in it. There are still a lot of people who think it’s a crock or an excuse and unnecessary and the other thing is too, when you get into the real world, when you have a job and stuff like that, you can’t hand your boss a letter saying you’re learning disabled and I realize that.” This became crystal clear to Alyssa when she interned at a fashion

design company out in California. She states that it was okay, that she was just doing side work for them, but she realized out there that she might not be able to do what she wanted to do with the constraints of her disabilities. The researchers stated, “So, you’ll have to find a job that fits the more laid back nature you have?” Alyssa very emphatically stated, “That’s what I mean. I might need to start my own career.”

Environments and Social Contexts

When asked which environments or social contexts have proven to be the most conducive for her learning, Alyssa stated, “The ones where I don’t stand out because of my learning disability.” The researcher asked Alyssa what those contexts might look like. She referred to an experience she had just the other day when she was doing a portrait drawing. She knew that everyone else was farther along on their portrait than she was. She often has incomplete work in class; however, her teacher knows she works hard, and he appreciates that “I’m looking, I’m observing, not slacking off. He allows me to come in after class to work on these projects and finish them in my time frame. This works very well for me and takes the focus off of my disabilities.”

Impact of Strengths and Weaknesses

The researcher asked Alyssa to think back over her academic journey. “At what point in your education journey were your strengths or weaknesses emphasized more than the other? Alyssa states, “My weaknesses were the weakest when I first transferred here. I left a school with numerous resources for learning disabilities and came to a school where there were none. On top of that, the ability of the student was higher here and that made it more competitive.” Alyssa compares the two schools and alludes to their being

so different that they were like “night and day.” Yet, her personal strengths have been very helpful for her since she transferred here.

Alyssa loves planning events and getting to know people. When she transferred here, she became involved in student government. She ran for a position in student government against seven other students. Even though she was new and had to campaign harder, she found her leadership ability rising to the surface and was successful in her bid for a spot in student government. “It was a great way for me to throw myself in, get involved and meet people.” Alyssa’s mother confirms her skills with people and planning events.

In the last moments of the interview, Alyssa reminisced about her academic journey. She compared herself to her brother who also has disabilities. “My brother was much better at time management, even though when we were younger, he was the one who was impacted the most by his learning disabilities.” Alyssa is baffled by his ability to settle for average grades. “He didn’t want to be in those LD classes any more, because he didn’t like the label that was put on him. And in some ways he ended up winning. He doesn’t take the LD classes at school. He is in all regular classes.” The researcher asked Alyssa if he was doing well. She stated that he was doing okay. Here she puts into words the difference between what she and her brother struggle with. “I don’t know how to get it done in time, because it won’t be at the level I want it to be.” Alyssa has a much higher expectation for herself. Alyssa values her product and is not willing to settle for less than what she believes is the best she can produce. “That’s why I’ve always had such a hard time with time management, because I wouldn’t be able to produce an above

average product in a given time. I'd rather turn it in late and have it be a lot better and have it up to my personal standards."

*Case Study # 2 Don**Context*

Don met the researcher in the assistive technologies lab designated for students with disabilities. He entered the lab purposefully and came straight to the chair provided by the researcher. He responded well to initial questions about school and how things were going in general for him. Once the researcher felt he was comfortable, she explained the purpose of the interview. Don appeared clear concerning the objectives. He began telling his story before the researcher turned on the recorder. The interviewer stated, "I don't want to miss any profound statements you might make." Don responded, "I make them all the time, I believe." This created a little more light heartedness between the researcher and the subject. It made the atmosphere lighter and the researcher felt that Don had reached a point where he could relax to tell his story.

Academic Journey

Elementary

Don was unsure of the exact nature of his elementary years. He stated, "Well, in elementary school, I don't remember a whole lot. I remember I didn't like elementary school." His father stated that "Don was tested at the end of his kindergarten year to determine his level of preparedness for first grade. He scored in the 10th percentile. The school asked his father to have him repeat kindergarten, which he agreed to. At the end of Don's second year in kindergarten, his scores had not changed. The school concluded that Don had serious learning disabilities." Don describes his father as the driving force during these young years. "I did decently well, because my dad really forced me to work hard. He spent a lot of time with me doing that." His father shares this same time period

from his viewpoint, “Don and I have somewhat different recollections over what happened. Don had an exceptionally difficult time learning to read. I began to spend a great deal of time working with Don to learn how to read. For obvious reasons, Don does not have very positive views about this period.”

Don also remembers experiencing great difficulty with handwriting. “I always had, I still have trouble writing by hand. It isn’t very efficient and my cursive is fairly illegible and I can’t really do print that fast.” He remembers having to learn to type to circumvent this weakness. He related that he eventually learned to type quite rapidly. Don’s father does not mention that he struggled with writing at this time.

Don diverged at this point and stated once again that he didn’t really like elementary school. He alluded to being depressed and then he stated, “God, I don’t really remember a time I wasn’t really depressed. I’ve always had a lot of emotional problems. I think some of it runs in my family.” This issue is not mentioned in any of his father’s commentary. It was at this juncture in the interview that Don described some of the angst he felt during those years. He seemed to internalize the drama or conflict in his home growing up. He stated that his mother had weight problems after he was born, and he thought it might have been from post-partum depression. There were problems brought on by her weight that had existed beforehand. He remembers her taking a lot of medicine and that her job required her to do an enormous amount of traveling. He talked about conflict also in relation to his dad’s job. His dad was a college professor. Don says, “His job was difficult. He was trying to get tenured at the time.” Don ended his elementary years with some elaboration of this conflict. He relates that his father got tenured while he was in middle school.

Middle School

He begins this period of time in his life with feelings of loneliness and some abandonment. Don's father proffered information on this point. "Don had a very difficult time adjusting to middle school. Don was small for his age and continued to exhibit behaviors that demonstrated that his stress level was continuing to increase; however, Don did well academically with the help of his teachers and continued support at home."

The conflict in his home and the priorities of his parent's jobs seemed to diminish Don's perception of his personal worth. He states, "I just got sick of no one trying to pay attention to me. This was when I started to be openly odd, I guess, so people would pay attention to me." Yet, Don describes himself as a guy that people at school liked. Even though he felt liked at school, he didn't feel like anyone took a deep interest in who he really was. "No one actually knew me or spent the time to get to know me." Don's real friendships were sparse, and the ones he had were "insufficient." He alluded to his high school years as being somewhat similar. "I became more and more popular in school; however, outside of school, no one ever called my house and, you know, invited me over to parties." His memories of school were not happy ones.

High

Don's commentary at this time wove back and forth among memories of between middle school, high school and college. Don's father added that he felt "Don came to view his self-worth; however his self-worth became very tied up in his academic success. This was good but created problems that I was concerned about. To maintain the grades he did required him to spend a tremendous amount of time studying. By his senior year, I

grew increasingly concerned that Don placed much too heavy emphasis on academic success as a measure of his worth.” Don ended his middle school section stating he didn’t really like high school; however, he continued to state he was well liked in high school. Don ran for school president his sophomore year. He credits his father’s involvement in politics as the encouragement for pursuing this. He lost the election his sophomore year, but ran again his junior year and lost again. Not to be deterred, he ran again his senior year. He phrased it this way, “Ah, I think I’ll just sign up to be, ah, senior class president.” He was elected the senior class president that year; however, he states that he really didn’t know why he won. He said to his friends, “Well, I don’t know what you guys are getting me into.” He retraces his thoughts here and states that, “I think people, like really, lots of people like me. I was sort of, was ah, a personality that stuck out my senior year.” Don remembers that he did all he could to be extroverted if he could; however he circles back around to his feeling that nobody really cared. “I guess no one really cared.”

It was at this point that the contrast between home and school was further explained. He felt like everything at school was a surface thing. Home was a very lonely place. “When I’d go home, there was a back room where I’d do my homework. And you know, I’d spend most of my weekends alone.” Don continued his interview focusing predominantly on social and emotional issues surrounding high school.

He related that being class president required him to go to the prom. A great deal of depression had built up inside of him around this time, and he felt pressure to find a date to go to the prom. “People expected me to go to the prom. God knows why. So I asked a girl I sort of barely knew. She didn’t really like me, because she was still in love

with her former boyfriend.” All of these factors combined for Don, and he describes having a breakdown near the end of his senior year. “I yelled a lot at my dad, and, yeah, it caused him to cry, which I’m not really too proud of.” The interviewer followed this statement by asking Don what the breakdown was all about. He stated, “Well, God, a lot of it is about, like school and problems in my childhood.” He then began to reflect on his life at that time. He related that his senior year of high school was too far removed from his childhood and that made it difficult to look back on it objectively and somehow he knew though that was affecting him. “I was really angry at my father and my mother.” Don felt a need to explain this statement. He states that his father was very “introverted, even though he taught in front of hundreds of people.” He felt like his father had a hard time expressing himself. “He was going through a lot of things then too.” He stated that his father had “fallen out of faith and did not take the children to church.” Don’s mother was always the one to take them to church. “I guess he fell out of faith long before I was born. My grandfather had been a Presbyterian minister.” Don could not make sense out of his father’s actions and stated that “he was very angry with him.”

The interviewer asked Don if his anger at his father had impacted him educationally. Don stated, “I guess it made me work harder because you know, I felt like what I did was never enough for him. Anything I did wasn’t good enough for some reason.” Don continued his emotional venting. He felt like God was punishing him due to his lack of faith. “I never paid attention at church. “I wasn’t buying any conception of God as true.” He once again referred to the fact that he had been depressed most of his life, depression was probably genetic, especially since his father had struggled with depression. When his father would become overly stressed, he would panic and would

act like a child. He would say hurtful things and never apologize. “When your father starts acting like a child, you know, that really throws you off. And when your mother’s not really there a lot of time, who else are you going to go to?” He remembers being in his room by himself saying, “I’m sorry over and over for a half an hour.” This was because Don felt responsible for his parent’s unhappiness. “If I’d never been born, then maybe my parents would be happier.” This was Don’s train of thought throughout high school.

When it was time to apply to colleges, he was limited to instate schools. He was accepted into all the colleges he applied to except the one he really wanted to go to. Don was accepted into one college that was known as a selective institution of higher learning. He came to visit the campus and liked it. “But basically I came because, you know, it had a great reputation. So, I was like, wow, I got into this college; I must be smarter than I thought.”

College

Don really liked science in middle and high school. He admitted that he also liked science fiction, but he understood there was a large gap between the two. Science really culminated for Don in physics. “My physics class was my favorite in high school because it really got to the sort of, basic questions about reality.” Don interrupts himself here to state he always liked to ask questions. “I really ask good questions. This makes people think I’m smart. Really, it means I don’t know a whole lot.”

Don states that physics became “sort of a religion for him.” As much as he loved physics, he also became disillusioned by it. “High school physics was one thing; College physics got so far beyond what I learned in high school and then I got sort of lost.” Don

stuck out that first semester; however, it was during this class he realized “I just couldn’t do any of this stuff. My mind just doesn’t work this way.” Don ended the semester with a D in the class and many questions about the real value of science. “I think science is a lot of people’s religion these days because it has some sort of intrinsic value in our society.” He admits that science has made and provided a great deal of progress; “but for me, it’s not the truth any more, per se.” He had begun his freshman year wanting “to explore the mysteries of the universe and be a famous physicist;” however, his difficulty with the subject deterred his interests quickly. Don’s father did not want him to attend the selective institution of higher learning that he chose; “Against my advice, Don decided to attend, which I thought was a serious mistake.” Don’s father felt like the academic environment of the school would “simply be too difficult for Don.”

Don had a hard time fitting into the college community at this institution. “I couldn’t find a good group of friends.” He faced another mental crisis in his life. He got a D in physics and a C- in calculus. His other two classes, only one of which was graded, led him to a 1.9 GPA at the end of his first semester. He was put on academic probation the next semester. He now had to look at the facts related to where he was. “OK, everything I thought I knew was wrong. I was sort of taken aback. I didn’t know who I was. I didn’t know what I believed. Everything I thought I knew, I now felt was wrong.” The academic difficulty of the school did become a problem for Don. From his dad’s perspective, “Don significantly underestimated the academic difficulty of the school; particularly with respect to science and math.” Don had a rough start his first semester.

When Don returned the following semester, he began attending a local Presbyterian church. “So after I came back, I started doing better.” The pastor at the

church reached out to Don and began listening to him. His pastor became a good counselor and mentor for Don. Don felt able to talk with him because “he was nonjudgmental and he made his sermons life applicable. He applied it to different things in life, different analogies from like, literature and science; God everywhere. It really caught my mind and it really got me reading the bible.” Don expressed how coming to God was a process. He had a hard time accepting doctrinal issues, but he continued to study and learn throughout his school year.

During his sophomore year Don had conflicts with his roommate. His social life was not moving forward, and he lived with a guy that was the complete opposite of him. He describes his roommate as “a utilitarian vegetarian atheist.” The joke of that time period was that “I always tried to convince him that God existed and he always tried to convince me to be a vegetarian. Needless to say, I still eat meat, and he still doesn’t believe in God.”

This conflicted relationship ended without resolution. His roommate got to the place he wouldn’t even speak to him and moved out without telling Don. Don got a new roommate who was from Australia. He also moved out on him after three weeks in order to live in a fraternity house.

Don was left alone second semester. He admitted that he “doesn’t do well by himself. In most circumstances I become more depressed.” It was also at this time that the girl he liked quit visiting him. All of these events culminated around an important social event for which he did not have a date. “I went back to my room and spent a great deal of time on my computer. I finally got sick of myself and took a walk. It was this night that Don gave his life to Christ. “And since then I have never looked back. And

you know, maybe, and it's sort of just for me, after that, things started falling into place. Maybe I started being who God wanted me to be, is how I think of it." It was at this point that Don started attending Intersarsity, which is a Bible study for Christians on campus. He states that his trials have continued, but "I really found a community there that I was lacking in my life."

His first semester of his junior year, his grandmother died, the only grand parent Don had known. "And I didn't really . . . you never appreciate people until they're gone." Don was strongly impacted by her death. She was not very talkative, but he found her amazing. "She taught college level for 57 years." He felt she was "brilliant." It was at her funeral that Don gave a eulogy about his grandmother. Following the ceremony numerous people came up and told him how moved they were by his speech. They said, "You know, you have a gift." Before this he had never given himself credit for how good a writer he was. "Thoughts just sort of come out of me. And I do it very well." Don still struggled with accepting his giftedness in this area. It was hard to accept that he was "actually special at something. I always wanted to be special, but never thought I was."

During his junior year, he began writing for a local campus newspaper. He wrote opinion articles. He had to learn to take religion out of his pieces, which saddened him, but also gave him hope because a lot of his articles looked like miniature sermons. He started to put his articles on the web and received input from people who were surfing the web. He received input from a person in Australia. "And, you know, it just sort of hit me, my words had traveled across the world and affected someone I didn't even know, and, I mean, this has happened a lot since I've been writing. People have read a few of my articles and have emailed me, people I don't even know." It was through these

experiences that Don began to discern that what he loved and could do for the rest of his life was related to this writing and sharing with others. He began to believe that his life's calling was to be a minister. He has become more involved in his church and their youth ministry and has been applying to seminaries. He has already been accepted to one seminary in a nearby city. He has applied to four other seminaries including Princeton, Richmond, and Columbia.

Don is a senior this year and will graduate in May 2006. He feels like it has been a long four years. His degree will be in government and history although he likes to dabble in religion courses also.

Obstacles Faced

In order to refocus Don on his academic journey, the researcher asked him if there were specific obstacles that he faced that impeded his academic development. Don stated that he had very slow reading speed that impeded his performance. "I had a learning disability which I think is like dyslexia and basically, slow intake speed (processing speed). It takes me longer to read things." He laments that there was always more reading than he could do. "It became always a matter of picking and choosing and accepting that I can't do some things."

Another impediment for Don was how quickly he would get stressed out. He stated that he would stress out and have panic attacks. Don had difficulty adjusting to the level of rigor at his college. He felt like disability services at the college had been helpful with him early on by letting him register early for some classes, but "after that it hadn't' always been the greatest help, I have to admit." Don's father verifies this when he states, "I convinced the school to permit Don to register early and helped him select

courses which he might be able to handle and reduce his stress level. The school refused to make similar accommodations for subsequent semester.”

Internal Resources/Strengths

The researcher asked Don what he felt were his greatest strengths that had helped him to get where he was today. “I’m a really good writer.” He doesn’t know why he is a good writer. He states that he does not know grammar all that well, but he intuitively knows how to write. His writing has boosted his confidence and helped him tremendously.

Don also feels like he is a diligent worker. He admits that he is not the most organized person, “you can look at my room and tell that, but I have a very diligent work ethic. I do the best I can.” He feels that compared to other colleges his college expects a great deal from the students. A little bit of anger towards the system escaped when Don stated, “I get the, the sort of feeling from the school that it’s either, you know, we’re elite, we’re special and if you can’t hack it, get the hell out.” The college that his dad teaches at seems to help the students more. “There it’s like, we’re going to coddle you and do everything we can to help you graduate.”

Facilitators of Personal Development

The top two facilitators of Don’s personal development were his parents. He puts them in two separate categories of influence. “My father, I must say, has always been a huge part of my life whether I appreciated it or not. I appreciate it a lot more since I’m in college.” Don’s father played a significant role in his educational development. He was always there to push him and make sure he took steps that moved him forward academically. Don’s father goes back to an earlier time here and reveals his continuing

feelings of Don's frustration with him. "In all honesty, I believe Don had very mixed emotions regarding my participation in his academic development. I don't believe I ever told Don that I expected him to get certain grades. However, after carefully researching educational issues related to students with learning disabilities, I did carefully monitor Don's completion of assignments." Don sensed that his mother gave him more emotional support than academic although she was gone much of the time. "She never, you know, worked with me in reading or writing or anything like that, but during emotional times she was much more there for me than my father was." His father was extremely introverted. This caused Don a great deal of heartache, since he wanted affirmation from his father that he did not receive.

Another facilitator in Don's life was his pastor. He credits his pastor with being an huge inspiration to him a person he enjoyed talking with personally. Don was also influenced by one of his professors in the government department. "Before I had him I hadn't really been challenged to think. He challenged me to actually think about things and taught me a different way of thinking." Don also mentioned a few friends that had a big influence on his life; a couple of female friends (he tended to have female friends versus male friends) and his bible study group.

Don's father relates in this section that Don had motor skills difficulties. These deficiencies did not allow Don to participate in sports: however, Don's father got him involved in martial arts in order to augment his motor skills deficiencies. Don's father states that during this time Don apparently felt he had something to prove to himself and others by excelling academically. Don's father felt that some of this pressure could have been self-induced. "The fact that I and his mother have a number of advanced degrees

probably contributed to the pressure that Don placed on himself.” His father states again, “I cannot remember a time I ever told Don that I expected him to get certain grades.”

Don’s father also stated his views on Don’s decision to go to a selective institution of higher learning. Don decided to go to the college he had chosen; he and his father had sharply different views. “I felt this college would be far too difficult and would place much too much stress on him. Equally important, I did not believe that Don was strong enough in math and science to pursue a science major. I believe Don recognizes that I helped him to develop academic skills, but he believes I pushed him much too hard to succeed which made it difficult for him to have a social life.”

Educational Programs and Provisions

When asked about any programs or provisions Don might have received throughout his educational journey, he responded that he had always received extra time on tests. Don felt that this accommodation was more helpful when he was taking more math and science because he was slower at that due to his slow processing speed. He finds that he doesn’t need that accommodation as much any more. He attributes this to his ability to not get panicked any more.

Don remembered a disability program that he was involved in during high school but didn’t feel like it had helped him very much. He was not involved in any programs during college. “You know, I sort of just got by on my own.”

Don’s father stated that the institution that his son attended was not particularly cooperative in helping Don succeed. Although they permitted Don to register early his second semester, they would not permit the same accommodations subsequent. “This made it difficult for Don to put together schedules which would reduce the level of stress

placed on him by balancing the types of courses he took.” The institution took the stand that early registration for courses was not a necessary accommodation for Don.

Crystallizing Experiences

The researcher asked Don if there were moments in his life where everything came together for him to cause a change of direction. Physics, during Don’s freshman year, was an epiphany in a negative direction. “Failing physics my freshman year sort of did the opposite, it propelled me backwards, brought me down.” It took me a while to rebound from that first semester.

Coming to faith was a crystallizing experience for Don. It was through this experience that he found his calling to the ministry which he considers another epiphany. His faith journey also created community for him at a local church with a local pastor. Discovering his natural talent for writing was also crystallizing moment for Don. This culminated during the time he wrote for the campus newspaper. He found writing opinions stimulating even when others didn’t agree with his opinions. He states that “it pushed me along as a person.”

“My philosophy and religion classes have been very influential.” By his own admission these classes have improved him as a person and expanded his thinking. The philosophy classes helped him learn a lot “about different view points and different ways of thinking.”

Environments and Social Contexts

Don related that he felt most comfortable in Christian contexts in his personal life. This was where he felt most accepted and found community for himself at college. Academically he found smaller discussion groups to be more helpful than large lectures.

Impact of Strengths and Weaknesses

Don shares that “for most of his life he has been controlled by his weaknesses.” He stated that “I always got overly stressed about things and wouldn’t talk to people about it. I sort of built up a cycle of putting myself in situations that weren’t really conducive to my weaknesses.” Large lecture classes were very difficult for Don, along with economics and calculus. “None of these things were necessarily good for me; maybe they stretched me, which was good for me, but it’s not really what I was meant to be doing.” Don found that discussion-oriented lectures and small classes played to his strengths.

The researcher probed Don about his frequent admission to depression and asked him how he kept going? “I sort of didn’t want it to beat me, I suppose.” He believes his strong work ethic played a big part in his perseverance. “I just sort of got used to keep going or, you know, just built up a habit of just moving onward and overcoming.” He alluded to an overshadowing sense of destiny and purpose. “I have always had some inherent belief in God that things should work out and everything has a purpose.” This hope kept him moving forward instead of backward.

Don returned to the theme of his family conflicts. He states that his family never really knew how to be a family until recently. “We never really socialized together.” He mentions his younger sister for the first time and spoke of the conflict he had with her. “I’d always have a lot of conflict with my sister and we never had good relations.” Don summed it all up when he stated, “My family just really never found an outlet, when I was young, in which to communicate with each other.”

Case Study #3 Daniel

Context

The first interview with Daniel was a little more focused since Daniel was taking his medication the day of his interview. The second interview was more rushed and not quite as detailed. Daniel was interviewed twice due to a problem with the tape. Daniel was out of school the day we met, and he usually did not take his medication on days he did not have to take a test or be in class. His loss of focus was evident but his willingness to retrace the steps we had covered in the first interview was indicative of his graciousness and his winning personality that were part of both interview sessions.

Academic Journey

Elementary

Daniel was asked to reconstruct to the best of his knowledge his academic journey from elementary school through to where he was today. He definitely remembers that he had signs of ADD even as far back as kindergarten, though he was not diagnosed until his junior year in high school. "I think that I definitely had signs of ADD, but I think that a lot of teachers thought I was a likeable kid. The teachers could really tell that I was trying hard to do it right and so even if I was a little annoying and got a little excited and spoke out of turn or whatever, I think that the teachers realized that I wasn't doing it to be distracting or to interrupt class. I was really just excited about chiming in about certain issues." Daniel feels that his elementary teachers did a good job of guiding him in a positive way throughout grade school. Daniel's mother agrees with his assessment, she states, "Daniel was very bubbly, could not sit down, and one teacher was sure if he could just pull a chair up beside her desk all day, he would be in heaven. He was friends with everyone." He states that he realizes that it could have been a really different story

growing up. Daniel was emphatic that most of his experiences had been good ones. “As I told you in the last interview, (laugh), I had a lot of very positive experiences throughout my academic journey and really in my life as a whole that enabled me to, I think, really be successful about where I am now.”

The researcher asked Daniel how the teachers contended with his ADD in elementary school. He remembers teachers asking him to wait until later. They would say, “Not right now Daniel, Please raise your hand. I think that once I was told, I really tried hard not to really do it again.” He remembers in elementary school they always sat in blocks of four desks, “kind of like a little pod.” “I guess that could have been very distracting; however, I was really a people pleaser and I think that a lot of my teachers could tell it and I was really working on trying to make them happy.” Daniel feels that the focus in elementary school, especially from his teachers, was to help him help himself. He states that this focus made it easier for the teachers to help him and not get frustrated with him. Here Daniel diverges into attitudes from different authorities that he had experienced across his educational experience concerning ADD. “I think a lot of people that have ADD, people or teachers get frustrated with them and they find no real reason to re-engage with the student. You know people just blow you off, you know what I mean; however, I managed to keep the dialogue open and kept the relationship open with my teachers.”

Middle School

Daniel thinks back about middle school and remembers how impulsive he was. “I think that the impulsivity came off as annoying sometimes.” The researcher asks Daniel

to clarify who he was annoying. He relates that mostly he felt annoying to his teachers more so than his peers.

In middle school, he found himself seated in the front of the class frequently. He relates that this was coincidental because his last name began with a B. Daniel's ability to engage teachers and his desire to please others worked well for him until he started taking standardized tests. He also remembers that during this time tests had become problematic. "I mean the first indication that I had a problem was when I started taking standardized tests and really even with regular test, I would go ask questions and stay longer." Daniel remembers the first time he had a specific time limit; this was when he first started realizing that maybe he had a problem. Before this time he had not been diagnosed with AD/HD.

Daniel's disability was recognized by his parents by coincidence also. They had decided to test his brother for AD/HD. Once they started reading the brochure about AD/HD, they started realizing that they were targeting the wrong child. His parents started saying, "You know that this sounds a little more like Daniel than it does Gregory." It was then that his parents sent him for diagnosis. Gregory's needs were targeted first because of angry outbursts. Gregory was a little more problematic for his parents. In the end Gregory was found not have AD/HD and Daniel was diagnosed with AD/HD. Since this time his mother and his sister have both been diagnosed with AD/HD. "There is only one kid in our family that is not diagnosed with AD/HD," states Daniel. The researcher asked if Daniel noticed any differences between his own experiences with his disability and the way the disability impacted his mother and sister.

“I think, I can’t really tell with my mother, but my little sister is definitely very impulsive.”

High School

Daniel remembers that during high school, when he started taking his medication, he had an interesting conversation with a teacher. “I started taking my medication and I remember one of my teachers coming up to me saying, um, you are like, a lot easier to get along with now that you are on Adderall. Actually, you were really just annoying before.” It is amazing that a teacher would say this to Daniel, but fortunately the teacher also affirmed him by stating that now she realized it wasn’t really his fault. Daniel questions this encounter. “I don’t know if that was really a positive experience or not.” Upon further probing Daniel remembers that the teacher had taught him during his freshman year of high school and then also as a senior and the difference was remarkable to her. “She saw the difference, but really, I think that could also have been maturity. “

Daniel remembers that by ninth or tenth grade he had already developed some very effective coping strategies. “I always took notes in class, that was one of the ways that I really focused on what the teacher was saying, even if I didn’t, (this sounds terrible) but even if I didn’t actually hear what the teacher was saying, I could write notes and read them later and kind of like go over them, and this would help me recall the things that he would have said or at least partial things that I had listened to; even though I was kind of, in and out of touch.” The researcher rephrased this at this point. “So you basically weren’t tuned in but you were writing down the words that the professor was saying?” Daniel described it as not necessarily that disconnected. He just remembers zoning out during his lectures. “At some points, I was really paying attention, but at other times I

would realize that I was writing and, yea, really wasn't listening at all. I guess by writing everything down, it let me go back and study with a complete set of notes instead of not remembering specific things that the teacher mentioned. I kind of missed a huge chunk of the lecture." He thinks that writing notes helped him to stay more focused than he would have been without them. It allowed him to not get distracted in other ways.

Daniel states that he can be distracted by "the clock, talking to my friends, passing notes, etc. Taking notes was a coping strategy that I developed very well and it has worked for me."

Daniel's mother shares a piece of his life that he did not share during high school that demonstrates a strong interest he had at that time. "In high school Daniel traveled with a drama group. The group was called Mishpacha (Mish). It was a Christian drama group that performed a play entitled, 'Dead Serious about Life.'" Daniel loved this activity with the drama group; however, it was all consuming for him and his family."

College

Daniel's dependency on note taking continued into college. He is very descriptive about this coping strategy. Daniel describes a particular lecture in which he was engaged while he was in a college class. He decided in this class, on this particular day that he didn't need to take notes. "I'm just going to sit here and listen. I'm kind of tired, you know, and I don't feel like taking notes. Then I remember being at the end of that class and thinking: I might as well have not shown up today, because I have no clue what we learned today. I didn't take any notes and I just remember the first five minutes of class, then phasing out, then five minutes in the middle somewhere, and then nothing until the last item on the list for the day." She stated, "That's a lot of inattention."

Probing further, the researcher asked Daniel if the class went fast. “Did you start the class, remember the first five minutes, and then it was done?” Daniel hesitated with this answer. He first stated that it did go pretty fast but upon further reflection he changed his mind. “I mean, maybe not. Maybe when I write notes it goes faster, because I was not attentive to what he was saying, but I was very aware that I was in class.” This seems like a dichotomy, but Daniel finds that the class goes faster when he is taking notes. When he is not taking notes, he is painfully aware that he is in the class, that he is not taking notes, but he must sit there and work through his own personal distractions. The researcher asked him if he paid attention to what others were doing. “Yea, you know I would look at other people writing notes or look at the clock, again. I would look at the professor and I could recall most of the visuals that he put up that day. I am a very visual learner, and I think taking notes makes me focus on what’s on the board.” Here, Daniel diverged into the fact that it was very popular to have power point presentations and the teachers would print the notes out for you. He reiterates that he must do the writing. ““that doesn’t work for me. They print them out and I just look at them. I need to just actually write. I mean it sounds terrible but even when I am writing unconsciously, I am at least thinking of the word I am writing. I have to write out every word when thinking about it.” Daniel believes that some teachers get mad at him for taking notes when they have provided the power point notes but he has come to accept that taking notes is necessary for him to learn.

The researcher asked Daniel if there were any other coping strategies or accommodations he used in college to be successful. Daniel stated that after he was diagnosed in his junior year of high school, he was allowed to use extra time on his tests

which improved his grade. This improvement in his grades caused some teachers to question his need for extra time on tests or what he was really doing during his extra time. "I started doing so much better on the tests that the teachers would want to sit with me because they thought I was cheating somehow." They did not believe that just extra time could improve his grades so much.

Daniel continued to use extra time in college. He received double time for his tests. The researcher asked him if he had used this accommodation all the way through college. "No, actually, when I started there was some trouble with my paper work and I had to get retested." This was a very unpleasant process for Daniel. "I got the feeling that people who were working with me from the dean's office were very critical of ADD and that was really hard. It is hard to say, I have a problem and then have someone say that they don't think it is real." The researcher probed this a little further to ask if these statements were from professors or people in the office. Daniel replied, "People in the Dean of Student's Office, where you get supplied." The researcher did not quite understand this so she asked, "But weren't you diagnosed in high school?" Daniel related that the office said he did not have enough testing or the right testing. This initial resistance was one of the reasons Daniel chose not to apply for accommodations his first year. He found that he could manage the introductory classes without accommodations. However, during his sophomore year things changed drastically. "It was by far my worst semester." The researcher asked him why this semester was so difficult. Daniel had involved himself in a great deal of external activities. He also felt like the levels of his math classes were more difficult. Daniel was also taking a large class load carrying 18 semester hours. "I had all these really hard classes especially the math classes. I needed

the extra time to work out the problems. And most teachers, here, if I just asked for extra time, they gave it to me.” This semester turned out to be different. His professors would not give him the extra time. “I had never encountered this here before.” Here Daniel exposes another reason he had not sought for the accommodations he had before college. “I didn’t want it to be on my college documentation.” He knows now that his accommodations would have been confidential, but he believed initially that it would affect his standing for his degree. There were three reasons he did not seek accommodations. The first was the resistance he felt in the dean’s office, the second was that his accommodations would be seen on his transcript and would somehow compromise the status of his degree; the third rationale was he felt like he was cheating if he received accommodations. “I just felt like, it was almost like I was cheating because if everyone else didn’t get extra time, why should I.”

Daniel’s mother provides another perspective on his decision to study abroad. She states that when Daniel went to college his first semester he dove right in and took Physics 2, even though it was strongly recommended that he do Physics 1 first. He also did Calculus 2, even though he had not had Calculus since the eleventh grade. “He seemed to strive for so many difficult courses. He was setting himself up for a really heavy work load. First part of second year was not a good term with less than stellar results. Following that, he took a semester at University of NSW in Sydney, Australia.” His parents state that this experience was interesting, but not highly beneficial.

Daniel has a different take on how beneficial the semester was. Daniel decided to study abroad the second semester of his sophomore year. Spending a semester in Australia, he found the educational system in Australia more realistic and less driven to

perfection. “A lot of people here in the United States are driven to absolute perfection, because you need a 100 on everything. Well at least it is possible to get 100 on everything, so people here are always trying to be perfect. I don’t think that is very healthy. I didn’t think that, however, until I went to Australia and there the score of 100 was equivalent to an 85. They believe that if you get a 100 you shouldn’t be in the classroom, you should be teaching the class. You should be an expert in your field. And so, to get an 85 was extremely difficult. What I think it instilled in me was this idea that you can’t know everything unless you are an expert. You got congratulated when you received the high distinction of earning an 85.” Daniel felt this left the door to learning open. If you want to learn more about the topic, you needed to spend more time studying it. He felt like this created the leeway to know you didn’t know it all, and you had something more to learn. “Here it is like, hey I got a 100, I know everything or something to that effect. I really appreciated the insight I got that semester.”

When Daniel returned to the United States during the summer, he signed up for the testing necessary to qualify him for extra time. He had learned from his previous fall’s debacle that he needed this accommodation even if he didn’t always have to use it. “I decided, I just want to have it documented so that if I need the extra time, I could have it.” He has found the accommodation extremely helpful as he takes Japanese. A foreign language requires many processing skills. He refers to the difficulty as he retraces the metacognitive processes and reveals how hard it is to stay focused throughout the entire foreign language process. “I mean you have to read it, then you have to think about it, and then you have to translate it and then you have to write or respond to it somehow and if you get distracted during any parts of that you have to start over, so it can really be just

a pain in the butt to finish.” Daniel is acutely aware of how his ADD impacts all of the details involved in the learning process.

Obstacles Faced

The researcher asked Daniel to try and recall specific obstacles that he had faced that impeded his academic development. Daniel related that there were very few obstacles in his younger years. “I think that I have had a much more positive experience than many with ADD.” He feels that his teacher’s attitudes toward his disability were extremely upbeat during his formative years of education. “There weren’t obstacles like; I don’t want to teach you because you are disrupting my class or you know, anything about when a teacher got frustrated with me.” He acknowledges that most of his difficulties were during college; however, he remembers these as having been mostly administrative concerned with how much extra time he could get or why he should get extra time. He also felt like having to be retested before receiving accommodations was frustrating.

Daniel also refers to his impulsivity as being somewhat of an obstacle for him. “I think that it was an obstacle at one point but I think that I have learned to tone it down a bit. You get the urge and you just put your hand over your mouth and don’t say it. But, I think in class impulsivity can be a really great thing, if it’s used correctly.” Daniel describes the positive side of his disability. He remembers times in class where all of a sudden his hand was in the air, and he was participating in class. His ability to interact in class made his classes more interesting. He realizes that there must be a correct procedure for this kind of interaction. “Now, if I just shouted out an answer that might not be the best way to go about it; which I learned very early in life.

Daniel also believes his medication was an obstacle for him at times. He sees the medication as both a hindrance and a help. “Yea, it has been a benefit for focusing; however, I don’t take it on the days I don’t need it. That is because I don’t like how I feel when I take the medication.” Daniel states that doctors told him that if he would take the medication regularly, he wouldn’t have those negative feelings anymore. Daniel, however, believes that if he takes it regularly, he will begin to accept the negative feelings as becoming normal. “When I take Adderall and this isn’t just something that I say, this something that other people have commented on as well. When I am taking Adderall, people ask me things like, ‘What’s wrong?’, ‘Are you okay?’, ‘What happened to your spirit?’, or ‘Where did your joy go?’” His friends questioned him about why he wasn’t acting like himself. Daniel missed this part of his personality and talked with his psychiatrist about it. His psychiatrist told him that it was just part of the impulsivity that he missed. Yet, Daniel was not content with that answer. He mentioned how even his sensory intake was altered by the medicine. “When I walk by the Crim Dell, and I look at it, when I am off my medication, I would think, Wow! This is just gorgeous or like I could hear the birds chirping or whatever and it was like sunny and just like a beautiful experience like a lot of people feel like; oh, this is great! When I walk by when I am on medication, I look at it and I know this is supposed to be beautiful, I know that the sun is shining, and I can feel the sun shining on me and it is hot, but it doesn’t all come together like this. It’s more like a shadow of what it should be.” This is why Daniel chooses not to take his medication on days that he is off. He is emphatic that “There is no way you could make me take the medicine if I’m going to be out at the beach or just enjoying myself.” Daniel is also afraid that if he took his medication consistently he would have

to bump the dose up just as many of his friends have had to do. “I really don’t like the idea of having to bump up my medication. I would rather see myself weaned off the medication versus taking higher and higher doses. That scares me.” Daniel alludes to the fact that he doesn’t want Adderall to be a permanent part of his life. He also is concerned about the stress the medication puts on the body. “I think that Adderall puts some unnecessary stress on your body. I know that when I get out of tests, my heart rate is up and I just feel stressed regardless of whether I did good or bad on the test and then I’m in kind of a funk for the rest of the day.” He compares this to when he takes a test and he is not on the medication. He takes the test and pretty much lets it go. “I’m done with the test; there’s nothing I can do about it, so I let it go.” The researcher notes that Daniel is evidently very in tune with himself. He is aware of exactly what is happening to his body, his emotions and his senses; Daniel agrees with this but notes that the intensity is turned up when he is on the medication.

Daniel’s mother states different obstacles that Daniel faced. “AD/HD was a significant obstacle resulting in underperformance, especially on timed tests. This was due to inattentiveness and at times hyper-focusing on a specific problem, rather than continuing on.” The second obstacle was Daniel’s intense need to be social. “the social side was that side of him that compelled him to spend a great deal of time in extra activities, which pulled him out of classes too often. He missed a lot of classes and was given more extensions than I had ever realized.”

Internal Resources/Strengths

The researcher asked Daniel to think about his own personal internal resources. Daniel replied, “I think that I have, there is some deep place within me where I can get a

lot of motivation to do something. I think that has been my greatest strength. That I can push on through a million impossible things, keep working at it and make some things happen.” Daniel states that in a paradoxical way, he is better off having a fifty/fifty chance of failure or success. Daniel loves tackling huge problems. “If I don’t get success at the beginning, I will work toward some part of the goal.” He loves a challenge and thrives when the challenge has a chance of being impossible. His mother states that “Daniel dreams up things he wants to do and actually does them. “He did the Sydney semester with little help or encouragement from anyone. His resume is completely full of jobs he has held since grade eight. Daniel has completed all that he has done based on his own initiation and secured by his own drive.”

Daniel found AP classes challenging. He found most of them difficult but really enjoyable. His thirst or need for a challenge was met in these college-paced classes. “Those classes are taught by the best teachers and professors and so being able to succeed pretty well in those, with other kids just like me, led me to build up that whole foundation.” He relates that these classes were necessary for him and alludes to the fact that had he not been in them he would not have fared as well as he had.

Facilitators of Personal Development

The researcher asked Daniel to identify any important facilitators of his development or any key inhibitors. Daniel replied, “O, I think that my parents were key facilitators.” Daniel remembers when his father brought a desk into his bedroom, “cleaned it off, wiped it off so it was not dusty, then he went and got a lamp and took the lamp and put the lamp in the corner, plugged it in and turned it on and said, ‘This is your desk.’” This made a huge impression on Daniel because to this day these are the

conditions he needs to study. He states that he stills needs a clean desk, and he still needs a well-lit space to do his homework. Daniel's mother states that Daniel would say that his dad had a very important role in his life. "Daniel, Sr. has made an effort to spend a lot of time with Daniel over the years. He has been a good role model and Daniel looks up to him."

Daniel appreciates his parents' work ethic and how they instilled it into him. "I can only imagine when I grew up that if I tried to do home work in front of the TV, what different results would have come!" The value his parents placed on getting his work done was definitely a key facilitator for him. He also values his parents understanding of his own personality. "They were very willing to help when I had problems, even though I would sit down and do math, they would say things completely different than the teachers and this gave me more insight into my work."

Daniel related that there were numerous teachers who helped him. "They were just really willing to just be there, not get frustrated with me." He is very grateful that they gave the time they did. Daniels mother states, "In addition to his father, Daniel has had a number of teachers and men who have had a huge impact in his life in very significant ways."

When speaking to hindrances to his academic development, he did recall the problem he had with the people at the dean of student's office and professors who believed that ADD was a joke. "They think it is a joke and it is just an excuse to have more time. . . I don't even understand that because really what's another half an hour on a test. If you know the stuff or you don't know the stuff, it doesn't really matter how long you sit there, you know looking at a blank paper." Daniel articulates the angst he feels

over needing the extra time and the judgment he perceives surrounding his accommodations. He ends this section by stating that “the only reason they care is that they don’t want to sit there for another half an hour and proctor it. They certainly could get a GA to proctor it.”

Educational Programs and Provisions

Daniel’s mother responded to this section by stating that “Daniel did not receive any program and provision for his AD/HD until his senior year in high school. He is so self-motivated that he did not ask for accommodations when he first entered college. He finally saw the error in that thinking.”

Daniel recalled participating in a regional talent search from a well known institution. “It is actually why I got fast tracked in my math and I think that really created like some more challenges for me.” Daniel revisits his need for a challenge at this juncture. “I really have a high chance of succeeding when a chance for failure is the greatest.” His experience in the talent search had placed him in competitive math situations and had allowed him to gain the confidence he needed to have in order to face challenges and know that no matter what came his way he could “get up to par with it.” His accelerated math classes led to his participating in other advanced placement opportunities. He was not afraid of getting a B or a C in the class. “I just really worked hard to learn the most I could.”

The researcher probed Daniel about his response to challenging situations. She asked, “If it is not challenging, how do you respond?” Daniel related that when there is not a challenge, he has a poor response. “It doesn’t seem interesting to me. So, interest is a lot involved with it; interest and my succeeding are very interchangeable with me. I

have to be interested in order to succeed at it and when there is a good chance I might fail at something, it usually draws my interest and causes me to work harder at it.”

Crystallizing Experiences

One of Daniel’s crystallizing experiences was when he figured out how important it was for him to take notes during class. He has continued to use this strategy throughout college and it has been a positive intervention for him. He also feels like his deeper understanding concerning his need for extra time on tests was another crystallizing experience. “I tried to do the college scene without this accommodation and created the worst semester I had in college.” This experience was more of a facilitator because of an inhibitor. Having to retest for a condition that had just been diagnosed his junior year in college was confusing. Plus the feeling he got that somehow receiving the accommodation was really cheating, since in the “real world” no one could really give you extra time on an assignment or a task. He also had to deal with the first negative response from people in administration towards students with ADD. Daniel felt like the whole experience gave him the feeling “that the people who were talking to him each semester were very critical of ADD. I don’t think they realize how hard it is to admit you have a problem, and then in turn have someone say that they didn’t think your problem was real.” Daniel resolved these feelings his junior year when he knew he needed the extra time and decided to go through the process to be identified.

Daniel also believes his semester abroad was a real defining moment for him. He realized more deeply that the purpose of education was to learn, especially at the level he was studying. Another very important realization for Daniel was his loss of sensory intake on the medication. He has learned to use the medication when he needs it and then

allow himself the freedom to be ADD on the days when focus is not necessary. He states this earlier in the interview when he describes the sensory dulling he feels on the medication; “I know things are supposed to be beautiful, I know that the sun is shining, and I can feel the sun shining on me and it is hot but it doesn’t all come together into this, wow, this is really beautiful. The medication causes my experiences to be more like a shadow of what it should be.”

Environments and Social Contexts

The researcher questioned Daniel concerning contexts or environments that were good for him academically. He responded,

“I need to study by myself. I love wide open tables. I need well lit spaces with no distractions. Like this poster on the wall. I could sit here and begin to think and not do any work and make up stories about it. ‘Gee, the Olympics would be fun to go to. Yeah, and the Paralympics would be great. I wonder what it would be like there.’ I would have this whole running dialogue with myself over the poster; the same with the big box behind you. I think it is a sound booth, but I would think about what it was, what it would feel like to be in it, how it was used, and what other things it could be used for. My distractibility and ability to engage in long conversations with myself over things that I see would keep me from studying or hearing what a professor was talking about. That is why I have to take notes to keep my focus on what the professor is saying and not what is going on around me. I can make up wonderful stories and figments of my imaginations. I need to stare at a white wall, or something

that is very normal. Like in the library there are just rows of books. There is not much excitement about that.”

Daniel also related a time when he brought his computer to the library with him. “If I bring my computer, because I need it for typing, then I have to turn off the wireless, otherwise I would get distracted by it.” He would look at his email and get distracted by Instant Messenger and then start surfing the web. Daniel is also distracted by other people. “The more people that enter the group, the more likely I am to get work done.” He qualifies one situation where this actually works to his benefit. When he is working on group projects, he finds that he rises to a position of leadership and is good at delegating and assigning portions of the project. “This way the project gets done.

Impact of Strengths and Weaknesses

Daniel feels the strongest when he feels he “is king of the hill.” He feels like now that he has ended his junior year and has started his senior year that he has mastered concepts that needed to be mastered during this time. “I am ready to move on to something bigger and better and in many ways I feel like I have really mastered my weaknesses and really improved my strengths. Daniel states that his overcoming has made him stronger and as he puts it, “I am a notch better for what I have to do next.” He confirms that his weaknesses were the weakest during his sophomore year. “I was overloaded and had not applied for the extra time on tests necessary for me to do well in particular subjects, particularly math and Japanese.” Daniel is excited about his senior year and exudes confidence that this next year will be a great year for him.

*Case Study #4 Sabrina**Context*

The young student walked into the lab, somewhat nervously. In order to create some comfort level, the researcher got up and met her at the door and escorted her to her seat, asking what her preference was for seating in the room. Once seated, the researcher began asking a few introductory questions that were not recorded. The researcher asked questions about school and how she was doing. This seemed to ease tensions that are natural when two strangers meet with nothing in common except a survey. The researcher took time to restate goals of the study. Sabrina seemed more at ease when the researcher reminded her that anything she said would be totally confidential. Sabrina was also made aware by the researcher that a transcription of the interview would be given to her so that she could restate anything that didn't quite represent what she truly meant.

Academic Journey

Elementary

Sabrina immediately acknowledged that she was diagnosed with an auditory processing disorder and dyslexia very young; she remembered that it was age six. At the same time giftedness in mathematics was unusual. She had a tutor that kept her stimulated in mathematics. She also remembered having a special education tutor. "I remember a couple of things about the tutoring but mostly I rely on what my mother has told me or what I have heard her telling other people." Sabrina went three times a week to a disabilities specialist that worked with her auditory processing disorder and was she also seen by a therapist for dyslexia. Sabrina's mother spoke of her giftedness. "At the age of two and a half Sabrina was doing fifty-five piece puzzles. She would turn the

pieces upside down and assemble the puzzles backwards without the benefit of a picture. She happily entertained herself in a variety of ways as an only child. Once in Montessori school, she became extremely shy around adults, but methodically went around the classroom and performed all the mathematical station with extreme ease. Sabrina challenged herself in math constantly. Her mother states, “She mastered all the math activities in the classroom; all the way up to the third grade level in first grade. She would move about and challenge herself without any prompting. At home, she was always very social and outgoing, so we couldn’t figure out why she was so quiet at school. She got over it by the end of her first year.”

Sabrina states that she “began her education in a Montessori school, which didn’t work out very well for her. I hear stories of when it came to reading, I would look at the pictures and would make up a story with complete sentences, but the teacher wouldn’t be looking over my shoulder and they would say, ‘she’s reading just fine. What is the problem?’” It took the prompting of her mother to bring to light that Sabrina would make up complete sentences, making good stories; however, the stories were based on the wealth of stories she had heard coupled with the pictures in the books. “So my mother told them, ‘Look over her shoulder! She is making up sentences.’” Sabrina’s mother confirms this part of the story. “By the time she was to move into the first grade classroom, we noticed that all the average kids were reading well, but Sabrina was not reading at all. Her spelling tests (bog, dog, log, cog, fog, hog, jog) were marked with a big red “x” beside every word, because every word was wrong. She would crumple them up in frustration and then give them to me. This was our first clue. We got her tested and learned of her disabilities. The school refused to accept the fact that Sabrina had any

learning issues. Not only were they unable to pick up on the fact that she could not blend two letters, they complained that she did not participate appropriately. I explained to them that Sabrina had been read to every day of her life since the day she was born, and she knew how to make up a story that followed the book. Then, when she did start reading, they complained that she spent too much time in the little library room reading by herself. I explained to them that now that she was able to read, she was hungry to explore the world that was forbidden for so long.” When it came to math, it was a different story. “I remember, as a first grader all I could add and subtract. So I would think of the hardest math problem I could and I would take my little composition notebook and make the problem with all nines. So I made, 9,990,000 and I added ten rows of this. I filled an entire page because that’s what I knew to do. So, I was challenging myself!” Sabrina’s mother elaborated that the psychologist recommended that they also attend to Sabrina’s strengths. “In many cases when people only focus on the weaknesses, all the child experiences is failure. It was recommended that we get her a math tutor so that she could feel accomplished and successful. That’s what we did.” Sabrina continued in this mode of self-challenge throughout elementary school. When new pieces of equipment were brought into class, she would listen to the instruction on how to use it, and while other children crowded around to see it, she would go off and do something on her own. Her teachers felt this was problematic and possibly indicative of some social problems. Sabrina explains it this way: “I’d seen Play Dough before. I didn’t need to jump in and play with it like other kids. I just went off and did my own thing, and they saw this as a problem too.” Sabrina’s mother verified how quickly she caught on to things and moved on to the next adventure. “Sabrina mastered things

quickly and would move on. She was able to conceptualize the problem and did not need to get her hands on it; she was thinking on a higher level than her school could accept.” During first grade Sabrina switched from the Montessori school to public school. The public school placed her in second grade, based on her testing. “So I jumped from first to second grade and ended that year and did well. So I immediately went to third grade.” “The county psychologist reviewed her case and recommended that we place her in either first or second grade depending on where she fit better socially. That is when Sabrina remembers spelling tests becoming extremely difficult. It was at this point that Sabrina began to use a spell checker. Her mother was not in agreement about the use of the spell checker. “I wanted Sabrina to learn how to spell; the teacher thought she should use spell check. The teacher won.”

The first time through her list she would not “get a single word right; maybe not even starting with the correct letter.” It was at this time that her mother put an easel in their living room and would write the words for her, since her handwriting was not very good. “Repetition for the entire week, everyday, taking tests, practicing and redoing them, drilling them, drilling them drilling them and in the end, I did okay.” Sabrina became aware towards the end of third grade about the struggle her mother was having that year with her classroom teacher. It was over the use of a spell checker. The teacher felt like she needed one and “mom didn’t want me to use it.” However, the teacher and the use of the spellchecker won and Sabrina uses them to this day. She cannot discriminate differences in words that are similar so she spells them as closely as she can and then chooses the correct word from the thesaurus on the spellchecker.

Third grade was a significant year in Sabrina's school system. In third grade you could test for the Gifted and Talented (G/T) Center. "I didn't get in it my third grade year. And my fourth grade year I didn't make it either, but I did make it for the pull-out G/T class. In fifth grade I did make it in into the G/T Center, but by that point in elementary school, all the G/T kids had been in G/T for third, fourth, and fifth and all knew each other. So, that was tough there, to step into that class, into that new social dynamic." In third and fourth grade at the regular school Sabrina was the only "white, blond haired, blue-eyed person in the class." She remembers strange and immature things happening in the classes. A kid stuck a paper clip into a light socket. She was also bullied by a group of girls that would gang up against her. "I remember those were horrible years, especially since I wasn't being challenged in my areas of strength enough."

During early elementary school, Sabrina had a special ed tutor and then a little later on she had a math tutor to keep her challenged in her strength area. "I was a year ahead in math because I kept working forward in something I could excel at." Fourth grade was very difficult for Sabrina. In fact she states, "That was quite possibly my worst year in school ever." The social dynamic was difficult along with the lack of challenge. Fifth grade went a little smoother, even though there was definitely a clique. "However, it didn't bother me. I would just read a book. I would interact with my peers well in class and everything else, but through middle school, I would just be the one reading a book. Once I learned to read, which was a huge struggle, I wouldn't put books down." Her mother's description of this period is slightly different. Sabrina tested for the GT center during third through fifth grades; however, her mother did not want her to move out of her current setting until it was not longer beneficial for Sabrina. "Sabrina

began to be picked on this year, so the environment was not longer right for her. She had already begun hanging out with students from the GT program when she was on the playground.” In fourth grade she participated in a pull-out program but went to the GT center for the full day in fifth grade. Sabrina’s mother relates: “Sabrina was tested and was denied a spot in the GT class. I fought the decision but had to work with Sabrina over the summer to advance her in math because the GT class was ahead. After two appeals Sabrina was allowed in.” Prior to being accepted into the GT center, Sabrina had begun to experience isolation from the peers in her regular school. “The normal kids began to pick on Sabrina because she was different. She needed to be with other gifted kids.” Fortunately, Sabrina found her solace in reading. This isolated her from her peers but she was also interested in what she was reading

Middle School

Sabrina would read during down time at school and then found interests outside of school to satisfy her social needs. She participated in ski racing and pony club. “I had that social outlet but the dynamics in school weren’t quite the same.” All through middle school Sabrina was ahead in math, taking geometry her eighth grade year. She was in a particularly “rough” middle school. It was an inner city school, where misbehavior was rampant, the socio-economic status was low, and students were not particularly interested in education. Her perception was that the G/T Center was located in this particular school to pull it up. “There were pregnancies; there were gangs; there were broken windows; there was vandalism in my middle school.” She states that from her perspective her G/T group was “a little more isolated from the destructive activities occurring in school, but it was still, an interesting environment.” The G/T group,

although isolated, was still impacted by the school environment. Heather's mother elaborates and verifies Sabrina's story. Sabrina's mother monitored her in school weekly throughout middle school. "I knew that environment was key for Sabrina." Sabrina learned to balance her difficulties at school with activities outside of school. This satisfied her social needs as well. She continued to be accelerated in mathematics. "Sabrina's teacher in sixth grade felt that Sabrina was a good candidate for the math and science magnet in their county. He felt that Sabrina would definitely excel there." She continued in the GT program in her middle school. Her GT program was inside an inner city school with pregnancies, gangs, broken windows, and vandalism; however, the program provided an island in the middle of all this chaos.

Eighth grade was the year students tested to get into a well-known math and science magnet school. Five people from her class got in; three girls and two boys. She was one of the girls. The draw-back about being accepted to the magnet school was they took away her 504 plan that had thus far driven her accommodations for her disabilities. This became a battle between the school and Sabrina's family. Her mother had to advocate for Sabrina but found little success until the end of Sabrina's freshman year.

High School

High school posed different problems. Sabrina's disabilities were hidden under her amazing ability in math and science. Her magnet school would not allow her to have accommodations when she began. Even though Sabrina's mother was advocating strongly for her, the school insisted that Sabrina's grades were too high to justify any accommodations. This forced Sabrina to take classes that challenged her disabilities without the accommodations that were necessary for her to be successful. Sabrina felt as

if the school had placed her in a position where failure was inevitable, especially in foreign languages. They refused her accommodations that first year and as a result, even with the help of a tutor, Sabrina failed French. Sabrina's accommodations were literally her academic life line in subjects that required strength in the areas she was disabled. Her mother agrees with this description and fills in some of the missing pieces. When Sabrina tested and was accepted into the local math and science magnet, she was unaware that they were going to deny her accommodations while she went there. Her mother relates: "After fighting for the 504 and it was working she arrived at the magnet school and they literally pulled the rug out from under her. They did not accept her 504 that had been written the year before." This became a huge battle between the school and Sabrina's family. Her parents hired a professional advocate to fight for Sabrina's accommodations; however, the battle could not be fought in time to save Sabrina's grades in French; without accommodations, Sabrina was set up to fail.

One thing that people misunderstood according to Sabrina was that "all the pressure to do well was self-motivated. I will stress myself out completely because I try so hard and I put so much pressure on myself and its never . . . my mom . . . or my mom and dad; I put so much pressure on myself that when I don't do well, it's almost like I have a breakdown." Sabrina was not happy with failing French; however, the battles being fought by her parents resulted in future victory. She was later able to pull her French grades up.

Sabrina's junior year in BC Calculus hit a glitch when her 504 plan did not include preferred seating. In third quarter, "the teacher put me in the back of the room under a fan. I went up to her and said, Look, I can't sit here. I can't hear or see the

instruction.” The teacher responded, “Well, everybody has to take their turn.” Sabrina stayed under the fan the entire quarter. Her grades fell from A’s, to B’s, to C’s “just because I couldn’t see and I couldn’t hear.” The next quarter she moved to the front of the room and in the fourth quarter, she got an A. The net result though was a lower grade than she could have gotten and a quarter which left some holes in her learning which impacted her final exam. “That one grade brought my whole GPA down because I didn’t do well on the exam. You can bet the next year, preferred seating was back on my plan.” Since Sabrina is very sensitive to her environment, a non-conducive one negatively impacted her learning. This is verified by Sabrina’s mother. “Sabrina works hard and takes failure very personally. She puts a great deal of pressure on herself to excel. When she cannot excel, it often produces a personal breakdown. She always asked for preferred seating but it was not on her list of accommodations. Teachers had been accommodating and allowed her to sit in the front where she would not be visually or auditorially obstructed. The importance of this was magnified her junior year in BC Calculus. First and second quarter were fine; she was allowed to sit in the front. Third quarter her teacher allowed other students to sit in the front and made Sabrina take her turn in the back under a fan. This compromised Sabrina in her ability to take in data visually and the fan made it difficult for her to hear the lecture. Her grades fell that quarter. In the fourth quarter, she was allowed to move back up front. Her grades rebounded but not enough to keep the class from impacting her GPA. This illustrates how important accommodations are for Sabrina.”

Finding ways around requirements and negotiating accommodations was central to Sabrina’s high school years. In order to satisfy college language requirements, she

went to a community college and took French while she was in high school. Her high school counted that semester of French as her fourth year of French, “so I was able to fulfill the college’s language requirement and avoid taking foreign languages in college. “Any way I could avoid taking a foreign language was important, because English was a foreign language to me, so having to take on another language was impossible.”

Psychologists had told Sabrina’s mother, when she was younger, to avoid foreign languages because, her disabilities made them very complicated for her.

Sabrina took classes every summer to allow her schedule to be a little more spread out. Between her freshman and sophomore year, she took physics at the community college. “I took it in the summer because I needed it for a premed major. I also certified as an Emergency Medical Technician (EMT) that summer.”

College

The accommodations issue plagued Sabrina throughout high school and followed her into college. “In coming to college, it was very difficult to get accommodations.” Sabrina could not understand why they wanted to re-test her and re-certify her completely for disabilities. They didn’t accept her 504 plan from high school, and she had to get new documentation in order to secure accommodations for her disabilities. Sabrina’s mother states, “Once again, at the beginning of college, the college made it difficult to get accommodations. The Assistant Dean of Students over disabilities was strict and held to the rules. The rules were strict but fair.” This meant that Sabrina would once again have to be retested to certify her need for accommodations. The college would not accept her testing from school or her 504 Assistance Plan with the accommodations it recommended Sabrina tells her side of the story, “Most students only need a discrepancy of 15 points to

be considered learning disabled. However, my IQ showed a 40 to 45 point spread between performance and verbal ability. Even with the 40 point discrepancy, I still scored in the average range on my tests. “So if I’m average, how am I learning disabled?” Sabrina hates her feeling about the institution. “To have the ability and know I can do things, but not be able to . . . it’s just so frustrating.” The accommodations were finally worked out, and Sabrina took the suggested 12-13 credits her first semester. “I had an okay GPA my freshman year, but I was bored. If I had taken one more class, I would have made much better grades.” Sabrina felt a deep need for stimulation and challenge.

Sabrina’s GPA fluctuated throughout her freshman and sophomore year. Some courses were more difficult than others and posed more challenges. Applied Statistics was one course that hurt her GPA. Even when she tried to get help from her professor, it didn’t work. The professor would tell her to think about the subject and come back. The book was not helpful either since, “the professor was the one who wrote the book, but the book wasn’t finished; so it didn’t have examples in it. It wasn’t complete when he taught the class; I was recopying his book on the board. It was frustrating to have only one source and have it not be a complete source.” Courses that followed these were harder but posed no problems for Sabrina. Her professors taught from the book and did a good job of teaching the subject. Sabrina remembers one math class that was particularly difficult. She would visit the professor twice a week. “I didn’t just do my homework the night before. I put a lot of time into this course, and I got a C. We had take-home exams, and I got a C. And it got to the point where, although the professor was brilliant, he had trouble putting everything into words that were understandable. Even other people in the

class were a little lost, but maybe they were accepting C's, but I was putting in all this time and I couldn't understand how I could still be getting a C." It was at this point that Sabrina settled for a math minor instead of a major. She describes this as ending the math chapter in her life. However, she wasn't satisfied totally with this decision. "I even, in the bookstore, pick up a Differential Equations book because I think it is fun, and I would love to do more math, but I didn't want to put myself in a learning environment that was going to be impossible."

Sabrina took an introductory biology course and received a B. This was considered a weed-out course according to Sabrina where a lot of people didn't do all that well. "Not that I can ever compare myself to everybody else because I know that's one thing where I frustrate myself as well. I have to put it in my own perspective." Her dyslexia made second year courses difficult for her. "I was taking the second year courses and especially with the zoology and botany, it's all phylogeny, which is these twelve letter names with random letter of phyla or organized in some sort of fashion. "It was very difficult because these vocabulary words were in some sort of format that I just couldn't see. I rewrote all the notes, not just the night before, progressively throughout the semester. I rewrote all the notes. I rewrote note cards. I copied everything. I studied. I put a ton of time into this. Out of 100, the lowest score was 18 out of 100 percent. I got a 21 and for having rewritten notes and studied and rewritten to get a 21 on the exam." Sabrina was exasperated with the course and begged her professor for insight into what she could do to pass the course. She was disappointed when the professor acted unconcerned. "It's your own problem. I withdrew from that course, and that was not easy." Sabrina was taking 15 credits that semester. Dropping the science class

dropped her hours to 11. This meant that she was therefore no longer a full time student. Sabrina had to apply for a medical withdrawal. She applied for an under-load which passed through the Committee on Degrees before the deadline.

The next big hurdle was her college's requirement to take courses within your major only at your college. In order to get permission to take courses at another college with a different professor and be allowed to take them during the summer meant she had to apply to the Committee on Degrees. "So I eventually took the course over the summer and I got B's or B pluses and that was fine. I put a lot of work in, but the one reason I was successful was because I had another professor that sat down with me. He's actually my advisor and I worked in his lab for biology. He sat down with me and said, 'Well let's see. How can I make this better for you? How can I help you?'" So this professor came up with an idea that Sabrina would have a word list that he would either give her or pre-approve. If she thought of more words, she could add them to the list of vocabulary words. Words that were similar were especially difficult for Sabrina. Having a word list beforehand helped her to be more successful. Words she was more likely to mix up were in alphabetical order. "Having that alphabetized word list, I could say, Oh, I see it, rather than having the memory retrieval problems." I find my current school better at this than most. When I went to the summer classes at a different college, I said, "Well, here's my accommodations," And he was, "Eh, OK, whatever." They would only do what was exactly on the list."

"Here even in Biology and Business and Marketing Department, they'll at least talk to me and help figure out other ways to help, especially if there's a particular subject that I might need help with. They'll sit down and brainstorm other ways to do it, whereas

the other college would only follow what the instructions said. The law says they have to do it, but they won't brainstorm like they do at my current college." She states that, "it seems now, things are finally falling into place." She is a junior this year, and she got an A on her first Organic Chemistry exam. Most of her classes are working well for her. The hardest class she has now is Bio-statistical Analysis. She is meeting with her professor every week and working hard. Her goal was to bring her GPA above a 3.0. She has accomplished that this semester since her GPA is now 3.05.

Sabrina alludes to the difficulty she has had adjusting to appropriate accommodations, different teaching styles and most of all the fact that "you have to be your own advocate . . . and you have to work for that." She hopes that once she gets to graduate school, professors will look at what she has accomplished and how well she has adjusted, particularly in her upper level classes. Sabrina would like to become a veterinarian. However, "what I really have to consider is the amount of years I would have to put in that." The easiest way she sees towards this goal is getting a Master's in Science. Sabrina has discovered she loves research and hopes she can find a master's program that is geared towards research, since veterinary school is very competitive. The harder piece for her will be keeping her GPA high enough to be competitive. Since she scored 1530 on her SAT's, if she does that well on her GRE's she will have a chance at being a contender for veterinary school. Sabrina is also looking at another option along the business line. "I'm tossing around an idea on finding a way to make my riding passion into an actual business." If she goes in this direction, she will look at the feasibility of an MBA. "I've had a professor already in the marketing department,

another one of those amazing professors that's helped me through school, who has already offered me recommendations to get into the MBA School here."

Sabrina worries about her master's program. She knows that usually it is better to do your master's at a different school, especially if she pursues science. "It's taken me so long to get things in place. It would be a lot of change, and I like the professors here, especially in Biology. The MBA School is not a problem, but for a Master of Science, they want you to get another perspective. I have to weigh that against knowing the institution and knowing the administration. This is a big key. I know the system. I know how things work here. I know the classes. I know the teaching style." She is also aware that at that level "you don't shop schools; you shop the professor you want to work with and what they are studying. However, for her it is complicated by the fact that the learning environment is more important than the study method. "It is so key for me. It is the difference between passing and failing. There's nothing in between . . . There's not . . . doing okay. I either achieve or I don't and it's so different and it's frustrating not to achieve. I would waste so much time and frustration and maybe not even come back to school if I had a horrible experience."

Obstacles Faced

Learning to read was an obstacle right at the beginning for Sabrina. She also feels that finding an elementary environment that allowed her to overcome her disability was important. "Not really overcome, you can never overcome a disability but getting past them and finding a way around the obstacles." Reading was definitely a particular obstacle Sabrina had to overcome. Sabrina also had difficulty telling time. Time on a

clock all looked the same to her. She recalls throwing fits when she had to do work in telling time.

Following her time in elementary school (“Argh!”), which was difficult “I had to find an environment in middle school that I could excel in.” This was partially worked out for Sabrina when she entered the G/T program. The G/T program was an enriching environment even though there were social hurdles at that stage. “I don’t remember middle school being as hard as everything else, but I could be blocking out things. My mom would be better able to tell.”

High school provided its own obstacles. The hardest was “getting them to recognize my disability despite my achievement but it’s because of the accommodations that leveled the playing field for me.” French also posed a problem for Sabrina. However, she handled this hurdle by way of using summer school to her advantage.

Sabrina also learned not to double up on things she knew would be difficult for her. In college she had to get used to the teaching environment more than any other adjustment. But in the end she prevailed. As an aside, Sabrina alluded to her deep need for her horse being in Williamsburg, even though horses take a lot of time. “Without the horse down here, I would be so stressed out.” Stress was a major obstacle for Sabrina, and her horse was the source of stress release. “That’s one big stress reliever. Some people go for a run, I go for a ride.” Another source of stress relief was the support of her mother and her boyfriend who she met at the end of her freshman year. “He was so supportive through all of this; a shoulder to cry on.” She also feels that her friendships were a source of support.

Another obstacle for Sabrina was her need to always study year round. She had to spread the workload out because of her time issues and special learning issues. “Time has always been an obstacle for Sabrina.”

Internal Resources/Strengths

Sabrina was asked to comment on the internal resources that kept her going through school. “I would think my perseverance . . . it has often been a disadvantage when I put so much pressure on myself, but with that drive, it’s hard to do things that are so easy for everybody else.” Sabrina and her mother both agree that her perseverance has been her greatest strength. “She learned through her trial to never take no for an answer.” Her mother indicates that even when Sabrina does not achieve her drive gets her through. Sabrina’s high IQ has served her well. Also the support Sabrina has received from her family and teachers has benefited her throughout her educational journey. Sabrina states it in the best words: “Obstacles fuel the challenge, the ability supports the disability, while the perseverance keeps it driving forward.”

Sabrina acknowledges her frustration especially “when I don’t achieve, but having that drive gets me through and around those things and helps me feed the ability to have the drive.” You see a circular pattern in this behavior. The obstacles fuel the challenge, the ability supports the disability, while the perseverance keeps it driving forward.

Her mother states that Sabrina has been inspiration to others and her peers recognize her strength and dedication. Sabrina believes that there were key professors that helped her along in her journey in college.

According to Sabrina's mother, key inhibitors were just about every encounter with a school official; once we convinced them of her disabilities then things would finally change. Her mother states, "Most educators think that accommodations give these kids an advantage. Nothing could be further from the truth, but they just don't get it."

Facilitators of Personal Development

Sabrina was asked who she would identify as important facilitators in her academic development. Sabrina did not hesitate in answering this question. Hands down it was her parents first. "I was very lucky that I had my parents there to get me tested so early." Sabrina was identified at age six, which helped in catching things early and remediating her severe disabilities early on. Her parents, particularly her mother, were advocating for her each step of the way. Sabrina acknowledges that regardless "it was still not easy, but I've had the advocates there." Sabrina states that hands down her parents have been the largest facilitator of her personal development. This is supported by her mothers' descriptions of the lengths they went to make sure that Sabrina's needs were met, both her strengths and weaknesses. Her mother states that the psychologist that tested Sabrina in elementary school "prepared us for what Sabrina's educational journey would look like." At each juncture of Sabrina's journey, her parents advocated for her when she could not advocate for herself. They fought for her to receive accommodations in middle school and went as far as to hire a professional advocate to restore accommodations that were taken from her when she was accepted into a very well known math and science magnet school.

Sabrina noted that the transition to college was hard partially due to losing the parental support she had: "And it was tough stepping into college when my mom, my

major advocate was told to step back.” This was where learning to be her own advocate was challenged. This was a huge change for Sabrina. She still asks her mother to proof things for her. Secondly, Sabrina feels there were key professors that helped her. “They were there to find ways to succeed and discuss them with me, and to provide other ways through difficult things.” Sabrina’s mother takes a different viewpoint from her daughter about teachers. “Teachers and professors are one of the biggest obstacles. They think she wants to take the easy road until they get to know her; then they become her biggest fans.”

Educational Programs/Provisions

Extended time on tests allowed Sabrina time to process things that by the nature of her disability would take more time. “It didn’t help me when I was told to manage my time better, such as ‘take the number of questions and divide by the amount of time you have.’ I’m a pretty good test taker as can be seen by my scores on the SAT.” She feels like this is a product of the interventions she received when she was younger. “I have had so much help and everything else, but test taking is something I’ve always been okay with. I’m not one that usually gets hung up on a problem.” She has found suggestions from people who were not specialists to be less than helpful. This is due to suggestions given that are not focused to her disabilities and have not been advantageous to her educational growth.

Sabrina’s use of the computer has been very important, especially since her disability impacts her hand writing, writing, and spelling. Some professors helped her through this; the ones who began developing word lists for her were extremely helpful.

“One huge hindrance has been proving that I am disabled; proving the fact that I don’t achieve without these accommodations in place.”

Sabrina lists educational provisions; however, her mother continues to focus on the lack of provisions for students with disabilities. She states, “Dyslexia is a very private condition. The victim is all alone. Everyone around her is successful and puts forth very little effort into being successful.” This coincides with Sabrina’s stating that her biggest hindrance is proving that she truly has a disability.

Physical activity has been critical for Sabrina as a release for frustration and an avenue for socialization. “Physical activity is an outlet for frustration number one. Sports are a chosen passion; especially horseback riding in particular.” Her mother feels that Sabrina’s involvement in sports teams and learning how to lose with the team has made it easier to deal with losing as an individual. Sabrina works very hard to succeed. “She puts unprecedented effort to gain the result she desires.” Her parents learned very early that it was important to feed Sabrina’s strengths while they nurtured her weaknesses. She had to have special help inside and outside of school.”

Crystallizing Experiences

When asked if she had experienced any crystallizing experiences, Sabrina responded that most of her crystallizing moments have occurred since she came to college. In the past couple of semesters, she feels like things have fallen into place for her. When her professor suggested a word list it was important. He said, “Hey, we’ll try it.” Then Sabrina experienced the success that a small accommodation could make for her. She is amazed over the small things, even in elementary school that helped her; like hand motions to learn the difference between b and d. She knows there have been little

things like that; however, “I think mostly it’s just been making that transition from being more independent and being my own advocate and knowing that there are other ways around things.” She has also been helped tremendously by those professors who took the time to help her and brainstorm how she could best learn the material that she needed to be successful in her classes.

Sabrina’s mother uses a scenario from her life to demonstrate how problematic her disabilities were, even in comparison to experiencing physical trauma. “Sabrina participated with her parents in a major battle to have her accommodations put in place. One day she fell off her horse and broke both of her arms. Every one around her was sympathetic as she walked around with two casts; however, the broken arms were nothing compared to the personal experience she had with her disabilities.” Sabrina states that her transition from being more independent and becoming her own advocate was definitely a crystallizing experience for her. The lengths she had to go to in order to circumvent her disability taught her that there is more than one way around things.

Environments and Social Contexts

Sabrina was asked to comment on which environments or social contexts had proven most conducive for her learning. “I find that really scary room at school does not help.” Sabrina was referring to the assistive technologies lab for students with disabilities. “It buzzes. I need to be somewhere, as far as studying goes, which is not too quiet.” She states that “almost the more noise, the better.” Sabrina finds quiet more distracting than a little noise. “At a coffee shop, it’s perfect because, rather than focusing on the small voices that do happen, there’s so much noise that I just stare at my paper and work.”

In order to do well on tests, Sabrina needs extended time. “When I am put in a separate room, it has helped too.” It also helps if she can be in the same room consistently. She feels like she gets used to the environment and that helps her a lot. “Not that I would focus on people, but if I get used to that habit of being in the same room, it is almost as the byproduct of having extended time on the test.” She also is uncomfortable with too many people at her table. “I feel a little self-conscious when I have my word list right next to me. I am afraid other people might look over and think that I am cheating, but I have gotten past this a little.” She is now able to compartmentalize this accommodation a little better. “This is my accommodation. I don’t need to be ashamed. I get it!”

Sabrina addressed social contexts at her institution. She felt like the professors at her school worked with her and would go above and beyond what they had been asked. She also enjoys a challenge, so special classes or classes she was more interested in were better for her. Classroom size has also been important to Sabrina. She prefers sitting in the second row in the middle. Sabrina believes that classes that mandate participation were extremely helpful. “I’ve gotten past that fear of saying something stupid, especially in a class full of graduate students. They’re behind me. I can’t see them.”

Impact of Strengths and Weaknesses

Sabrina was lastly asked to think about her entire educational journey and determine the times that were most impacted by her strengths and weaknesses. “The courses that required a tremendous amount of letter discrimination, like zoology and botany, test me against my greatest weakness. Reading and telling time have also been hard for me; however, it’s been those courses that have really pushed in on my memory.”

Word processing has been a help with her weakness in dyslexia. Those professors that used Power Point and gave her the note pages from the slides helped her overcome her weaknesses. She had one professor that would actually fill in the blank lines for her Power Point pages, as opposed to the rest of the class getting blank ones.

Sabrina's strengths came out in her math courses in high school. "You sit next to those nerdy guys in the math courses that always know what's going on, but when I have beaten them on tests, I was so proud that this little blonde girl beats them." She did well in those classes and she was proud of the fact that those students she felt were smarter were asking her how she got the answers. Some of her professors helped in this area too. She took Evolutionary Genetics, a very hard class, and she received a B. "The professor told me later that I understood the material better than 90 percent of the class. Point being, he knew I wasn't just doing the work, that I was understanding the material." Sabrina feels like her strengths come together in the quantitative classes. "I love things that I can do that are quantitative and mathematical and involve reasoning and putting the whole picture together; a synthesis of everything. These are the courses where I have been able to excel in; the ones that require a lot of work." This is what made the science and math magnet school in high school a terrific environment for Sabrina. "To be with kids that are more similar to you and they're also always off reading a book. All these kids were there together in one room." This environment was challenging and more like college than high school. She got the feeling that everyone there was working hard. "There were some kids that were so smart they had social problems, but because of the environment those kids were accepted. There was no 'geek crowd' because we were all

geeks.” This made the transition to college easier. She credits the magnet school for getting her prepared for college.

Sabrina’s mother notes: “Strengths and weaknesses of Sabrina are apparent every day. One compensates for the other. Dyslexics are quite intelligent. This is why they are overlooked so often. Most become average students.” Sabrina’s parents set up circumstances that allowed her to succeed. Sabrina’s desire to conquer difficulties and her perseverance took advantage of the opportunities her parents carved out for her. She pressed through learning to read when letter discrimination was her greatest weakness. Telling time was hard but pushed her to increase her capacity for memory. Sabrina’s ability to take pride in classes based on her understanding of the content instead of just focusing on her grades served her well across her journey.

Sabrina has yet another hurdle to jump through after she graduates this year; however, it is an exciting hurdle, and one that she willingly takes. Her mother shares the implications: “Sabrina is yet faced with this battle once more as her mother describes; Sabrina has been accepted to Veterinary School at Virginia Tech. We are facing the same accommodations situation as Sabrina enters Veterinary School. We are preparing paperwork and sending emails to the special education office.” Sabrina and her mother both emphasize the importance of the right environment for Sabrina. It can make the difference between passing and failing. It is difficult to adjust to different teaching styles, different environments, and professors that believe that accommodations are not necessary for some students. Sabrina had two options pending as she headed to graduation. The easy option was to stay where she was, with an environment that she already knew, in a subject she felt she could tackle. The harder option was to attempt

Veterinary School where everything would be new and she would have to retrace the steps of getting to know the system and establishing once again her need for accommodations. Sabrina has made the choice to attend Veterinary School.

*Case Study #5 Heather**Context*

Heather was the last student interviewed for the researcher's study, which focused on internal and external factors that had impacted both negatively and positively the academic journey of twice exceptional students. She had graduated from the selective institution of higher learning in August of 2005 and was employed as a Latin Teacher in a nearby county soon after. The researcher had attempted to interview Heather on two other occasions, but the time and the place could not be specifically set.

It was Sunday morning at 10:00 a.m. at Heather's parent's home, when the researcher finally had the opportunity to sit down and gather Heather's insights and answers to the eight questions that defined the problem that the researcher was studying. Heather had volunteered for the interview following her completion of the initial survey from the Dean of Student's Office. Heather was cooperative and answered all the questions with great insight and depth, as evidenced by the length of the transcript. She was extremely articulate and voiced a desire to communicate her perspective. The researcher settled into a nearby chair, and Heather settled into a sofa across from her and comfortably began to share her story.

Academic Journey

Elementary

The researcher explained to Heather that the first question was broad and would be related to the seven questions that followed. "I would like for you to reconstruct your academic journey through elementary, middle school, high school, and college.

Reconstruct your journey, as you see it, and how you managed academically across that journey.” Heather stated that the journey had been interesting. She was identified gifted at a very young age. Her mother pushed for her to be identified at age four. Heather states, “Even though I was identified as gifted, it was very clear that I was deficient in specific areas, especially math. I have a visual problem because I can’t see out of my right eye and so, in any math class I took I could not line up the numbers correctly and I just did not interpret them correctly in any way shape or form.” Needless to say Heather struggled so much in math that she recounts “absolutely hating it and not really tuning into the concepts at all.” Her strength and giftedness were in her linguistic abilities. Her mother verifies Heather’s account: “Heather was reading by five and a half. She memorized books before reading and pretended to read. She also drew a lot. Her parents encouraged her in puzzle making and Lego’s.” Her early precocity was noticed even at eighteen months old. She watched the Nutcracker straight through at this early age.

Heather was a voracious and astute reader. She remembers having a fifth grade teacher who was not very effective in the classroom. He kept things on a simple level and constantly had the students reading on their own or doing oral recitation. She remembers approaching the teacher to ask him why they weren’t defining and analyzing the characters in the books they were reading. He ended up allowing Heather to do her own interpretation of the book they were reading. She proved to be very creative with the presentation, actually imitating the accents that she perceived the characters spoke with. Her classmates were impressed by her presentation. “That was sort of a turn around point for me. Finally there was some recognition from my peers that I had this

talent. I felt like my teachers had always realized that I had a specific talent, but my peers didn't always notice it."

Heather was extremely introverted in elementary school and had few friends. Up to this time, Heather did not recognize her own giftedness, even though her parents thought she was gifted, and most of her teachers concurred. The gifted program at her school was less than stellar. It was more of an enrichment program where she remembered being left on her own to research topics she was interested in. "It was entirely self-directed" and little instruction or direction was provided that would have enhanced her abilities. She didn't find these times very challenging and thought of it mostly as free time for students who liked words. Heather stated that there was an immense diversity of abilities among the students in the program. "It really felt like they had just thrown in every student who managed to get decent grades or who had demonstrated ability, but not necessarily students who showed a profound gift in anything." Heather found this program somewhat frustrating and never felt like the program benefited her academically.

Heather's mother speaks to this issue when she states, "Elementary school was a bland succession of mediocre teachers and limited success in her school district. Her first academic triumph came with learning Latin while we were in Cambridge, England during her sixth grade year. She loved it and kept progressing to more difficult challenges such that she completed half a high school program in three months."

Middle School

Middle school posed both challenges and adventures. She went to two different schools during this time. She went to a small private school and later to a larger local

private school. Heather saw this as both good and bad. “You didn’t have much choice in terms of teachers or people that you could possibly become friends with, but this school was where I learned my love of language, because I had a terrific French teacher who was very inspirational.” Heather’s mother had been homeschooling her in Latin, but this was her first experience with a living language. “My French teacher was thrilled with my Latin background;” even though Heather admitted she was kind of annoying in her class; always raising her hand and interjecting information. “When I was in her French class I really excelled. She was the first teacher I had who really gave me the sense that I was really academically talented. She once told me that I could do anything I put my mind to. This sort of stuck with me; that I was good with languages and that I wanted to be as passionate as my teacher was.” Heather felt like this was the most beneficial experience at the small private school. For the most part, she felt like most of her English teachers were not particularly prepared or steeped in their subject. In fact, she admits to annoying her teachers purposely. “To be honest, I antagonized them a lot because I felt like I knew more than they did.” Heather constantly challenged her teachers concerning the low level of reading that was required of students. She would ask the teachers things like, “Why are we reading *Les Miserable*’s in an abridged form? It’s terrific the way it was originally written.” Her teachers asked her how she knew the difference. She responded, “Well, I read it twice.” The teachers would be amazed; however, “I realize now that most of the time I was just being confrontational with the teachers.”

In eighth grade, Heather, moved to another private school in her home town. She remembers having an English teacher there who liked her. “He thought that I was very talented.” Even though her English teachers liked her, she describes her relationship with

them as confrontational. “They were constantly doing battle with me, because they wanted to focus on the fact that I was extremely disorganized; which was very true. I was excessively disorganized.” This focus on her weaknesses was very frustrating for Heather. She did a project in eighth grade on *War and Peace*. When she did not follow the instructions correctly on where to put the report on a poster board she was penalized. Even though her peers were doing reports on much lower level books, they made better grades because they could do the process. “It was one of those things where I could not get the process down. But, I felt like I should have gotten more credit for having the higher level content and understanding the book.” Heather’s disabilities produced difficulty following directions or procedures. “I will admit that process is still a bit of a challenge for me. I’ve had to learn twenty billion ways of trying to overcome this. And the funny thing is that technically, I didn’t know at the time that I would have qualified as having a learning disability with ADD all by itself.” She knew that her dyscalculia was a disability, and when she took the WISC test there was a strong discrepancy between her performance score and her verbal performance, one method for identifying learning disabilities. She voices some dissonance regarding this time in her life. “It’s interesting to me, looking back now at this, because there are so many things that make sense when I go back and I look at them through the filter of everything that I found out when I was sixteen.”

Once Heather had more information and maturity, it changed the way she viewed many of the experiences of her younger years. It has also impacted her in her current role as a teacher. She realizes how unfortunate it was for those teachers who totally focused on discipline and organization; however, she states she would be lying if she didn’t admit

that she would love for her students to be more organized than they are; she believes it would improve their performance if they were more organized; however, her gifted students that are disorganized remind her of herself at that age. “I actually love their messy and disorganized ways sometimes.” Her own experiences in elementary and particularly middle school have produced empathy for these students. “I have empathy and it’s also a case of if they are able to rise above their disorganization and give me good work, then I’m not going to go after them and insist with a hatchet in my hand that they have to do things my way.” This has created some conflict with her colleagues and how they think she should be addressing this addressing this issue.

Heather backtracks at this time and tells the story of when she placed into Latin II in the eighth grade. She was in a very small class with three other boys that were all much older than she was. “That was a challenging experience in and of itself; just being around older boys, who were pretty much jerks all the time. It was just the four of us and the nun liked me a lot and encouraged me a lot.” Heather found herself in direct competition with one of the brightest kids in the class. He was very smart with a photographic memory; however, Heather managed to score the same on all of the tests as he did. No matter what Heather did, she could not raise her score above his; however, when they took the National Latin exam, Heather scored gold on the exam. She finally beat her competitor. “This made me stop having to have a competition with him.”

During her eighth grade year she had a creative math teacher that created a win-win situation for her and her disability in math. “He had a policy he called Ground Hog Day.” He made the students constantly re-take the math test until they would score an 80 or above on it. This was effective for Heather, since she had difficulty with the

computational portion of mathematics. “He would take the time to sit with me after school. He did this with numerous of students. And it was great for me, because breaking it down on a line-by-line level was really what I needed. I hadn’t realized, up until this point, that this was where all of my computational problems were coming from.” Heather states that these two terrific teachers created a “Gestalt” for her.

Nevertheless, Heather withdrew from school at the end of her sophomore year to attend the public school. She was rejected for National Honor Society because she did crossword puzzles in her other classes during the lecture. “They said that I couldn’t be considered for the National Honor Society because, though I had good grades, I was disrespectful to the teachers because I did crossword puzzles while in class-which was something I did when I was bored.” The researcher probed a little deeper regarding this battle Heather had with the school and some of her teachers. “Now in your battles with your teachers, were you just trying to find a place for yourself or were you trying to find position?” Heather answered,

“Yes and No; If I were to be completely honest, I would have to say that part of it was just feeling like I didn’t really belong there to a certain degree. I felt like there were so many others who didn’t care, who were constantly kowtowing to the teacher and grade grubbing all the time. I sort of wanted to make my voice heard, but not be like them in any way shape or form. I did a good job of it I guess, but not necessarily in a good way. I also found that I didn’t understand why my teachers didn’t seem to want to know more. And I didn’t understand why they weren’t doing a

whole lot of reading on their own. They wouldn't come in talking about other books that they'd been reading."

Heather's deep desire for learning and reading created dissonance for her when she realized that her teachers were less motivated for intellectual stimulation than she was. She would come to school wanting to talk in-depth about the books she was reading at home. She would tell them the titles she was reading, and they would always frown and tell her she didn't need to read those until she was older. Heather states that she never got over the feeling of needing to challenge authority until she got to college where "I knew that all of my professors were legitimately intelligent."

According to Heather's mother, she became interested in theatre in the 8th grade through a "performance at her private school, which has continued to be a passion to this day. Each year through college she has performed in or directed at least one production each year. While this part of the journey involves the arts, it kept her alive to be able to handle the academics of school which she found more difficult as years went by and more stultifying."

High School

Heather went to the local public high school. She ended up graduating early because she had taken classes at the local college. Her junior and senior years were sprinkled with a few good teachers. She specifically remembers a great chemistry teacher that made a difference for her. "Strangely, even though I was never good at math, and chemistry really is a whole lot about math, I ended up enjoying the subject because of how good the teacher was. She really believed in my ability to do things, and she wound up writing one of my college recommendations." Heather believes this

worked to her benefit “because this particular teacher could speak to her strengths as well as the challenges she had to overcome.” Heather’s mother mentions this as well. “Her chemistry class and teacher was an exception to this pattern. Even her work in Latin had declined such that her second AP exam yielded only a 3. This along with other signs suggested she was experiencing some form of cognitive decline during this period.”

That same year, Heather was diagnosed with depression. This particular teacher became the one she could confide in and share all the difficulties that were pressing on her personal and academic life. Heather was diagnosed with depression, ADD, learning disabilities, and a brain tumor at sixteen. “It was something that I really didn’t share with that many of my teachers, because it really was painful and I really only shared with certain teachers. I didn’t want to share it with some, because I knew it would adversely affect me in their classes.” This was a very difficult time for Heather in her personal life. It also had an impact on her intellectual studies due to an inability to think in a linear way. “My brain was just sort of going in every direction all of a sudden.” Not only was Heather’s physical life deteriorating, but she was facing challenges in her personal life; her grandmother was dying during this time. “It was just a dark period in my life.” Her Latin classes were independent study and she found herself increasingly having problems forcing herself to do independent study. Heather was at a level in Latin that made it difficult for the high school to resource. She was also accelerated in her English classes. Her AP English teacher was not engaging and had conflict with Heather throughout the year. Heather had already taken the AP Language and Composition exam, based on a three week summer calls ten months earlier, and scored a 5. The Advanced Placement class was not as challenging because of her personal studies outside of the classroom.

Heather also had conflict with this teacher because her physical illnesses, which required Heather to take medication, which had impacted her ability to concentrate. “I would have to come to classes feeling very doped up and not really able to concentrate on anything because of the medication.”

Part of the conflict was exacerbated when Heather chose to perform a monologue from *Who's Afraid of Virginia Woolf?* She chose this selection for the beginning of her presentation about an author she had chosen for her class on American authors; Edward Albee. “I started to do it and I got so shaky from the medication that I couldn't go on. I had to ask if I could do it another day.” The teacher agreed but stated that she would take 20 point off the presentation. Heather could not physically go on with the presentation. Her parents had to advocate for her at this time and under pressure the teacher reinstated the 20 points. Heather struggled to understand the duplicity in thought that the teacher displayed. “When I finally gave my presentation, she had given me a 100% for the actual content and had great comments. But she still somehow thought it was fair to give me 80%. So, it was things like this that made me feel that certain teachers really need to be more flexible.”

Although Heather was just sixteen when all this occurred, it has impacted her understanding of the students she works with now. “I'm actually really thankful that I have a lot of students that I can work with who have similar problems to the problems I had. I always am very grateful that I'm in a position to help them as much as I can.” Heather went on to graduate from high school a semester early. By the time she graduated, she was tired of the games she felt the teachers played. “I just wanted to be out of high school and get all of that crap over with because I was really sick of it. Especially

because I was spending so much of my time doing college courses and AP courses over the summer and I didn't feel as if I were learning anything in any of my classes in high school." Interestingly, Heather never scored above a three on AP classes that she was formally enrolled in, except for Latin. She was not particularly thrilled with AP Government or AP US History and did not score above a 3 on these courses. The content was not exciting and most of her other gifted peers did not do any better. The researcher asked if the reason was bad teaching. "It was partially the teacher; it was also partially because of the block schedule where you had the AP exam in May and you had finished the class in December." This left a lot of down time between when the subject was taught and when it was tested; however, Heather admits that these two subjects were dry and boring to her. The AP exam for Latin and English were invigorating to her. "I was just so impassioned about both of them." The researcher asked Heather if this changed for her later. She stated, "Unfortunately, not in the topics of American history or government; however, I came to love and appreciate Roman history and Asian History, but this was in college."

One piece that Heather did not mention was brought up by her mother. "As a high school junior she attended the Governor's School Residential Program in Latin, which was a very important event as she had switched schools that year, been diagnosed with ADD and with clinical depression. Yet, she succeeded in this highly competitive context, had the lead play performed all in Latin, and made very strong friends."

College

When Heather began college, her family decided it was time to do something about the tumor she was diagnosed with at sixteen. She was scheduled to receive

radiation treatment over her Christmas break. The first semester of her freshman year was great except for Greek 101. “Part of my biggest challenge with the Greek language was the fact that I could not visually recognize a gamma from a lambda. It was the weirdest thing because I had sort of assumed my dyscalculia only really had to do with math, but apparently it goes with any other symbol system, period.” Her professor gave her a “C” in Greek. She felt like it was a gift. “My professor knew about everything I was going through for the most part. I wound up telling all of my classics professors, just because I felt like they knew me the best.” This ended up being a very positive move on Heather’s part. Her professors were very supportive of her.

She spent Christmas break at John’s Hopkins getting radiation. “They say that you’re supposed to be able to get over the effects of the radiation within three months. For me, it really took about a year to maybe a year and a half.” Heather experienced a lot of difficulty after the radiation. She needed 14-15 hours of sleep a day. At first she could not be awake for more than 3-4 hours a day. This created some conflict between Heather and her roommate. “She was bothered by the fact that I was constantly in bed and I don’t think she really understood, at the time, exactly how serious it was.” Heather was having a negative reaction to the radiation and ended up having to take a reduced load the next semester. She had to make up an incomplete over the summer. Heather’s mother confirms this account, stating that “Heather survived this first year with great difficulty, mostly due to her being diagnosed with a brain tumor which was treated in January of this year. She continued in school, feeling very tired and ill. Classes took a backseat to her physical problems but she persisted and finished the semester.”

Heather was beginning to feel like she would never be academically successful again, “I felt like much of what I had learned had sort of floated out of my brain during the radiation process. I didn’t feel “smart” when I came back for the spring semester.” It was a struggle getting permission from the Dean of Student’s office to get a reduced load. At this time, Heather was also diagnosed with fibromyalgia. “They think it was just because I was sleeping so much and I was lying on my back and irritating my back or maybe it irritated my muscles.” This created excruciating pain for Heather. If she wasn’t asleep, she was in tremendous pain. Even in her sleep she would wake up with excruciating episodes and end up waking up her roommate. This was a confusing time for Heather. These problems continued into the first semester of her sophomore year. Heather’s mother states, “Her sophomore year was a disaster, having to take medical leave after finding out she was failing courses due to absence. Her dormitory experience was untenable, living in a small space with two other roommates. She continued to experience great fatigue, lethargy, and a general sense of being lost.”

She wasn’t sure what to do or how to resolve these ongoing health issues that continued to impact her progress in college. Outlets that emerged for Heather were her involvement in theatrical activities, socializing, and sleeping. As you can imagine, she found herself going less and less to class and sleeping more and more. Then during the first semester of her sophomore year, September 11th happened. “It was big for everybody and it was sort of the day that I realized that I was in so much pain and I was so depressed that I just didn’t know if I could handle it. I tried to pretend that I could.” When Thanksgiving rolled around, Heather was failing all of her classes. She could not concentrate enough on anything. She still wanted to be an English major because of her

deep love for English. She was defiant about her mother's wishes for her to be a Latin teacher; she did not want to be a Latin teacher. In an effort to prove that she could remain an English major, she spent most of her time that semester in the English department. "I found I could not construct a paper in the state of mind that I was in. I don't know if it entirely had to do with the radiation or the depression or the pain. You could never really tease those things out from one another."

The conundrum her disabilities and her physical condition created for her was confusing. "I was ADD and I had been put on Ritalin. When I was still technically on Ritalin, I still could not focus on anything. My professors were aware of my extenuating circumstances, but the Dean of Student's Office ended up being very unhelpful during this time." Heather had no more emotional energy to give to the struggle. She ended up taking withdrawals that semester. The following semester, things were not much better. Heather ended up being involved in some extra-curricular things on campus while working in a local quilt store to keep occupied. "I was so depressed from having to quit school, constantly being around my parents, and thinking about why I wasn't able to do more and sally forth." After two more months of continuing to feel sorry for herself, she had applied for a job at a quilt store. She worked there for a while and then applied to go back for what was supposed to be her junior year. She returned with a reduced load, but her organizational problems came to the forefront and almost ended her college career.

Heather found that she had difficulty organizing papers. She couldn't even figure out how to go about starting to write a paper. She had written many papers in high school and college on her own. Her love to talk about subjects led her to voluntarily write papers so that she could talk about the subject. "So I would write random essays all

the time, but suddenly writing was a painful process for me. I couldn't really force myself to get words out there." Heather did fine in class and fine with the assigned readings; however, when it came time to write, she experienced horrific problems. It was at this time that she switched her major to Latin, which did not require as many written papers. She continued in a Shakespeare class that semester. Heather loved Shakespeare. Shakespeare was always magical to her. "It was horrible because I found myself with these great ideas for papers that I wanted to do and I then got as far as the first three sentences and I would just go completely blank. I wound up not being able to turn in any papers to that professor." Heather believes if she could have taken the final exam in this class she would have ended up with a B, which is what she had at mid-term; however, she came late on the wrong day for the exam and ended up with an F in the class. "I think that was the year that they changed the final exam schedule, so that they weren't at the same time and date as the class normally was, which is what they did before." This experience encouraged Heather to develop a system of writing down every little detail.

When you leave the college on a medical withdrawal, you sign a contract stating that these are the things that you will do to keep up with your health. One of the things required was she had to see a therapist, because she had been diagnosed with depression. This created a problem for Heather because she couldn't get appointments at the counseling center. She ended up having one appointment at the counseling center during that semester; however, when it came time for her mid-year review, someone called her to let her know she was out of compliance with the contract that she had signed. "You haven't seen your therapist anywhere near enough and you failed one of your classes, so you're going to have to be kicked out." Heather found the person extremely rude during

their conversation and states that at one point the person started screaming at her. The person was very unprofessional. “I was still rather depressed at the time and I unfortunately wound up crying in her office which is something I deeply, deeply regret. It’s funny that all of these memories are still so strong for me.”

Once again Heather was pushed out on a medical withdrawal, but her professors that she already knew were very supportive of her. They offered her the opportunity to sit in on their classes. They told her they still appreciated her presence. “I mean they were very nice. I mean they didn’t say that I still had to go to classes even though I wasn’t getting a grade, but they were supportive. They told her that if she wanted to come to feel free. “Even though, technically I wasn’t supposed to be involved in anything on campus while on medical withdrawal. That was the stipulation; however, my classics professors were very kind about that. I wound up taking those classes even though I didn’t do anything in them. I took them to stay active.” This opportunity allowed Heather to stay active in terms of the discussions and translations because she realized while on medical withdrawal that if you don’t use it, you lose it when it comes to language. She knew that at the level of Latin she had achieved, she would find herself a few steps backwards if she wasn’t engaged in classes where she was studying it. “Once you reach a certain level, no matter how much independent study you do, you really can’t get the same kind of intellectual thrill as when you are engaged with other people in terms of talking with them about it.”

Somewhere between Heather’s second sophomore year and her first junior year she derived a different social group due to her activities with the classics club. “It was helpful because it gave me a very clear peer group that I was part of.” Heather got

involved in a play production. She directed the play, *The Frogs*, for her class. “It was sort of my first big major undertaking in a leadership role and it was the one thing that I did where I felt confident about myself.” When Heather came back the following year, she asked her professors in the classics department if she could do the same thing but on a larger scale. She wanted to do it as a real theatrical performance, rather than a class project. She found support for this project, but she underestimated the amount of money that would have been allocated for the adventure. She asked for the pitiful sum of \$120, I found out later they would have given me more.” She managed the play on the slim budget, which included making the sets and costumes and everything. Heather states that she did a lot of it all by herself. This became a positive experience for her. Her friends pitched in and helped. Heather cast a lot of her friends in the play, because not many people showed up for the auditions. Many students were not familiar with the play and this may have made the turn out low, she opines,

“I hadn’t really entirely felt well at all since the radiation. It goes back about that far, because even though I was involved in theatre things that I enjoyed, it wasn’t until I was taking an active role in teaching other people to a certain extent – which is really what directing is-especially at that level, when you’re working with people who either don’t know much about theatre or don’t know much about classics. It was really an incredible experience for me from that direction”

Heather went on to direct another play which was much more ambitious. Suddenly, she went from having a cast of eight characters and five prostitutes to having about 35

characters. That was rather challenging because every major rehearsal was like teaching a class. “At least I had the forethought to ask for the right amount of money. They ended up making \$520 dollars on the play. I built up a fund and it is now still going on at the college.” This was a dream come true for Heather. Combining the theatre and classics studies was the thing that cemented her feeling confident about her abilities again. This was how Heather spent her fall semester of her final academic year in college. “My grades were decent, not terrific; I had B’s pretty much across the board, and I was “OK” with that as long as I felt I was doing something that mattered to me.” This was a strong catalyst for Heather. As long as she was working on the play, she felt like she had something to work towards. This improved her quality of work because she had other things that were on a higher level for her. “I felt as if I had sort of finished my ‘magnum opus’ for my college career, and I just didn’t want to do anything else. This was Heather’s fifth year in college at this point (technically fourth year if the medical withdrawal isn’t counted). She had never really quit being at school. “I sort of was always there, doing things.”

She began to experience more chronic pain. “I started having problems with my back locking up, and I would get a complete numbness in my left shoulder.” Her neurologist thought that it might be MS and they ordered a spinal tap. “I had all kinds of different, what I thought of as ‘torture tests,’ where they basically ‘zap’ you with medium voltage electric shocks to see how your pain receptors and nerves are working and to see if they’re functioning correctly.” Heather had this particular test four times.

Heather spent a lot of her time just trying to focus on getting through the pain and somehow managing to survive. I don’t know exactly how I survived that year because

the pain that I felt right then was far worse than anything I had felt before.” She wound up skipping classes in which she was struggling with her understanding, because she didn’t want to be in a class where she didn’t know what was going on and be in pain at the same time. This was in her Survey Geology class. “If I were in my Latin class, all of my professors in the classics department knew what was going on with me and so if I left for 20 minutes to take a pain pill and wait for it to kick in; they would be fine with it.” Heather didn’t have any friends in the other classes. She ended up not going to the geology class and had to make up the science requirement over the summer with a really nice professor.

“I was still having some health problems over the summer, but not as many and I was able to finally get through it and in August I was finally officially graduated.” Heather regrets that she wasn’t able to bring her 2.9 GPA up to a 3.0 GPA. “It was a weird time.”

Obstacles Faced

Heather’s mother provides a more precise documentation of Heather’s physical and learning problems. “Her obstacles were in two areas: physical problems such as the hemangioma that limited vision and hearing and promoted social adjustment problems and the later development of fibromyalgia and the tumor which brought about pain in her joints and severe fatigue as a result of radiation. In the area of learning, her compromised vision and hearing impacted her ability to visually and auditorially process information in classrooms. Moreover, her ADD condition further impeded her academic ability by making her more inattentive and distractible than would be desirable in classroom settings from the beginning, although it remained undiagnosed until she was sixteen.”

The researcher asked Heather to recount specifically the obstacles she felt she had faced over her academic journey. Heather stated, “Emotional depression; circumstances like when my grandmother died, and just in terms of college, and I was constantly in battle with the Dean of Student’s Office (DOS).” Heather had other friends who had hostile experiences with the Dean of Student’s Office, no matter their disability or what medical issue they had. The researcher asked Heather why this was a problem. “Well, I think part of what’s wrong there is that there’s very much an attitude that if you have a medical issue that prevents you from making it on your own, you just don’t belong at this school.” The researcher followed up again. So, there’s no real compassion or sympathetic position to people who need accommodations and help? Heather answered, “Not really.” Heather believes that there are those in the office who are compassionate, but they don’t really do anything. “They give you a letter to hand out to your professors that says, ‘Blah, blah, blah has a medical condition which requires her to have whatever accommodations that you agreed on at the beginning of the year.’” Heather was allowed fifty percent more time on exams and quizzes. She was also allowed to use audio recording, because she was also having problems with auditory processing because of the tumor and occasionally she would miss things in class. She was allowed record and she was allowed to ask for notes from the professor. Heather relates that even when you hand these letters to your professors; it doesn’t guarantee that you will get the things they should provide you with. The DOS office made it completely the responsibility of the students, regardless of the attitude of the professor.

The researcher was trying to make sense out of the DOS. “I thought you said there was the Dean of Students and then there was the Dean of Disability?” Heather tried

to clarify this for the researcher. “Yes, the Dean of Disabilities; they both work out of the same office. “And the woman who’s the Dean of the Disability Services would just draw up these letters and you would pick them up in the office and deliver them. And if your professors had any questions, they’re supposed to contact her.” Heather’s experience with the DOS office was frustrating since they were the ones that kicked her out for a semester and put her on academic probation her junior year without reason. The office had incorrect information in Heather’s file related to her GPA and the total credits she had earned. She had to appeal to the Dean of Student’s Office (DOS) five times to get the information straight. From Heather’s perspective, the DOS was not acting in the best interest of the students. “They’re the ones where you had to apply with all the ridiculous amounts of paperwork for the medical withdrawals. And then every time I had to take a part-time class, I had to apply to them. It got to be ridiculous, the amount of time I was spending in that office.” The researcher asked Heather if the office was advocacy-oriented at all. Heather replied, “It’s more the relationship of you come to us if you have a problem and we won’t do much for you. Here, we’ll give you a piece of paper and then if you have problems, your professors can tell us and you can make appointment to see us if you want, but they never did anything to help you solve your problem.” Heather referred to the time when she was having difficulty writing. She appealed to the office for help; however, from her viewpoint, the office made her responsible for her own sickness. She quotes them as saying, “Well, then that’s your fault. You really don’t belong here if you can’t write papers.” One of my classics professors called the Dean of Students to appeal the decision to kick her out second semester. He told me that the Dean had dug her heels in and had said some very unprofessional things to him on the phone.

Internal Resources/Strengths

Heather believes that one of her greatest resources is her personal history. “I feel like because I have been through so much, I do have a stronger sense of perseverance than most people, because of all these things I’ve described. “While the chronic pain problems really haven’t gone away for me and depression problems are never really going to go away, I still have this sense that I can survive anything at this point. And also that there are things beyond what one person tells you, what they say you can and can’t do and beyond what your body tells what you can and can’t do. The life of the mind is a terrific thing.” Heather’s perseverance has served her well throughout all the difficulties she has weathered throughout her life. She believes she is a better person for having had to go through them. Heather’s mother states that “Heather has a strong sense of persistence and adaptability to new circumstances that has stood her well in learning situations. Under very difficult circumstances, I have never seen her give up or ask for an out that was not appropriate. She has persisted in her academics despite many setbacks. While her self-esteem has not been high in many areas, she has maintained a view of herself as a gifted person which I think has helped sustain her through some of these situations.”

Heather also refers frequently to her parents as a great resource for her. Her parents encouraged her to read early, they traveled a great deal with her, and exposed her to numerous cultures, allowed her to learn different and new types of things, and took her to different forms of the arts all the time. “I found that the arts are one thing that I feel like I have inside of me. Somewhere burning inside of me there is a little shrine to the arts. I sometimes go back and think about that when I’m at my lowest point.” Heather

enjoys pulling out Shakespeare to recite a monologue or sitting down to play the piano. These moments are very precious and calming for Heather. In these moments she thinks of all she has been through. "I guess it's the kind of thing in life where once you have battled through many battles you know the battles can be won." Heather is enamored by the human condition and what humans are able to do.

According to Heather's mother, "Inhibitors for Heather have been people who saw her as smart but not capable due to laziness."

Facilitators of Personal Development

The researcher asked Heather who she would identify as an important facilitator or inhibitor of her development. "My parents, definitely my parents were great facilitators." Heather's parents were wonderful advocates for her at every turn of her educational journey. They made sure that she was doing as much as she possibly could. "My parents strongly encouraged me to go to different summer programs and finish everything that I needed to." This was important for Heather in the early stages of her life. She reflects for a moment and states, "I don't really know exactly how things would have turned out for me if I had a different set of parents." Heather credits her parents with being very understanding about her condition and credits them with helping her see that there were things beyond the here and now; also seeing other cultures broadened Heather's perspective of life and allowed her to see other ways of living and thinking. Heather's parents taught her much about literature and the arts. "I can't possibly think of anyone else."

Heather turned to the inhibitor part of the question. "I would say that I have been the greatest inhibitor to my own success. I have struggled against a lot of things and

desperately wanted not to have to have these things happening to me. I was trying to be in denial about some problems, unfortunately, that was a big problem. It's one of those things you eventually realize, that you need to overcome everything. Once you do, that's sort of the turnaround point, but it takes a while to get there,"

Educational Programs/Provisions

The researcher asked Heather what kind of programs or educational provisions facilitated her development. She related that fortunately she had been involved at an early age in enrichment programs, whether after school or over the summers. Heather went to a mid-west talent development center to take English courses over three summer. She feels like she had very good teachers there. The English classes she took there gave her credit for classes and allowed her to not take AP English her senior year. She also went to the Governor's Latin Academy. She describes this as a terrific experience as well. "Again, that was one of the times when I really felt talented at what I was doing. She was the lead in a play and wound up wanting to direct two other plays." She describes this part of her educational life as a lot of fun. Heather had a great community with all of the students who were all gifted. "Let's be honest, it's really hard to be good at Latin without being a gifted student." It was a really great experience. The Latin Academy produced more friendships for her. "We were a more tight-knit group, and we all were very focused on Latin. We had a variety of different classes and they were all on different subjects in Latin. It was great! That was probably my favorite summer experience." Another experience that was good for Heather was taking classes in college during high school. If Heather took the same classes in regular school she would make "B's"; however, taking it in college she often received A's. "I think this was true mostly

because I was much better at the tight sharp focus that you have if you have a class every single day for a certain number of weeks.” Heather also firmly believes that the summer experiences that she was involved in stimulated her intellect and were the things that kept her going during the school year. Heather’s mother verifies that her experiences in these programs were indeed “good in terms of stimulating interests and socialization. Her attendance in Saturday and summer programs provided added enrichment that kept interest in academics alive and many teachers she encountered in these classes were excellent.” Her mother believes that the early work she did with Heather in Latin really mattered. The timing was propitious and the opportunity allowed me to see her learning problems up close. From her perspective, it provided a context for her to understand how much I cared about her learning – and I was teaching her something I loved which also made it special. Her father’s work with her in music, I believe, also positively influenced her love of it and paved the way for many explorations with instrumental and vocal experiences. Her work in theater with professionals delighted her and caused her to grow and develop.”

Crystallizing Experiences

Age sixteen was definitely a strong crystallizing moment for Heather. Many things were happening in Heather’s life that were creating a difficult scenario for her in her personal life and her academic life. “This was just the moment when everything fell apart; however, to a certain extent, it was also the point where Latin rose to a different level in my life.” Heather and her mother studied for her Latin Exam together. She told her mother that she could translate Latin for the rest of her life and be perfectly happy and how much she loved translating.

Another crystallizing experience for Heather was acquiring her driver's license at the age of 21. This gave Heather a sense of freedom and ownership. Feeling more in control of her life, she decided to direct a play and "even though I was having health issues, it was sort of the point where I felt the most 'in control' of my life than I had up until this point." Heather's mother agrees with this and adds a little more insight. "As mentioned, I think Ariel's being treated as a gifted child was an important ongoing experience for her in her identity formation. When she won her spelling and Latin awards, I think it made her see her promise in those areas. When she did well in the advanced classes at N U it convinced her she could be competitive academically. When she performed on stage in meaningful parts, she knew she could act. When she directed the three ancient plays for the Classics Department her college, she realized she was good at it and preferred it to acting."

Heather thought she would never be able to drive since she was blind in her right eye. Driving was supposed to help me gain a little more independence. "I have sort of struggled with the fact that I felt very dependent because of all of these medical issues and so much of my life just wanting to do something to prove that I'm my own person." The steps toward independence have been good for Heather. She has now been able to live on her own, have her own job, without a problem. She acknowledges that teaching is not very easy; however, she finds it exhilarating. Her teaching is quite exhilarating. She is awed to know that she is the master of her own destiny. "You own your own classroom; it's your own world where you can create whatever you want. And I love that feeling. It's the most empowering feeling in the world." Heather shares that she sensed these feelings when she was directing plays; "I started to feel hints of that when I was

directing, especially the second play. It was so large; it was like having my own class.”

Heather’s mother verified that teaching had played a crystallizing role in her life. “I think teaching has been the most crystallizing experience she has encountered to date because it has provided her a lens to understand herself better, and to see ways she can use her abilities to help others”

Environments and Social Contexts

The researcher asked Heather to explain what environments or social contexts had proven to be the most conducive to her learning. Heather responded that when she had taken a compressed version of a course or when she could sustain intense focus for a short period of time. Courses designed this way were the most intellectually stimulating for her. When subjects were spread out, Heather had a hard time feeling passionate about them. “I always felt like I needed to have a very intense narrow focus on a subject in order to really ‘feel it in my gut.’” When studying or reading on a new subject, Heather tends to voraciously read on the topic rather than spreading it all out. Her academic year interfered with this mode of learning because she wound up doing reading once a week and not doing it in one fell swoop, which was easier for her. Heather states that she works better in spurts of time. She finds that teachers and others don’t really understand this mode of learning. This is an area that her mother agrees with. “Ariel has done well in one-on-one tutoring contexts, small group learning, and small school settings that are highly structured. She does best in shorter term learning situations like summer school courses or 3-week intensive experiences like residential precollegiate programs. She is highly social and learns better with someone rather than independently”

Impact of Strengths and Weaknesses

Heather was asked at what point in her educational journey she thought her strengths and weaknesses were emphasized over one another. She stated that in fifth and eighth grade she felt like she was at her strongest in terms of having other people recognize that she was talented and that she was a good writer and very proficient in terms of what she was doing. Heather did not feel particularly weak until sixteen years old. “When I was 16, everything sort of just fell apart.” It was physical and emotional; however, Heather did not feel academically strong either. This was a very weak time for her, although she still felt there were things that she would always be able to do.

Heather’s mom comments on this interplay of strengths and weaknesses: “Weaknesses were evident early on but they were not serious in respect to consequences in respect to grades or other sanctions for behavior. High school became more challenging in respect to maintaining grades for college entry.

I still felt at that time like I would always have the characters in the books I liked reading. I would always have my Latin ability that would never go away, which I found out later that it could if I didn’t stay with it. High school became more challenging in respect to maintaining grades for college entry. College became the biggest test of limits—strengths became grounded and ADD-related weaknesses showed up to be pervasive, especially in weaker academic subjects. “As schooling advanced, it became more difficult for Ariel to hide weaknesses or for them not to matter.”

During college, Heather’s weakest moment was following her radiation treatment. It was after these treatments that she couldn’t stay awake for long periods of time and she couldn’t think squarely enough to organize her thoughts into even a paragraph. She

remembers this as one of the most disturbing things she had ever felt.” Heather compares this time period in her life to the play *Flowers for Algernon*.

Conclusion

The five interview narratives along with the parental input are diverse and give a broad representation of the issues that impact successful twice exceptional students. Each of their journeys is unique and was chosen with extreme case sampling in mind. Their experiences both positive and negative are unique to their journey, yet within them are similarities that can be learned from, as well as differences that provide wider boundaries to help illuminate the problems and victories twice exceptional students encounter.

Chapter Five: Analysis of Results

Introduction

This chapter will report on the synthesized findings from the questionnaire and case studies in Chapter 4 using the study questions to guide the analysis. The overarching study question was: What intrapersonal and environmental factors have both inhibited and facilitated the talent development journey of intellectually talented twice exceptional students who are now juniors and seniors at a selective institution of higher learning. The supporting questions were: (1) What internal factors were important in facilitating twice exceptional students successfully through their journey? (2) What external factors were important in facilitating twice exceptional students successfully through their educational journey? (3) What internal factors inhibited twice exceptional students through their educational journey to date? (4) What external factors inhibited twice exceptional students in their educational journey to date? (5) What are the similarities and differences across internal and external factors related to twice exceptional students who have achieved junior or senior status at a selective institution of higher learning?

Each of these questions is answered through the individual and the cross case analysis in this chapter. Open codes may be found in Appendix H, Codes aligned with themes may be found in Appendix I, and the codes with the four quadrant frame work of inhibitors and facilitators and intrapersonal and environmental catalysts. may be found in Appendix J)

Individual Case Analysis # 1

Alyssa's profile had factors that were both consistent and inconsistent with the research in the field surrounding twice exceptional students. The case data were analyzed to target the factors that inhibit and facilitate both internal and external factors that lend insight into the educational journey of twice exceptional students.

Intrapersonal Facilitators

A factor in Alyssa's data that is consistent with what is known in the field was her high amount of determination to succeed. Baum (1986) writes concerning this aspect of twice exceptional students that are successful. The importance of the role that perseverance had played in the talent development journey of gifted students with learning disabilities was a defining characteristic of Alyssa. She "finds her personal passion and then goes for it." Her high ability and her discernment gives her the ability to see all the struggles, understand how they impacted her both in her performance and her self-esteem, and the ability to still address the goal and pursue it even if it required modification.

Honesty about her circumstances was the next internal facilitator which was closely linked to discernment. Alyssa's ability to be honest with herself about her strengths and weaknesses worked in her favor, particularly as she negotiated accommodations and creative alternatives for herself. This is found in the literature on twice exceptional students as the will to conquer adversity (Baum, 1996; Maker, 1984; Csikzentmihalyi, 1990; Neihart et al., 2002). Alyssa's honesty complements her persistence by fueling her understanding surrounding the enormity of perseverance necessary to overcome weaknesses, which can then fuel the passion to keep the end in

sight. Her willingness to put in extra time and effort was unique to this successful population. “These highly successful adults emphasized their potential to achieve rather than stress the deficits of the disability. Factors such as persistence, self-confidence, the will to conquer adversity, and strong character have been cited as contributing to the success of individuals with disabilities” (Maker, 1984).

Alyssa also thrived on relationship. Her ability to sense the needs of others and interact on a personal level with them helped to carry her when her disabilities made things difficult. Gifted students with disabilities are better served when those working with them target their strengths to allow for success while they remediate the weakness. More often attention is paid to their deficiencies, rather than development of their gifts (Fox et al., 1985).

Intrapersonal Inhibitors

Interpersonal inhibitors that impacted Alyssa were numerous. One obstacle that worked against Alyssa’s honesty with herself was the continual denial of the system that there was a problem, and their refusal to test her and confirm what she knew internally to be true. Her late diagnosis created problems of its own. Alyssa’s late diagnosis underscores how easy it is to miss these students; a theme echoed in the literature (Brody & Mills, 1997; Baum, 2004) The angst surrounding the realization that her SAT scores were low due to lack of accommodations continues to haunt Alyssa; “why did everyone else get help but I didn’t.” “For all three types of gifted learning disabled children, the social and emotional consequences of having exceptional abilities and learning disabilities, when one or both of the conditions is unrecognized, can be pervasive and quite debilitating, as well as difficult to address if appropriate diagnosis and

programming never takes place or are delayed until adolescence (Baum et. al., 1991; Durden & Tangherlini, 1993; Fox, Brody, & Tobin, 1983; Whitmore, 1980).” Alyssa was not given the strategies she needed or the basic skills instruction to compensate her disability (Baum, 2004). Alyssa did not receive these strategies and was left to find her way through the programs and provision at two different colleges that were qualitatively different from each other.

Silverman, (1983) speaks to the paradox of gifted and learning disabled students due to disabilities. Alyssa knew when she arrived in middle school that her brilliance was no longer compensating for her intense need for extra time on tests. Brody and Mill, (1997) state that, “Historically, learning disabilities have been considered an ‘invisible disorder’; the problems and needs of gifted students with learning disabilities may be the most invisible of all.” Good grades, fueled by perfectionist tendencies cause gifted learning disabled students to fly under the radar of detection of special education and therefore leads to under identification for their disabilities (Olenchak, 1994; Neihart et al., 2002; Seligman, 1995; Neumeister, 2004; Webb et al., 2005).

Alyssa’s hard work and inability to compromise the quality of her product, can be linked to social and emotional issues regarding perfectionism in gifted students. The drive to achieve perfection, common in many gifted children, generates much psychological conflict in academically talented children who have difficulty achieving” (Olenchak, 1994). Her parents asked for testing and she asked for testing; however the system was not responsive due to her high grades, despite the fact that she was spending triple the time of the average student on work in order to obtain good grades. Her hidden disabilities took much of that luster from her over the following years. Twice exceptional

students are confounded by their inability to be able to do what they cognitively know they are able to do. “Virtually all had some idea that they could not make their brain, body, or both do what they wanted it to do” (Schiff et al., 1981, p. 403). Consistent with her disability, her inability to compensate became more and more obvious to her as the workload increased and extra time was necessary for to complete tests; “I never have enough time.”

Environmental Facilitators

Research has documented the importance of early identification and participation in gifted programming as influential environmental facilitators (Reis et al, 1995). Alyssa attended The Governors’ School for the Arts in high school. She had a great experience and made a new community for herself there. Some of her teachers saw her weaknesses, but encouraged her to work to her strengths. “The importance of gearing the curriculum to the strengths, rather than weaknesses, of academically talented students with learning disabilities, and of utilizing a variety of strategies, adaptations, and accommodations to help them succeed, is widely acknowledged (Baum et al., 1999; Fox, Tobin, & Schiff, 1983; Hishinuma, 1991; Silverman, 1989; Suter & Wolf, 1987; Waldron, 1999).” Alyssa had the fortune of being involved in gifted programming, but her disabilities were never targeted for remediation, in fact they were never identified until after high school.

Alyssa parents were a strong support, especially her mother, making sure she was tested prior to college (Bloom 1985; Goertzel et al., 2004; Winner, 1996; Karnes & Marquardt, 2000). Even with the discovery of multiple disabilities, Alyssa had performed well enough to be accepted at Clemson University. While she was there, she was given numerous resources to assist her weak areas. She was unaware of the depth of

provisions accessible to her at Clemson. Her grade point average was high and she had no reason to question whether she could succeed in any college based on her experiences her first year; however, Alyssa wanted to attend a selective institution of higher learning. She applied to the college and was accepted for her sophomore year.

Her need to excel and her tendency to want a perfect product were challenged after she left Clemson. Clemson with all the resources and facilities for the learning disabled had not prepared her for the paucity of services she would find at her new college. She was unaware that she was trading immense accommodations and provisions for the reputation of a selective institution of higher learning as part of her personal quest for perfection. She came expecting to succeed and gain something she couldn't attain at Clemson. However, when she arrived, she found a dearth of services for students with learning disabilities, a lack of understanding about learning disabilities, a small population of learning disabilities students, (which caused Alyssa to feel like an oddity) and the absence of a person to stand in the gap for her in the disabilities department. The provisions at this selective institution of higher learning were meager compared to where she had been; however, Alyssa was successful as she met with the Academic Dean weekly. She developed a strong relationship with the dean and the dean became a mentor for her, assisting her in time management and organization skills.

Her ability to look at things honestly led her to change her major, even though she would have preferred to stay in her business major. She changed to an art major. Alyssa was gifted in arts as well as academic ability and she now faced the fact that she would have to change majors to achieve the excellence she sought. With the proper

interventions, targeted accommodations, and high accountability, she might have succeeded with her first choice of majors.

Environmental Inhibitors

One environmental inhibitor for Alyssa was her brother's learning disabilities problems. This was not mentioned as an inhibitor in the literature. His deficits were so severe that her family barely noticed Alyssa's problems. They were overly focused on him, and under-focused on Alyssa. Since Alyssa was compensating well, her disability remained hidden. The school system would not test Alyssa, so her disabilities would not be discovered until her family took things into their own hands and had Alyssa tested privately. Alyssa was diagnosed with multiple disabilities AD/HD, an undetermined learning disability, dyslexia, and slow processing speed.

Alyssa's transition to middle school was not easy; this was when things seemed, for her, to fall apart. As things fell apart for Alyssa, she found that time management associated with her AD/HD became a huge obstacle for her (Barkley, 1990). Barkley suggests a theory that hints at the fragile interaction between the characteristics of the students and the requirement of the environment (1995). Her assignments took triple the time. Her perfectionistic tendencies drove this. "I will not sacrifice product even if I have to turn it in late." She continued to work hard and make good grades through high school. Literature in the field suggests that modifications in curriculum, pacing, and instructional strategies have positive effects on increasing students attention and in improving self-regulatory behavior and achievement (Baum et al., 1996: Baum, Renzulli, & Hebert, 1994: Neu & Baum, 1995; Olenchak, 1995).

When Alyssa transferred from Clemson to a selective institution of higher learning, she discovered the Dean of Disabilities was not as accommodating as the Dean that had served her at Clemson. Alyssa found her “very hard edged.” This issue is not found in the literature. Alyssa was faced with the reality that she had multiple learning disabilities, and the only provision that would be provided for her now was extra time on tests. This was compounded by the absence of clear rules about where she would take her tests or how she would receive the services she needed to be successful in this rigorous and competitive environment.

For twice exceptional students, education and success can look and feel like a tradeoff between strengths and weaknesses and success and failure. She finished her degree in May of 2006. She looks toward the future and states that graduate school is a necessity. Alyssa ended her interview with the statement that she believed the college (administration and staff) were unaware of the issues that impact students that are diagnosed with learning disabilities who also have gifts in academic ability.

Individual Case Analysis # 2

Don represented the social and emotional quandary of twice exceptional students more than any of the other four cases. His struggle with depression, conflict at home, a lack of a sense of community, and the loss of personal direction are at the heart of the issues surrounding gifted students as well as those exhibiting dual exceptionality (Colangelo, 2002; Gorman, 1999; Baum, 2004; Piechowski & Colangelo, 1994; Piechowski, 1991; Silverman, 1993). These gifted students with disabilities struggle with many of the same problems as their gifted peers without disabilities; however, the social and emotional issues are multiplied against the backdrop of trying to overcome learning

challenges. These children struggle with anger, fear of failure, a strong need to control, low self esteem, and sometimes even fear of success (Strop and Goldman, 2001).

Abrams (1986) stated, "The vast majority of children with learning disabilities have some emotional problem associated with the learning difficulty" (p. 190).

Intrapersonal Facilitators

Don demonstrates perseverance, which is found frequently in the literature on successful twice exceptional students Baum, 1996; Maker, 1984; Czikszenmihalyi, 1990; Neihart et al., 2002). It is a characteristic that is critical in order for twice exceptional students to succeed. He states, "My perseverance was critical for me. I had to work harder to not allow my own depression to win over me." He also reveals that he is a diligent worker. He admitted that he is not very organized, but he definitely has a strong work ethic.

Don's ability to think critically even when his deficits slowed him down is central to his success. He is aware of what he doesn't know and asks questions to fill in those missing pieces. Blacher (2002) states that "The single largest factor that distinguished the high ability/LD groups from other groups was a sense of 'inefficacy' in school."

Ability to write well intuitively gave Don a sense of security and accomplishment. This area of strength was pivotal in directing him to future plans about his life calling. This writing strength became public when he wrote and gave an eulogy at his grandmother's funeral. It was at this point that public acknowledgment of his giftedness prompted him to reconsider what his life calling might be. He returned to school after the funeral and became involved in a campus newspaper writing opinion articles. Writing

and sharing with others helped him to discern what he really loved and felt called to do; this understanding helped him to grow as a person.

Don had a crystallizing experience after his sophomore year. He came to faith and found a greater sense of himself. This decision created a community for Don along with a personal mentor in the person of his pastor. His writing strength coupled with this new sense of purpose and community caused him to sense a call to the ministry where his skills would coalesce to support this calling.

Intrapersonal Inhibitors

Don's disability was an inhibitor across his educational journey. His dyslexia made reading a tedious task, limiting the amount of reading he could accomplish efficiently, especially in research. Don also has difficulty with his handwriting. His inability to hold things in his memory was difficult in the early part of his education.

Depression and conflict were prevalent themes across Don's academic journey (Webb et al., 2005; Neihart et al., 2002; Olenchak, 1994; Delisle, 2006; Winner, 1996; Silverman, 1993). In fact, Don states that he can't remember a time he wasn't depressed. Don felt that his difficulties were at the heart of his parent's conflicts. Loneliness and abandonment were themes across his journey. His experiences at home and his lack of community among his peers, came together to enhance a sense of loneliness. These social emotional issues are common in this population (Webb, 2007).

Yet, another problem that faced Don was his unique inability to put himself in situations that would work towards his strengths. This emotional asynchronicity and stress (Silverman, 1993; Olszewski-Kubilius, 2003; Galbraith & Delisle 1996; Delisle, 2006) are not uncommon among the gifted and twice exceptional population. Don stated

that he had built up a cycle of putting himself in situations that weren't really conducive to his weaknesses. One of these situations was running for class office each year of high school and finally being elected class president his senior year; however, it became a source for an emotional breakdown at the end of his senior year. Don's lack of community and emotional asynchronicity with his peers clashed when he was expected to have a date at the senior dance. This created social and emotional difficulties for him. He couldn't get a date and this acted to erode his self-esteem and exacerbate his depression to the point of a breakdown. He was extremely angry about many things at this time; however, he felt the root of his anger was the continued conflict he felt due to school problems and family conflict.

The last internal inhibitor for Don was his inability to be successful the first semester of his freshman year in college. He had wanted to major in math and science; however, his learning style and disabilities did not fit the rigor and competitiveness of these academic domains. Don had to change his major after his freshman year due to a realization that he didn't have what it would take to be successful in his area of interest. He states, "I felt like everything I had thought about myself was all wrong."

Environmental Facilitators

Even though there were misunderstandings between Don and his father about his education, he still feels that his parents, particularly his father, were critical facilitators in his personal and educational development (Bloom, 1985; Goertzel et al., 2004; Winner, 1996; Karnes & Marquardt, 2000). His dad was "on point" across Don's educational journey.

Teachers, especially his government professors, were key facilitators in his intellectual growth. Don felt that these teachers challenged him to think deeper and broader about issues that were raised. He was challenged to think about different viewpoints and new ideas.

One accommodation was necessary for Don throughout his education. Without extra-time on tests, Don would not have been successful, especially in math and science. He was in a disabilities program in high school; however, he didn't feel like this was particularly effective. With the exceptions of extra time on tests, Don felt as if he had "made it" on his own.

In college a local church and a campus Bible study became instrumental in providing Don with a mentor and friendships which were part of an important community that had defined his last years of college. Don's pastor became not only his teacher at church but also a mentor who had a strong positive impact on him. It provided people and programs that supplemented his life, but also a defining experience that gave his life purpose and meaning by illuminating his gifts and propelling him to become a minister.

Environmental Inhibitors

Don's disabilities demanded tremendous task commitment that stole personal time from him on a daily basis. Don spent the preponderance of his time learning the skills that took other students only the school day to master. His father spent a lot of time with him when he was struggling with learning to read. This time spent in leveling the playing field for him academically because of his disabilities, was time he did not have available to socialize with peers and gain the social skills that children naturally learn in

extra-curricular activities. Don was liked at school; however, this never translated into friends over to the house, invitations to parties, or friends calling him on the phone.

Disabilities Services through the Dean of Student's Office at college provided extra time on tests for Don; however, when he did not do well his first semester, his father asked for permission to register him early the next semester. His father helped Don choose classes that would not completely tax Don's weaknesses and would spread the load out to help him be successful; however, the Dean's Office would not allow him to do this after this one semester. They stated that early registration was not an accommodation that was necessary for Don.

Lack of a community of friends at his college was a source of social and emotional problems for Don. He had a roommate that he did not get along with. He felt they were complete opposites. The next semester his roommate moved out after three weeks to live in a fraternity house. Don highlights this time in his life as particularly inhibiting because he didn't do well by himself. His relationships with females created more conflict for him.

Don's grandmother died his junior year. This impacted him deeply. Ultimately this experience provided insight for Don, but at the time it was hard for him to accept her death. He felt like he had lost a large influence in his life.

Individual Case Analysis # 3

Daniel represents the twice exceptional student that copes by pleasing those in authority. He is fun and expresses a larger than life persona. Daniel had the ability to engage people in helping him handle his problems.

Intrapersonal Facilitators

Daniel's parents state that from the beginning that he was a people pleaser. "Daniel was a likeable kid; teachers could tell he wanted to do right even when he was annoying and over-excited; he had the ability to engage his teachers." This ability worked to facilitate positive experiences for Daniel. He worked hard to make people around him happy and this created the balance that Daniel strived to achieve. "Daniel always managed to keep the dialogue open and kept open relationships with his teachers." This was true of all authority figures in Daniel's life.

Daniel is acutely aware of how his AD/HD impacts all the details involved in learning. His ability to understand and listen to the messages his body sends him allows him to know when he needs his medication and when he does not. He also balances his need for sensory intake and spontaneity (impulsivity) against his need for medicine when taking tests or needing to attend in class.

Daniel is a strong visual learner. This is demonstrated by his dependence on note taking. He states that he uses his notes as study guides. As he reads his notes, he visually remembers points on the power point presentation that his professors used during lecture. Daniel believes that his strategy for note taking was a critical coping strategy for him. He takes notes even when he is not really attending to provide a scaffold for memory because of his high distractibility.

According to Daniel, he has a deep place inside of him where he gets a lot of motivation to do things. This "well of motivation" allows him to push through many activities and keep working until something happens. Daniel shows an ability to sustain task commitment and persevere when things are challenging (Baum, 1996; Maker, 1984; Czikszenmihalyi, 1990; Neihart et al., 2002). The need for challenge is great in Daniel;

the chance of failure actually motivates him further to succeed. Daniel needs and thrives on challenge.

Daniel spent a semester abroad and reflected on his perfectionistic thinking that he was caught up in the United States. He was introduced to a different model for assessment that acknowledged a novice-expert continuum and graded students accordingly. The school in Australia that he attended set the ceiling for good work at 85. He then realized that learning was important and that general education requirements did not necessarily require expert status.

Daniel realized his junior year that his need for extra time was greater than what he had thought. He had to rethink his position of not requesting accommodations; which required additional testing. He realized that he was compromising his grade point average by not receiving the extra time that his AD/HD allowed him.

Intrapersonal Inhibitors

Daniel presents an AD/HD profile and he remembers these behaviors across his educational journey (Kaufman, Kabfleisch, & Castellanos, 2000; Goerss, Amend, Webb, Webb, & Beljan, 2006; Barkley, 2000; Moon, Zentall, Grskovic, Hall, & Stormont-Spurgin, 2001). Daniel is impulsive and highly distractible. His impulsivity was often demonstrated in annoying behavior to those around him in middle school, particularly his teacher. Daniel could be distracted by any object in the classroom. He would have running dialogues with himself over inanimate objects. Impulsivity worked against him in learning to self-manage. His inability to sustain attention made extra-time on tests a necessity. Daniel used note-taking to compensate for his lack of attention. Even with this coping strategy, he still loses attention throughout the class; he recalled taking notes

and not really listening. His mind would wander off, but he would continue to write what the professor was saying, using the scaffold he built to reconstruct the class when he was studying.

Daniel's deep need to please authority and people around him worked for him and against him. He described working hard to please everyone around him. Although we tend to think of people pleasers as positive, the behavior can also indicate an inability to be authentic with those around him. When he chose not to test for his accommodations his first year of college, it was partially rooted in his perception of a lack of acceptance of his need for extra time on tests by the Dean of Disabilities. "I think that she perceived AD/HD as a joke or an excuse for extra time."

Daniel struggled during the beginning of his sophomore year because he did not submit to the testing requirement at college. He decided that he would try to make the journey through college without any accommodations. This worked the first year because of introductory level classes and willingness on the part of his professors that year to allow him extra time; however, his sophomore year the professors would not let him have extra time. He took a large load that semester and his need for extra time as the work load and the complexity increased created a losing situation for Daniel.

Daniel's natural aptitude also caused him to get over involved and over committed in extra-curricular activities. His mother alludes to Daniel being over-involved in middle school and he was given a choice of what he needed to keep or cut out of his schedule as he moved into high school.

Environmental Facilitators

Daniel's parents were his chief facilitators of personal development; particularly his father. Daniel felt like his parents understood him deeply and accepted his strengths and weaknesses (Bloom, 1985; Goertzel et al., 2004; Winner, 1996; Karnes & Marquardt, 2000).

Daniel felt like teachers did a good job of guiding him in a positive direction throughout school. He stated that they focused on teaching him to help himself. He notes here that teachers often got annoyed with students with AD/HD and found no reason to engage with them. He alludes to them "blowing students off."

Daniel was involved in a regional math talent search that was extremely beneficial for him. He feels like the talent search set him on the fast track for math. This also speaks to Daniel's need for challenge. He also felt that Advanced Placement classes were challenging and enjoyable.

Daniel was diagnosed with AD/HD the end of his junior year in high school. He was put on medication his senior year. He said there was a qualitative difference in his attention and his impulsivity that year.

Daniel went to study abroad in Sydney, Australia the second semester of his college sophomore year. This was a positive experience for him. He enjoyed the diminished emphasis on grades and the increased emphasis on learning. Daniel's first semester of his sophomore year had been extremely frustrating and not as successful as he desired. He returned from this trip and tested for the accommodations he needed in college.

Daniel received accommodations his senior year in high school and his junior and senior year of college. His main accommodation was extra time on tests, which was

crucial. His grades improved tremendously with extra time. He also sat in the front of the class most of his school career. This happened naturally due to his name placement, but he embraced it as a good accommodation personally for his distractibility and lack of attention.

Daniel finds his environment for study to be extremely important. He needs to study alone, at wide open tables, and with well lit spaces.

Environmental Inhibitors

Daniel suggests that his early childhood teachers could have contributed to his lack of attention by the seating arrangement they chose in those years. He had to sit in blocks of four desks put together to make a pod. He admits this may have been very distracting.

He believes that chance played a role in getting diagnosed with AD/HD. His disability was undiagnosed until his junior year of high school. He was not suspected as having a disability until his brother demonstrated difficulties with school and in his personal life. When his parents read the literature on AD/HD they realized that Daniel was the one who had the problem. They had him tested and he was placed on medication the next year. When he began his medication a teacher that he had in ninth grade came up to him and said, "You're not annoying anymore. You're easier to get along with." Daniel questions the value of this experience.

The College's Dean of Student's Office via the Disabilities Office provided the largest obstacle because of the administrative part of getting extra time on tests; they wanted him to retest for accommodations that he had received in high school. This made Daniel perceive that they thought AD/HD was a joke and an excuse to have more time.

Individual Case Analysis # 4

Sabrina presents with multiple learning disabilities and high academic ability in mathematics. Her case offers yet another unique accumulation of experiences that illuminate the educational journey of twice exceptional students.

Intrapersonal Facilitators

Sabrina was diagnosed in first grade with auditory processing disorder and dyslexia, but also was found to be gifted in mathematics. Her high ability caused her to challenge herself; even in first grade she was doing this by filling an entire notebook with math problems, using the highest number and the most complex processes that she knew how to compute. Sabrina continued to love quantitative processes that involved reasoning and synthesis. She took pride in math classes where the boys usually prevailed, proud that the little girl with the blond hair beat them.

Her perseverance was one of her greatest internal qualities. When she doesn't achieve she becomes very upset to the point of an emotional breakdown: it is this drive that keeps her on task until she masters the concept or skill (Baum, 1996; Maker, 1984; Csikszentmihalyi's, 1990; Neihart et al., 2002). It was very difficult for her to learn to read, but once she could, you could find her reading anytime she had time. During middle school, she found her solace in reading.

Sabrina uses her creativity to negotiate ways to meet requirements. She finds ways around requirements and has learned how to negotiate receiving accommodations which was essential for her in high school. This speaks to her metacognitive abilities in learning to understand testing and how to be a good test taker.

Sabrina learned to take responsibility for challenges in her education. She has navigated the transition of becoming more independent and taking on the role of her own advocacy. She also takes pride in understanding material even when the grade she gets is lower than she would desire.

Setting high, yet realistic goals for herself is part of Sabrina's need for challenge. Despite her extreme difficulties and the rigor of the school she attends, she set a goal of obtaining above a 3.0 GPA by the end of her junior year. She is currently near the end of that year and has a 3.05 GPA. Sabrina sets her goals high. She has set a goal to obtain an MBA or go to Veterinary School at Virginia Tech. She was just accepted into Virginia Tech in veterinary medicine. Sabrina states her approach to academics and challenge, "Obstacles fuel the challenge, the ability supports the disability, while the perseverance keeps it driving forward."

Internal Inhibitors

Sabrina was diagnosed with an auditory processing disorder and dyslexia in first grade. This made learning to read extremely long and difficult for Sabrina. She was so verbal; however, that it hid her inability to read. She made up stories in first grade causing her teachers to miss her lack of reading skills. Later in middle school, reading became a solace for her, but it isolated her from her peers even though she was very interested in what she was reading.

Sabrina's high ability in math worked against her in upper grades. This worked to mask her disabilities and cause school personnel to question her need for accommodations. In high school she attended a prestigious math and science magnet and was denied accommodations because of her high grades. Her parents had to fight the

system by hiring a professional advocate to get her accommodations reinstated the next year.

Sabrina puts a tremendous amount of pressure on herself to excel. When she doesn't excel, she falls apart. She is extremely sensitive, and this impacts her in different areas such as environment, accommodations, socialization, and expectations (Olenchak, 1994; Neihart et al., 2002; Seligman, 1995; Neumeister, 2004; Webb et al., 2005).

Sabrina's dyslexia and auditory processing make foreign languages almost impossible. Her freshman year she had to take French without any accommodations. This was a recipe for disaster. She failed French, but was able to bring it up once her accommodations were reinstated. Her dyslexia also made a few of her college courses unmanageable; however, she had a key professor that designed a word list for these difficult classes which helped her. This was successful and became part of her accommodations.

Sabrina is frustrated by her own disabilities. She experiences angst when she thinks she should be able to be successful, but her disabilities keep her from getting the result she wants. Sabrina has difficulty adjusting to the constant need to establish appropriate accommodations, different teaching styles, and the work of becoming her own advocate.

Environmental Facilitators

Sabrina cited her parents, particularly her mother, as the greatest facilitators of her personal and educational development (Bloom, 198); Goertzel et al., 2004; Winner, 1996; Karnes & Marquardt, 2000). Her mother was pivotal in referring her for testing, which found her auditory processing disorder and dyslexia. Her mother also hired a math tutor

to challenge her in her strengths while the disabilities specialist worked on her weaknesses. Her mother worked with her nightly to help her when spelling became difficult; however, after third grade the spellcheck became Sabrina's support for her spelling difficulties caused by an inability to discriminate differences between letters. In college Sabrina's mother was asked to step back, and Sabrina was made to step forward as her own advocate.

Teachers, particularly some of her professors, have made large differences in Sabrina's educational journey. Sabrina friends have been a source of strength for her also. Programs and provisions have played a large role in Sabrina's journey. Gifted options from fourth grade on included pull-out and centers where curricula were matched to her ability, as was the math and science magnet for high school. Sabrina excelled when she was in programs with students similar to herself.

Sabrina participated in outside of school activities to meet her needs for competition and socialization. She was involved in ski racing and pony club. Her horse and riding were a very important part of personal therapy for stress and relaxation. Sabrina's mother moved her horse near her college so that she would continue to have this outlet during college.

All of Sabrina's accommodations were necessary; however, the one accommodation that was life saving was the extra time she was given on tests. Sabrina also remembers back to BC Calculus in high school when preferred seating was added to her 504 Assistance Plan. She had a very difficult third quarter because her teacher would not allow her to sit near the front. This seating further complicated her visual and auditory weaknesses.

Sabrina took classes every summer at a college near her home in order to spread out her academic load. She had to get permission to take courses in her major at a college near her home; however, this was an excellent way for her to maintain balance in her course selection and semester load. Sabrina has been accepted into the Veterinary School at Virginia Tech. She is excited, and she is already preparing all the documentation she will need for the disabilities office for this next challenge.

Environmental Inhibitors

Montessori school was not a good fit for Sabrina. School officials did not think that Sabrina had any learning problems. It took her mother's intervention to prove to the school that Sabrina was not learning to read. The independent nature of the program allowed Sabrina to pretend to read. The teachers completely missed her inability to read because of her ability to make up great stories based on the pictures.

Sabrina's mother did not want her to use the spell check. She wanted her to learn how to spell; however, Sabrina's disability was severe, and the spell check was kept as an accommodation for her spelling. Because Sabrina was extremely bright, she stood out as different among her peers socially.

Sabrina's greatest inhibitor has been the constant need to prove that she is learning disabled. She is weakest in classes that require a lot of letter discrimination. Sabrina does not achieve without her accommodations in place. Learning environment has always been critical for Sabrina; it is often more important than her mode of study. She found that taking her tests in the same room all the time was helpful and habituating for her. The size of the classroom is also important for her success. She enjoyed classes that mandated participation and also did well in them.

When Sabrina was accepted into the math and science magnet school, school officials took away her 504 Assistance Plan, and she had to complete ninth grade without accommodations. The school believed that her grades were too high to warrant accommodations. Her greatest weakness was in French. She ended up failing the class. She felt like the school forced her to fail. In order to get her accommodations back, her parents hired a professional advocate. They won the battle, but the war would rage on as she entered each different school. Sabrina felt like the magnet school had prepared her well for college.

Sabrina was accepted to a selective institution of higher learning. The accommodations issue continued to plague her. Once again she was asked to be retested to certify her disabilities; since they would not accept her 504 plan from high school.

Individual Case Study # 5

Heather demonstrates another unique case, full of complexities, multiple disabilities, and physical impairments. The co-morbidity of impacting weaknesses created a difficult educational journey and required tremendous will and strength to conquer.

Intrapersonal Facilitators

Heather's desire to understand and analyze what she read, and to think deeply about the subjects she studied demonstrates her love of critical thinking and analysis. This was at the core of what she found most fulfilling and challenging in her life. It was the deep love of literature and the written word in all forms that inspires her to act and direct creative presentations of characters and story.

Heather believed that her greatest strength was her personal history. She has been through much, and she has the sense that she could survive anything at this point. The experiences in her life have made her stronger and more aware of what she must overcome. Not only has it impacted her own ability to press forward, but it had crafted the teacher she has become today. Her experiences have made her a better teacher, as she teaches Latin in a nearby public school system. She works hard to do things differently and has empathy and compassion for those students who remind her of herself. Teaching has been a turning point for Heather. She finds it exhilarating. She feels like she is the master of her own destiny when she is in the classroom.

Heather's perseverance has served her well through all the difficulties she has weathered in her life (Baum, 1996; Maker, 1984; Czikszentmihalyi, 1990; Neihart et al., 2002). She has a strong sense of persistence and adaptability to new circumstances. Given the challenges she faced and the obstacles she had to overcome, her determination and strong will have been good companions for her journey. At sixteen, when Heather's battle emotionally intensified into depression, she discovered her deep love for translating Latin. This caused the love of this subject to rise to a different level of importance in her life.

Intrapersonal Inhibitors

Heather was a very astute and voracious reader at five and a half. Her high verbal ability was evident; however, it was clear that there were deficiencies in specific areas, especially math. She had poor vision in her right eye resulting in not being able to line up numbers correctly along with an inability to interpret them correctly. She ended up hating math due to the struggle and could not tune into the concepts at all.

Heather did not recognize her own giftedness early even though her parents and her teachers were convinced of it. She was extremely introverted in elementary school. Heather coped with the challenging experiences she had to overcome by becoming somewhat oppositional defiant with her teachers. She was very knowledgeable about literature and numerous subjects due to her voracious reading. When the classroom reading assignments were markedly below her reading level, she challenged the teacher concerning the low level. This confrontational piece was uppermost in Heather's memory about elementary school. She felt like she antagonized teachers when she sensed she knew more than they did. Part of this was also rooted in a persistent feeling that teachers didn't really care about her and her sense of not really belonging.

Heather's disabilities demonstrated themselves in weaknesses regarding procedures, following directions, and engaging in planning and organizing her work. This caused teachers to perceive her as lazy and disorganized when not turning in work, not completing assignments. Unfortunately, sloppy disorganized behavior is often viewed by teachers as laziness and uncooperative behavior rather than demonstrating the presence of learning problems.

At sixteen, Heather found herself in a battle against depression. Depression is common in the literature addressing the needs of twice exceptional students (Webb et al., 2005; Neihart et al., 2002; Olenchak, 1994; Delisle, 2006; Winner, 1996; Silverman, 1993). This was when her weaknesses emerged and things suddenly fell apart. Depression, and shortly there after the diagnosis of a brain tumor, caused difficulty for Heather in her intellectual studies, resulting in an inability to think in a linear fashion. Heather's physical and emotional life was deteriorating, and her grandmother was dying.

It was a dark period in her life. It was also at sixteen that Heather was diagnosed with AD/HD. AD/HD impacts more children than has been previously thought and it is a common diagnosis for students that are twice exceptional (Kaufman, Kabfleisch, & Castellanos, 2000; Goerss, Amend, Webb, Webb, & Beljan, 2006; Barkley, 2000; Moon, Zentall, Grskovic, Hall, & Stormont-Spurgin, 2001).

Heather experienced problems in college related to the treatment for her tumor, which further exacerbated her ability to concentrate. After the radiation treatment, Heather was not able to survive on less than 14-15 hours of sleep a day. Her college years were peppered with depression, lack of concentration, physical pain, and loss of confidence.

Heather believes she was her greatest inhibitor. She had a hard time accepting everything that was happening to her; however, once she realized that she had to overcome, and that no one else could do it for her, her attitude changed creating a significant turning point for her.

Environmental Facilitators

Heather's parents were a great resource. They exposed her to everything they could in the arts, education, and cultures. They were great facilitators and advocates for her. They pushed her to do the best she could (Bloom, 1985; Goertzel et al., 2004; Winner, 1996; Karnes & Marquardt, 2000). "I don't know exactly how things would have turned out for me if I had a different set of parents," she stated.

Heather was identified gifted at age four. Across her educational journey there were numerous programs and provisions that she participated in which were targeted at her strengths. She attended Saturday and summer enrichment programs. For three

summers she attended a residential summer program in English. Governor's School Latin Academy provided stimulation and challenge along with a network of friendships that she enjoyed. She also participated in dual enrollment in high school, taking courses at a local selective institution of higher learning (Baum et al., 1999; Fox, Tobin & Schiff, 1983; Hirshinuma, 1991; Silverman, 1989, 1993; Suter & Wolf, 1987; Waldron, 1999).

Heather met numerous challenges across her journey. Middle school provided both challenges and adventures. Heather was extremely competitive. In eighth grade while in Latin II, she found herself engaged in competition among three other boys in her class; she wanted to best the smartest boy with the photographic memory. She stayed even with him but pulled ahead by scoring gold on the National Latin Exam. It was in middle school that Heather was exposed to her love of language. She had a very effective and dedicated teacher of French who exposed her to her first living language.

Heather went to public school for her junior and senior years of high school. She remembers a few good teachers sprinkled throughout that time period. She had a great chemistry teacher who inspired her in spite of her deficits in math. This teacher became a confidant for Heather during her time of depression. She enjoyed AP Latin and AP English exams, finding them exhilarating.

Heather obtained a sense of freedom and ownership when she got her driver's license at twenty-one. She had not believed that she would get her license, due to a visual impairment associated with a surgery for an hemangioma that covered the right side of her head when she was young.

Her last two years of college were still fraught with pain and emotional problems. However, the opportunity to direct a small play through the Classics department given to

Heather became a reinvigorating opportunity for her. She felt her confidence returning as she directed the actors and coordinated all the components of the play. The next year she was given a larger play to direct. This activity reminded her of her abilities and gave her some sense of purpose again. She continued to battle pain, but she managed to finish her college degree in August of 2005.

Environmental Inhibitors

From an early age Heather had been challenged by tasks that required precision or psychomotoric skills. She found these to be overwhelming.

Her teachers in her subject of strength were not challenging, and Heather found that she often knew more than her teachers. She was frustrated with this lack of challenge which created conflict between her and her teachers on occasion and in some classes it was difficult. Because of the medication she was taking for her physical problems, it was difficult to stay focused on her schoolwork in high school. .

Block scheduling appeared to inhibit Heather from scoring above a three on her Advanced Placement Exams. She had to remember in May, the subjects she had finished in December. Heather also felt that teachers were engaging in battles with her because of her lack of organizational skills. She continually lost points due to technicalities and was not rewarded for her depth of understanding and presentation. At sixteen Heather was diagnosed with depression and at the same time her grandmother was dying. Heather acknowledges this as a very dark period in her life.

The combination of learning problems and physical maladies served to stymie Heather during her years in college. She had to undergo radiation treatment for a tumor that had been found earlier. This set up a downward spiral for Heather. She had a

negative reaction to the radiation and did not recover from its effects for a year and a half. She was left with severe fatigue after the radiation, sleeping up to fifteen hours a day. Her inability to stay awake for more than four hours at a time caused her to take a reduced load the next semester. The Dean of Student's Office made it difficult for her to get a reduced load that was based on her medical condition. She also had fibromyalgia which kept her in pain anytime she wasn't sleeping. Heather states that her "physical problems were difficult to assess. I didn't know if they were the cause of my pain or if it was the radiation or the depression or the pain. It is hard to tease those things out." During this time, she changed her major from English to Latin. Physical and emotional difficulties were foremost during her college years. She struggled with a tumor, fatigue, and fibromyalgia. September 11 was an additional impacting event during this dark period of her life, further depressing her and causing increased class absences.

Cross Case Thematic Analysis

The similarities across the cases demonstrated both facilitating and inhibiting factors. The first intrapersonal facilitator mentioned by all five students was the role of persistence across the difficult junctures of their educational journey. All used the word "perseverance" which they related to never giving up, not allowing circumstances to defeat them, but overcoming them or finding creative alternatives around the obstacles. Other terms used by the students across the surveys that link to perseverance were determination, strong will, passion, will to conquer adversity, diligence, as well as task commitment. Each student found serious obstacles in learning situations and contexts that required a strong degree of perseverance to continue the effort.

The second facilitator that was common to all five cases was the role of the parent across their educational journey. All stated that their parents were their greatest facilitator but then directly identified the particular parent that was the most facilitating of their victories and their struggles. Three of the students identified their mothers as particularly supportive. Two students stated that the role their father played was particularly important to their success. Each of the parents advocated for their child by making sure they received the services necessary either by accommodations set up in a 504 assistance plan or by their direct intervention in spending large amounts of time and energy at home to help the child become victorious over the several obstacles that most impacted them.

The third facilitator that emerged as similar across all five cases was the theme of volition. The obstacles faced by each of these students were numerous and complex; however, though interwoven with social and emotional issues, each of these students was able to overcome digressions, temptations, boredom, physical catastrophes, and even the battle with his own temperament, as in the case of Don's pervasive depression, to press on in their educational journey. Fueled by sheer will, these students demonstrated strong and on going motivation to reach particular goals.

Teacher support emerged as the fourth environmental facilitator that was similar across the cases. The students were inspired by teachers who helped them to be impassioned by their subject or appreciative of their assistance in overcoming obstacles related to the student's disability. Ultimately, relationships were forged that gained the student's confidence and on some level met a social and affective need for support and acceptance.

Finally, each student had to reevaluate her own abilities, scan the options at her disposal, decide if the path they she was taking is conducive to success based on strengths and weaknesses, and make a change in direction that would facilitate success. All but one student changed majors from the one they originally aspired to when they entered the selective institution of higher learning to an area that fit their particular profile. In some of the cases, the individual evolved in their educational journey to discover their real passion and what they truly wanted to pursue as a vocation.

These five internal and external facilitators were also matched by five intrapersonal or environmental inhibitors that placed unique challenges in the paths of these five young people. The first inhibitor that was consistent across all five cases was the difficulties each one reported in trying to obtain accommodations through the school's Dean of Student's Office. The Disability Office and its staff at this selective institution of higher learning were rigid and required each student, regardless of their disabilities history, to retest to certify their need for accommodations. This was costly to each of the student's parents and caused "angst" on the part of each student, although each student interpreted the resistance differently. Frustration over the inconvenience was mentioned by more than one student. One student would not test for services because he interpreted the rigidity as the office perceiving his disability as a joke. He also felt as if they thought he was just trying to get more time. Another student needed early enrollment because of slow processing speed. He needed to have time and help making his class selection decisions based on the total impact it would have on him so that he could achieve a balanced schedule that would allow him to be successful. The

students all found the Office to be a gatekeeper, inhibiting their progress, rather than a facilitator of their potential.

The second environmental inhibitor that was consistent across the cases was the lack of accommodations at critical junctures in their educational journey. Many of the students did not get accommodations until the end of their senior year or the beginning of college. Gaining accommodations at the collegiate level was difficult, and the accommodations offered in high school were not the accommodations that were necessarily offered in college. Most of the students had a 504 assistance plan that did not transfer to the collegiate level. The key accommodation that each of the students needed was extra time on tests. Each of the cases was dependent on this accommodation for success. Their need for extra time was illuminated by their continued failure until extra time was given, whether at the formative school level or the collegiate level.

Each of the five cases demonstrated a period of time at the collegiate level where their weaknesses were greater than their strengths; however, their various ways of coping with the problem insured victory for their educational journey. This was a watershed moment for each of them. For one it was a semester abroad and returning to admit his need for accommodations and going through the testing process to receive accommodations for his AD/HD. For another, it meant a medical withdrawal for a specified period of time. For another, it meant an intervention by his father to get him through his second semester and then a change of course of study. For one it meant creating a new accommodation that insured her success for the rest of her college experience at this institution.

The fourth inhibitor that impacted these students across their academic journey was time and resources along with time management. All five students worked incredibly hard to overcome time management problems. The nature of their disabilities caused them to need extra time to process information. This was accommodated by extra time on tests and also by the large amount of personal time that they spent on assignments independently. Students with disabilities, even though they are also gifted, are still hindered by the same obstacles all students with disabilities struggle with. Slower reading speed, slower processing speed, slower intake speed, inability to write ideas on paper, the need to verbally restate the learning over and over again, or inability to think in a cogent manner when physical disabilities are at their apex. This list is not exhaustive; however, it does underscore the need for resources that need to be brought to bear on these inhibitors. Programs and provisions must be in place for these students in order for them to stay engaged and navigate the journey successfully and with less emotional turmoil.

Finally, these students lived with a feeling of differentness which often resulted in alienation and despair. Fortunately, the students in this study had parents, teachers, friends, or pastors that were there for them at critical junctures of their educational journey. None of the cases had all of these support figures; however, their motivation and volition mixed with their perseverance and the environmental supports that were available to them, lead to completing their college journey successfully. Just as the cases demonstrated similarities in respect to facilitators and inhibitors in the talent development process, they also established uniqueness. The first of these unique facilitators was the coping mechanism of a particular student with his failure. Daniel

floundered his first semester of his sophomore year due to his unwillingness to submit to the testing requirements of the college in order to receive the accommodations he needed. His unique way of dealing with this was to take a semester away and study abroad. It ended up being just the right coping mechanism for him. He was inspired by the college environment in Australia and the value that was placed on achievement, based not on perfectionism but based on the valuing of the content to be learned. This time away, also provided Daniel with time to think about his college experience in the United States and reevaluate what he needed to do to be successful and pull his GPA up.

Don demonstrated role of mentorship as a unique model for finding a career path. Don struggled throughout his educational journey with depression and a sense of not belonging. He struggled the first semester of his freshman year with academics and ended up changing his major when he reevaluated his skills, his resources, and his disabilities; however, during his sophomore year, Don established his first real community of fellowship, at a nearby church where the pastor of the church became his teacher and his mentor. An epiphany of faith and a discovery of his true talent, which was writing and sharing with others, led him to begin his journey into his new calling to the ministry. Don found himself, a community of friends and a calling at this juncture of his educational journey.

Daniel represents yet another unique voice in this study regarding intrapersonal facilitators. Although Daniel thinks his best coping strategy was discovered in high school; he believes that his metacognitive understanding of his need to take notes was an epiphany and an effective coping strategy for him to battle his AD/HD and its inherent lack of attention and distractibility. Daniel's story is also filled with the responsibility he

feels to engage people, make them like him, and keep the lines of communication open so that he is always seen in a favorable light, regardless of his deficiencies.

Heather is a unique case in that she demonstrates the opposite coping strategy that Daniel used. Her way of coping and navigating her disabilities was to be oppositional with her teachers. She challenged authority on their knowledge of their subject throughout her formative years. Heather admits that in most cases she knew more about the subject than her teachers did and chose to use that information inappropriately.

Sabrina presents as a mathematically gifted student with severe dyslexia accompanied by an auditory processing disorder. She faced problems continually over her need for reading accommodations, because her high intelligence and perseverance masked her disability. Sabrina's mother was her confidant, her friend, and her advocate. She fought with Sabrina to win what she truly deserved; the right to be disabled and excel. The combination still baffles those who have come in contact with Sabrina. She recently received her acceptance to Veterinary School at Virginia Tech.

Heather reveals to the reader the complexity of multiple disabilities and how they impact cognition. She lets us glimpse into her world of multiple disabilities including physical impairment, and depression, and the unique intersection of depression, pain and learning problems that caused turmoil during her later years of high school and throughout her college experience. Her loss of ability to think cogently, which caused her to be unable to write the papers that college required, was a difficult setback in her educational journey; however, Heather's sense of her "gifted self" never was completely lost in the cacophony of her life experience. This sense of self allowed her to express that giftedness through directing plays. Now she feels like the master of her own destiny as

she teaches high school Latin and has empathy and compassion for those students who remind her of herself.

Lastly, Alyssa demonstrates what accrues from a lack of accommodations when a student feels the deep loss of her sense of giftedness. Alyssa was one of those invisible children; the ones that have disabilities that are masked by high ability. All through elementary school, Alyssa excelled: however, as the work became more demanding, she struggled meeting those demands within the time frame she was given. It was a mystery to her. She felt as if she had become dumber over time. Her journey through middle school and into high school was like falling into a well that just got deeper and deeper. The schools she attended would not test her because her grades were high. No one saw the perfectionism sustaining the determination she needed to study enough to keep her grades high. Finally, after finishing high school, her mother had her tested privately. Alyssa was found to have multiple learning disabilities. She had an undetermined learning disability, dyslexia, slow processing speed, and AD/HD. She ended up having to change majors at her current selective institution of higher educational. How would things have been different if she had been diagnosed and accommodated sooner?

Conclusion

The five case studies offer the reader a picture into the educational journey of twice exceptional students and the factors that impacted them to facilitate or inhibit their journey. Each case offers a unique perspective, illuminating how they perceived internal and external events as they impacted on them from kindergarten through their junior or senior year of college. Similar inhibitors and facilitators were related across varying backdrops of personal events. It is clear from these stories, that successful twice

exceptional students are dependent upon parents and accommodations in order to successfully navigate the numerous understandings about their strengths and their weaknesses. These twice exceptional students represented a population of learning disabled students that demonstrate high motivation and volition that drive them past the boundaries of their disabilities.

Chapter Six: Conclusions, Discussion, and Implications of the Study

Conclusion and Discussion

It is clear that there is unity in the diversity of these students' experiences. The facilitating themes that evolved from the study are 1) the importance of the role of the parent in negotiating successful experiences for successful twice exceptional students, 2) the importance of accommodations for successful twice exceptional students, 3) the importance of personal and study-based strategies, 4) the importance of motivation and volition, perseverance and determination, and lastly 5) the ability of the student to use moments of extreme challenge to reevaluate their goals and choose paths based on self-reflection in their personal strengths and weaknesses.

The idea of the role of the parent has been found consistently in the research. It is appropriate that this theme would emerge, given its extreme importance in the lives of these young people (Cox et al., 1985; Bloom 1985; Goertzel et al., 2004; Winner, 1996; Karnes & Marquardt, 2000). Bloom (1985) describes the role of parents who have been significant facilitators for those who have been successful in the talent development journey. "The parents organized their time and established priorities as a means of pursuing a variety of activities while expressing the belief that 'if it's worth doing, it's worth doing well. (p. 440)" Another large study on talented adolescents was Czikszenmihalyi et al. (1997) study of talented teenagers. His study broadened the context of parent to family. He found that "families providing both support and challenge enhance the development of talent" (p.247). This is confirmed by the narratives of each of the case studies. Three students directly stated that without their parents they have no idea where they would be today.

The need for accommodations is the second theme that emerged from the data. This is based in the research both on strategies and interventions as well as programs and provisions. Silverman (2003) provides a list of 14 different strategies or accommodations to use with twice exceptional students. Others in the field who have addressed accommodations are: (Baum & Owen, 2004; Brody & Mills, 1997; Fox, Tobin & Schiff, 1983; Hishinuma, 1991; Nielson & Higgins, 2005; Olenchak & Reis, 2002; Suter & Wolf, 1987; Weinfeld, Barnes-Robinson, Jewler & Shevitz, 2006; Waldron, 1999). These researchers have synthesized accommodations for the twice exceptional students that focus on the following: (1) Supply opportunities for hands-on testing, (2) Use graphic organizers to help these students see the big picture, (3) Apply differentiated instruction (content, process, and product/assessment) techniques, (4) Provide direct instruction in skills that are affected by the disability (such as verbal and written expression, organization), (5) Allow for the use of assistive technology where appropriate (such as text read by computer), (6) Make modifications that allow for student success (such as keyboarding, spell check), (7) Provide necessary accommodations (such as extended test/work time, working in a quiet or less distracting environment, use of assistive technology), (8) Provide direct instruction in study skills and learning strategies, (9) Promote student self-determination by working with students to develop knowledge, skills, and beliefs necessary for increasing self-understanding and autonomy (such as self-advocacy, goal setting).

These types of accommodations proved to be pivotal in the lives of students in this study. One student, along with her parent, stated that environment along with

accommodations were important for the student, it made the difference between passing and failure. The key was providing modifications that promoted students success.

The third theme was personal and study-based practices. This is also addressed in the literature on accommodations; however, Reis' (2000) list of compensation strategies used by gifted students with learning disabilities would be more targeted at personal and study-based practices. In this study she looked at the compensation strategies (accommodations) used by college age twice exceptional students. She groups them into three categories: 1) study and performance strategies, 2) cognitive/learning strategies, and 3) compensation supports. Some of the strategies were note taking, time management, memory strategies, word processing, books on tape, memory strategies such as mnemonics and rehearsal using flashcards and chunking information into smaller units for mastery (p.129).

Research in the field surrounding the concept of perseverance supported the fourth theme that emerged. Several authors address this characteristic. "These highly successful adults emphasize their potential to achieve rather than stress the deficits of the disability. Factors such as persistence, self-confidence, the will to conquer adversity, and strong character have been cited as contributing to the success of individuals with disabilities" (Maker, 1984). In other literature on twice exceptional students, perseverance is seen as the will to conquer adversity (Baum, 1996; Maker, 1984; Czikszenmihalyi, 1990; Neihart et al., 2002). Czikszenmihalyi (1999) relates that "two variables that differentiate talented students from average peers are certain personality and cognitive characteristics. In particular, talented students are distinguished by a strong

need for achievement, by endurance, and by high aptitude for academic performance as indexed by PSAT scores” (p. 207).

The last theme that emerged was the ability of the student to use moments of extreme challenge to reevaluate their goals and choose paths based on self-reflection in their personal strengths and weaknesses as key strengths. This theme was unique to the setting and cannot be directly found in literature; however, there does exist literature on metacognition, decision making, and even flexibility as key strengths of gifted students (Sternberg, 1985; Shore, 1987). None of this literature, however, is directed to twice exceptional students.

Five inhibiting themes emerged from the data, giving a glimpse of the issues twice exceptional students struggle with while they traverse their educational journey. The issues were: 1) role of the Disability Office as gatekeepers, 2) late identification of learning disabilities, 3) feelings of differentness, isolation, and despair, 4) lack of accommodations at crucial junctures, and 5) issues related to time and resource management.

The first inhibitor that emerged was that of the role of the Disability Office gatekeepers. This is a unique finding which has not been mentioned in any research to date. It is an environmental inhibitor and suggests that the agency assisting these students in order to determine whether students were awarded or denied appropriate accommodations was perceived by the students as “hard edged” or “not very helpful.”

Secondly, students in these case studies were inhibited due to being predominantly identified with their disability late in the high school process, even though

their giftedness was identified early. Baum (1990) provides perspective on this issue when she states:

“This group is easily identified as gifted because of high achievement or by high IQ scores. As they grow older, discrepancies widen between expected and actual performance. In middle school or high school, when there are more long-term written assignment and a heavier emphasis on comprehensive, independent reading, some bright students find it increasingly difficult to achieve. Concerned adults are convinced that if these students would only try harder, they could succeed (p. 1).

This is a “puzzling paradox” that confounds both the teacher and the student. Alyssa stated this conundrum in her own words. “I felt like over time I was getting stupider.” The opposite effect for these students is that learning disabilities and giftedness interweave, creating a situation where they are neither identified as gifted or identified with a learning disability (Brody & Mills, 1997) This leveling effect by the two exceptionalities does not serve the student well across the educational journey, since they often appear average. Teachers have a difficult time teasing out the one from the other. Interacting with this conundrum is the fact that it “appears to be a well kept secret that a child can be both gifted and handicapped. This is due to the prevailing view that equates giftedness with high levels of performance in all academic areas. Teachers often find it incomprehensible that a child could have difficulty learning to read and still be gifted” (Wolf & Gygi, 1981, p. 21).

Other authors who speak to the twice exceptional challenge, speak to the social and emotional consequences of having exceptional abilities, when one or both of them

can be pervasive and quite debilitating, as well as difficult to address if appropriate diagnosis and programming never take place or are delayed until adolescence (Baum et al., 1991; Durden & Tangherlini, 1993; Fox, Brody, & Tobin, 1980).

The third inhibiting factor uncovered in this study was the lack of accommodations at critical junctures. Across the cases, acquiring accommodations at critical junctures was problematic at each transition from one phase of the educational journey to the next, particularly from the secondary level through college. The research is strong regarding the need for accommodations for twice exceptional students (Baum et al., 1999; Fox, Tobin, & Schiff, 1983; Hishinuma, 1991; Silverman, 1989; Suter & Wolf, 1987; Waldron, 1999). It was suggested earlier that one of the challenges surrounding diagnosis and programming of twice exceptional students was that when it was delayed until adolescence the consequences could generate social and emotional problems (Baum et al., 1991; Durden & Tangherlini, 1993; Fox, Brody, & Tobin, 1980).

The fourth inhibiting factor was the students' feelings of differentness, alienation, and despair. "This interaction of both the positive and the negative characteristics of the interaction of giftedness with learning disabilities may cause emotional development or behavioral difficulties (Schiff, Kaufman, Kaufman, 1999), social isolation through withdrawal or aggressive behavior, (Meisgeier, Meisgeier, & Werblo, 1978), suicidal tendencies (Yewchuk & Jobagy, 1992), avoidance of academic and social involvement because of powerful fear of failure or rejection (Vespi & Yewchuk, 1992), psychologically painful school experiences (Reis, Neu, & McGuire, 1997), and external locus of control, field dependence, poor achievement motivation and learned helplessness (1991).

These social and emotional difficulties interfere with their ability to make friends and sustain social relationships. These differences can often be linked to educational difficulties as well as social isolation (Reis & Colbert, 2004). “Vulnerability to isolation and loneliness has been found in this population, which are many times precursors to depression and anxiety” (Kaiser & Berndt, 1986; Jackson, 1998; Kline & Short, 1992; Neihart, 2002).

The last inhibitor for the students across the case studies was the issue of time and resource management. A comprehensive study of learning specialists’ logs by McGuire, Hall, and Litt (1991) discovered specific areas that were commonly addressed in a successful university program for twice exceptional students. These included study strategies, course-related performance strategies, counseling, and self-advocacy training. Time management, as an objective, occurred more often than any other study strategy. “Time management has been found to depend on students’ abilities to self-monitor their activities and make appropriate decisions based upon awareness of the extra time required to complete academic tasks in the areas of the specific disability” (Reis et al., 2000). The activities associated with time management were the use of a one-month organizer and semester overview calendars. Methods of intervention varied, based on the student’s needs. Some monitored on a daily basis, some weekly in order to maximize the students’ use of time (McGuire, Hall, and Litt, 1991).

The study also revealed eight cases that were unique regarding facilitators and inhibitors of talent development. Table 10 visually presents the data from the cross case thematic analysis. The first facilitator was elucidated by Don, who due to his relationship with his pastor found in him a model for a career path. The second facilitator was

articulated across the interview by Don who also recreated himself during his college experience. He discovered a sense of himself through a faith encounter and through this resolved his frustrations with feeling alone and isolated most of his life. Through this faith journey he has been able to establish his first community of friends and ultimately discovered his personal gifts that have led him to pursue a calling in the ministry.

Another unique facilitator was Daniel's trip abroad following a frustrating semester at the beginning of his sophomore year. He returned his junior year more focused and ready to test for accommodations that his disability warranted in order to get the extra time he needed on tests. He also had a change of perception about the purpose of general education classes and was able to set aside some of his drive to maintain high grades. Daniel was an extreme people-pleaser, which could be seen as both a facilitator and as an inhibitor. His ability to engage others and hold himself responsible for the type of relationship he had with those in authority served to keep others engaged with him and willing to give him the resources he was trying to garner. The negative side of this was Daniel's reluctance to express his disagreement and disappointment with those in authority.

Heather represents the use of a unique coping mechanism that of oppositional defiance to establish her place in the classroom and school. Heather carved out her sense of importance and belonging by challenging those in authority. Yet Heather's combination of being multiply disabled in both cognitive and physical dimensions represented a set of unique inhibitory conditions.

Sabrina's severe dyslexia paired with her extremely high IQ was a unique combination. The amount of work that Sabrina has had to engage in to compensate for

this disability has been enormous. Her perseverance and the support she has had from an involved parent have combined to cause success where failure could have prevailed.

Alyssa represents the last unique inhibitor of a lost sense of giftedness when she laments that she felt like she became more and more disabled over time. She did not understand the increasing rigor and her increased need for more time on task as she moved from elementary to secondary education. This caused her to blame herself, when the system should have identified her disability earlier.

Implications for Practice

The first implication for the practitioner and the educational system from this study was the need for better understanding of twice exceptionality in order to enhance sensitivity for these high potential students and their need for accommodations. The students in this study demonstrated the need for extra time for processing and completing tests and assignments, an area that schools and teachers are not always responsive to.

It is also necessary for practitioners to understand the importance of working closely with the parents of twice exceptional students. Parents are keenly aware of their child's strengths and weaknesses. We do a great disservice to the students when we do not gain the insight that parents have regarding them. A united front between the parent and the school would help provide targeted emotional and educational support for the students.

Given the strong emphasis revealed in the study on the role of the parent, the educational system should develop networks of support for those students who do not have strong parental support. Within school support groups, peer mentors, instructional mentors, and big brothers and sisters programs are possible starts for these children.

Another implication for practice was an emphasis on learning addressed both to the disability and the ability of the student. It is imperative that the student's strengths get the greater emphasis. Teachers need to challenge students in their areas of strengths while supporting them in their areas of weakness. Neither can be ignored; however, the word "challenge" highlights what the study reveals about twice exceptional students thriving on challenge in their area of strength.

Also revealed in this study is the role that teachers play in fostering relationships that are based in the understanding of the student's strengths and weaknesses. Students look to the gatekeepers of knowledge to be respectful of them as individuals and work with them to create more effective ways to help them stay engaged in learning.

A further implication of this research is the need for the practitioner to pay close attention to students who show signs of perfectionism or who spend hours on homework with little to show for it. The students in this study spent an incredible amount of time, without accommodations, due to not being identified with disabilities until late in their academic career. An accommodation as simple as extra time on tests could mean the difference between success and failure. Also, practitioners need to be made aware of the hallmarks of twice exceptional students to enable them to ask targeted questions about student ability and performance.

The last implication from the research was the preponderance of students who were identified early as gifted, even when their learning disability was undetected. It was significant that most of these students were allowed to work in the area of their strengths, which undoubtedly gave them the motivation to compensate and work tirelessly to

overcome their disability. This suggests that high ability students should be allowed to work in their areas of giftedness even if they are identified for special education services.

Implications for Research

One of the implications for research from these multiple case studies would be an exploratory study designed to elucidate the experiences of parents of twice exceptional students. Hearing from the students has allowed us insight into the life of the student via their story. Parents have a story to tell us about their journey with these diverse children. They have, in the instance of this case study, been the primary and most influential facilitator of the students' success. Much, therefore, can be learned from targeting this audience.

Another research study would be a prospective study of recently identified twice exceptional students in respect to cognitive and social emotional dimensions of their functioning at the point of identification and onward. Understanding the interplay of high ability, disability, and social and emotional issues as they unfold would further develop the understanding of the complexities of these students.

To understand the impact of twice exceptionality on talent development over the lifespan, a longitudinal study of successful twice exceptional students through age 40 would be beneficial. How does twice exceptionality impact work, marriage, parenting, etc?

Moreover, research might verify some of the key characteristics of twice exceptional students through the creation and validation of a scale for characteristics of twice exceptional students that could be used at the elementary level, the age range when

these students are more likely to be identified. Practitioners need more knowledge and tools in hand to both understand and identify these students.

A final study might be in the arena of counseling interventions with twice exceptional students at the middle school level. Middle school is a stage filled with social and emotional turmoil for students without twice exceptionality and is only compounded by the presence of high ability with an impacting disability. This type of study would test the effectiveness of counseling to be targeted to the problems experienced by twice exceptional students.

Table 10: Cross Case Thematic Analysis (n= 5)

Similarities	Across all cases	Differences (Unique to one case)
Facilitator	How many Cases?	Facilitator
<ul style="list-style-type: none"> • The role of Persistence 	5	<ul style="list-style-type: none"> • Mentioned a Model for a Career Path (Don)
<ul style="list-style-type: none"> • The Role of Parents 	5	<ul style="list-style-type: none"> • Recreated Self (found self and community and calling) (Don)
<ul style="list-style-type: none"> • Accommodations (e.g. extra time, preferential seating) 	5	<ul style="list-style-type: none"> • Studied Abroad for a Semester (Daniel)
<ul style="list-style-type: none"> • Teacher Support and Positive Regard 	5	<ul style="list-style-type: none"> • People Pleasing (coping strategy to gain acceptance) (Daniel)
<ul style="list-style-type: none"> • Strong Volition 	5	
<ul style="list-style-type: none"> • Change of major and/or career path 	4	
		Inhibitor
Inhibitor	5	
<ul style="list-style-type: none"> • Disabilities Office Gate Keeping 		<ul style="list-style-type: none"> • People Pleasing (coping strategy to gain acceptance) (Daniel)
<ul style="list-style-type: none"> • Lack of Identification of Disabilities and Early Identification of Giftedness 	5	<ul style="list-style-type: none"> • Oppositional Defiant (as a coping behavior) (Heather)
<ul style="list-style-type: none"> • Lack of Accommodations at Critical Junctures 	5	<ul style="list-style-type: none"> • Severe Dyslexia (Sabrina)
<ul style="list-style-type: none"> • Feelings of Differentness, Alienation, Despair 	5	<ul style="list-style-type: none"> • Multiply Disabled in a Cognitive and Physical Direction (Heather)
<ul style="list-style-type: none"> • Time and Resource Management 	5	<ul style="list-style-type: none"> • Lost Sense of Giftedness (Alyssa)

BIBLIOGRAPHY

- Aaron, P. G., Phillips, S., & Larsen, S. (1988). Specific reading disability in historically famous persons. *Journal of Learning Disabilities*, 21, 523-538.
- Abrams, J. C. (1986). On learning disabilities: Affective considerations. *Journal of Reading, Writing, & LD.*, 2, 189-196
- Abroms, K. J. (1985). Social giftedness and its relationship with intellectual giftedness. In J. Freeman (ed). *The Psychology of Gifted Children: Perspectives on Development and Education* (pp. 210-218). New York: Wiley.
- American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Fourth Edition, Text Revision (DSM-IV-TR)*. Washington, DC: American Psychiatric Association.
- Arnold, K. D. (1995). *Lives of promise: What becomes of high school valedictorians*. San Francisco: Jossey Bass.
- Arnold, K. D., Noble, K. D., & Subotnik, R. F. (1996). *Remarkable women: perspectives on female talent development*. Cresskill, NJ: Hampton.
- Attwood, T. (1998). *Asperger's syndrome: A guide for parents and professionals*. London: Jessica Kingsley Publishers.
- Baldwin, A. Y., & Vialle, W. (1999). *The many faces of giftedness: Lifting the masks*. Belmont, CA: Wadsworth.
- Barkley, R. (1998). *Attention-Deficit: Hyperactive disorder: A handbook for Diagnosis & treatment*. (2nd Edition). New York: Guilford Press.
- Barkley, R. A. (2000). *Taking charge of AD/HD*. New York: Guildford.
- Barkley, R. A. (1990). *Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment*. New York: Guildford Press.

- Barnett, L. B. & Juhasz, S. E. (2001, Fall). The Johns Hopkins University talent searches today. *Gifted and Talented International*, 20, 96-99.
- Barton, J. M., & Starnes, W. T. (1989). Identifying distinguishing characteristics of gifted and talented/learning disabled students. *Roeper Review*, 12, 23-29.
- Baum, S. (1984). Meeting the needs of learning disabled gifted students. *Roeper Review*, 7, 16-19.
- Baum, S. (1985). *Learning disabled students with superior cognitive abilities: A validation study of descriptive behaviors*. Unpublished doctoral dissertation, University of Connecticut, Storrs.
- Baum, S., & Kirshenbaum, R. (1984). Recognizing special talents in LD students, *Teaching Exceptional Children*, 16(2), 92-98.
- Baum, S., Olenchak, F., & Owen, S. (1998). Gifted students with attention deficits: Fact of fiction? Or can we see the forests for the trees. *Gifted Child Quarterly*, 42(2), 96-104.
- Baum, S. & Owens, S. V. (1988). High ability/learning disabled students: How are they different? *Gifted Child Quarterly*, 32, 231-326.
- Baum, S. (1990). *Gifted but learning disabled: A puzzling paradox*. Reston, VA: ERIC Clearinghouse on Handicapped and Gifted Children. ERIC Identifier: ED321484.
- Baum S. (1994). Meeting the needs of gifted/learning disabled students. *The Journal of Secondary Gifted Education*, 5(3), p. 6-16.
- Baum, S. M., Owen, S. V., & Dixon, J. (1991). *To be gifted & learning disabled*. Mansfield Center, CT: Creative Learning Press.

- Baum S., & Owen, S. (2004). *To be gifted and learning disabled: Strategies for helping bright students with LD, ADHD, and more*. Mansfield, CT: Creative Learning Press.
- Baum, S. M., Reis, S. M., and Maxfield, L. D. (Eds.) (1998). *Nurturing the gifts and talents of primary grade students*. Mansfield Center, CT: Creative Learning Press.
- Baum S., Renzulli, J., & Herbert, T. (1999). Revising under-achievement; Stories of success. *Educational Leadership*, 52(3), 48-52.
- Beckley, D. (1998, Sept.). Gifted and learning disabled: Twice exceptional Students. Learning Disabilities On Line. Internet Available:
http://www.ldonline.org/ld_indept/gt_ld/nrcgt.html.
- Bees, C. (1998). The GOLD program: A program for gifted learning disabled adolescents. *Roeper Review*, 21, 155-161.
- Beljan, P., Psy. D., Olenchak, F. R., Ph. D. (2005). *Misdiagnosis and dual diagnoses of gifted children and adults: ADHD, Bipolar, OCD, Asperger's, Depression, and other disorders*. Scottsdale, AR: Great Potential Press, Inc.
- Bender, W. N. & Wall, M. E. (1994). Socio-emotional development of students with LD. *LD Quarterly*, 17, 323-341
- Biederman, J., Faraone, S. V. and Lapey, K. (1992a). Comorbidity of diagnosis in attention-deficit hyperactivity disorder. *Child and Adolescent Psychiatric Clinics of North America* 1, 335-360.
- Biederman, J., Faraone, S.V., Keenan, K. et al. (1992b) Further evidence for Family-genetic risk factors in attention deficit hyperactivity disorder (ADHD patterns) of comorbidity in probands and relatives in psychiatrically and peditrically referred samples. *Archives of General Psychiatry* 49, 728-738.

- Biederman, J., Faraone, S. V., Mick, E., et al. (1996). Attention deficit hyperactivity in juvenile mania: An overlooked comorbidity? *Journal of American Academy Of Child and Adolescent Psychiatry* 35, 997-1008.
- Blacher, J. PhD. (2002). Twice-Exceptional: Learning disabled and gifted. *EP Magazine*. Internet Available:
http://www.eparent.com/researchreflections/researchreflections_09_02.html
- Binet, A. & Simon, T. (1916). *The intelligence of the feeble minded*. Baltimore: Williams and Williams.
- Bireley, M. (1991). The paradoxical needs of the disabled gifted. In M. Bireley & J. Genshaft (Eds.), *Understanding the Gifted Adolescent* (pp. 163-175). New York: Teachers College Press.
- Bireley, M. (1995). *Crossover children: A sourcebook for helping children who are gifted and learning disabled*. Arlington, VA: Council for Exceptional Children.
- Bireley, M., Laguis, M., & Williamson, T. (1992). Physiological uniqueness: A new Perspective on the learning disabled/gifted child. *Roeper Review*, 15, 101-107.
- Bish, C. E. (1961). The academically talented. *National Education Association Journal*, 50(2), 33-37.
- Bloom, B. S. (Ed.) (1985). *Developing talent in young people*. New York: Ballantine Books.
- Borg, W. R., & Gall, M. D. (1989). *Educational research*. New York: Longman.
- Boodoo, G. M., Bradley, L. L., Frontera, R. L., Pitts, J. R., & Wright, L. B. (1989). A survey of procedures used for identifying gifted learning disabled children. *Gifted Child Quarterly*, 33, 110-114.
- Borland, J. H. (19889). *Planning and implementing programs for the gifted*. New York: Teachers College Press.

- Borland J. H. (2003). *Rethinking gifted education*. New York, NY: Teachers College Press.
- Brinkerhoff, O. B., Shaw, S. F., & McGuire, J. M. (1993). *Promoting postsecondary education for students with learning disabilities: A handbook for practitioners*. Austin, TX: PRO-ED.
- Brody, L. E. & Mills, C. J. (1997, May-June). Gifted children with learning disabilities: A review of the issues. *Journal of Learning Disabilities*, 30(3), pp. 282-286.
- Brody, L. E. (2001, Fall). The talent search model for meeting the academic needs of gifted and talented students. *Gifted and Talented International*, 20(99-111)
- Bronfenbrenner, U. (1979). *The ecology of human development: experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Brown-Mizuno, C. (1990). Success strategies for learners who are learning disabled-gifted children. *Exceptional Child*, 30, 226-229.
- Bryant, D. P., Vaughn, S., Linan-Thompson, S., Ugel, N., & Hougen, M. (2000). Reading outcomes for students with and without reading disabilities in general education middle school content area classes. *Learning Disabilities Quarterly*, 23(4), 238-252.
- Carlson, S. (2005). *A two hundred year history of learning disabilities*. Regis University.
- Chermak, G. D., & Burgerud, D. M. (1983). Receptive language of gifted and learning Disabled-gifted. *Exceptional Child*, 30, 226-229.
- Clark, B. (2002). *Growing up gifted*. Upper Saddle River, NJ: Pearson Education, Inc..
- Clark, B., (1992). 4th ed. *Growing up gifted: Developing the potential of children at home and at school*, New York: Macmillan.

- Clements, C., Lundell, F., & Hishinuma, E. S. (1994). Serving the gifted dyslexic & gifted at risk. *Gifted Child Today*, 17(4), 12-14, 16-17, 36-37.
- Cline, S., & Schwartz, D. (1999). *Diverse populations of gifted children*. NJ: Merrill. In Colangelo, N., & Davis, G. A. (Eds.) (2003). *Handbook of gifted education*, 3rd edition. Boston: Allyn & Bacon.
- Coleman, M. R. (1992). A comparison of how gifted/LD and average/LD boys cope with school frustration. *Journal for the Education of the Gifted*, 15, 230-265.
- Coleman, M. R. (2001). Surviving or thriving? Gifted middle school boys with learning disabilities. *Gifted Child Today Magazine*. Internet Available:
http://www.ldonline.org/ld_indepth/gt_ld/surviving_or_thriving.html
- Corn, A. L. & Henderson, L. (2001, Summer). Twice-exceptional students. *Gifted Child Today Magazine*. Internet Available:
http://www.findarticles.com/cf_dls/m0HRV/3_24/77608103/print.html
- Cox, J., Daniel, N., & Boston, B. O. (1985). *Educating able learners. Programs and promising practices*. Austin: University of Texas Press.
- Creswell, J. W. (1994). *Research design: Qualitative & Quantitative Approaches*. Thousand Oaks, CA: Sage Publications.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications, Inc.
- Cross, T. L. (2004). *On the social and emotional lives of gifted children: Issues and factors in their psychological development*. Waco, Texas: Prufrock Press, Inc.
- Cruickshank, W., Bertzen, F., Ratzeburg, & Anhauser, M. (1961). *A teaching method for brain-injured and hyperactive students*. Syracuse, NY: Syracuse University Press.

- Cruickshank, W. (1963). *Psychology of exceptional children and youth* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Cruickshank, W. (1967). *The brain injured child in home, school and community*. Syracuse, NY: Syracuse University Press.
- Csikszentmihalyi, M., Rathunder, K., & Whalen, S. (1993). *Talented teenagers: the roots of success and failure*. Cambridge, UK: Cambridge University Press.
- Czikszentmihalyi, M. (1990). The domain of creativity. In M. A. Runco & R. S. Albert (Eds.). *Theories of creativity* (pp. 190-212). Newbury Park, CA: Sage.
- Dabrowski, K. (1964). *Positive disintegration*. London: Little Brown
- Dabrowski, K. (1972). *Psychoneurosis is not an illness*. London: Gryf.
- Dabrowski, K., & Piechowski, M. M. (1977). *Theory of levels of emotional development* (Vols. 1 & 2). Oceanside, NY: Dabor Science.
- Daniels, P. R. (1983). *Teaching the gifted/learning disabled child*. Rockville, MD: Aspen.
- Davis, G. A., & Rimm, S. B. (1998). *Education of the gifted and talented* (4th ed.). Boston: Allyn & Bacon.
- Delisle, J. & Galbraith, J. (2002). *When gifted kids don't have all the answers: how to meet their social and emotional needs*. Minneapolis, MN: Free Spirit Publishing, Inc.
- Delisle, J. R. (2006). *Parenting gifted kids: tips for raising happy and successful children*. Waco, TX: Prufrock Press.
- Deshler, D. D. (1984). Academic and cognitive interventions for LD adolescents: Part 1. *Journal of Learning Disabilities*, 17, 108-117.
- Deshler, D. D., Ellis, E. S., & Lenz, B. K. (1996). *Teaching adolescents with learning disabilities*. Denver: Love.

- Deshler, D. D., & Schumaker, J. B. (1993). Strategy mastery by at-risk students: Not a simple matter. *The Elementary School Journal*, 94, 153-167.
- Deshler, D. D., Schumaker, J. B., Alley, G. R., Warner, M. M., & Clark, F. L. (1982). Learning disabilities in adolescent and young adult populations. Research implications. *Focus on Exceptional Children*, 15(1), 1-12.
- Deshler, D., Schumaker, J., Bulgren, J., Lenz, K., Jantzen, J., Adams, G., Carnine, D., Grossen, B., Davis, B., & Marquis, J. (2001). Making learning easier: Connecting new knowledge to things students already know. *Teaching Exceptional Children*, 33(4), 82-85.
- Dole, S. (2000). Concerning the risk placed on children with LDs who are gifted. *Roeper Review*: In Blacher, J. PhD. Twice-Exceptional: Learning disabled and gifted. EP Magazine. Internet Available: http://www.eparent.com/researchreflections/researchreflections_09_02.htm.
- Dole, S. (200). The implications of the risk and resilience literature for gifted students with learning disabilities. *Roeper Review*, 23, 91-96.
- Durden, W. G., & Tangherlini, A. E. (1993). *Smart kids – How academic talents are developed & nurtured in America*. Toronto: Hogrefe & Huber Publishing Co.
- Duesenberg, D. A. (M.D.) (2003). Manifestation of functional impairments and outcomes across domains. *The Primary Care Companion to the Journal of Clinical Psychiatry. PCC Visuals*, Vol. 2(3).
- Dweck, C. S. (2000). *Self theories: Their role in motivation, personality and child development*. Philadelphia: Psychology Press.
- Elkind, J. (1973). The gifted child with learning disabilities. *Gifted Child Quarterly*, 17, 96-97.

- Ellis, E. S. (1993). A learning strategy for meeting the writing demands of secondary mainstream classrooms. *The Alabama Council for Exceptional Children Journal*, 10(1), 21-38.
- Ellis, E. S., Deshler, D. D., Lenz, B. K., Schumaker, J. B., & Clark, F. L. (1991). An instructional model for teaching and learning strategies. *Focus on Exceptional Children*, 23(6), 1-24.
- Ellis-Schwabe, M., & Conroy. (1983). A discussion of the creative abilities of learning disabled, gifted, and learning disabled/gifted children. *Journal for the Education of the Gifted*, 6, 218-221.
- Elliston, T. (1993). Gifted and learning disabled. . . a paradox? *Gifted Child Today*, 16(1). 17-19.
- Erickson, E. H. (1967). *Childhood and society*. New York: Norton.
- Ericsson, K. A. (Ed.) (1996). *The road to excellence: The acquisition of expert Performance in the arts and sciences, sports, and games*. Mahwah, NJ: Erlbaum.
- Ericsson, K. A., & Charmes, N. (1994). Expert performance: Its structure and acquisition. *American Psychologist*, 49 (8), 725-747.
- Fafard, M. B., & Haubrich, P. A. (1981). Vocational and social adjustment of learning disabled young adults: A follow-up study. *Learning Disability Quarterly*, 4, 122-130.
- Ferri, B. A., & Gregg, N. (1997). Profiles of college students demonstrating learning disabilities with and without giftedness. *Journal of Learning Disabilities*, 30, 552-559.
- Fetzer, E. A. (2000). The gifted/learning-disabled child. *Gifted Child Today*, 23(4), 44-50.

- Fiedler, E. D. (1999). Gifted children: Promise of potential/the problems of potential. In V. L. Schwean & D. H. Saklofske (Eds.), *Handbook of psychosocial characteristics of exceptional children* (pp. 401-441). New York: Kluwer Academic/Plenum.
- Fink, R. (1998). Literacy development in successful men and women with dyslexia. *Annals of Dyslexia*, 48, 311-347.
- Francks, C., Fisher, S. E., Olson, R. K., Pennington, B. F., Smith, S. D., DeFries, J. C., & Monaco, A. P. (2002). Fine mapping of the chromosome 2p12-16 dyslexia susceptibility focus: Quantitative association analysis and positional candidate genes SEMA4F and OTX1, *Psychiatric Genetics*, 12, 35-42.
- French, J. N. (1982). The gifted learning disabled child: A challenge and some Suggestions. *Roeper Review*, 4(3), 19-21.
- Feldhusen, J. F. (1986). A conception of giftedness. In R. Sternberg & J. L Davidson, (Eds.), *Conceptions of giftedness* (pp. 112-127). New York: Cambridge University Press.
- Feldhusen, J., (1994). Talent development as an alternative to gifted education. *Journal of Secondary Gifted Education*, 5 (2), 5-9.
- Feldhusen J., (1995, Summer). Talent development vs. gifted education. *Educational Forum*, 59, 346-349.
- Feldhusen, J., (1995, December). Talent development: The new direction in gifted education. *Roeper Review*, 18, 92-97.
- Feldhusen, J. F. (1998). Programs for the gifted few or talent development for many? *Phi Delta Kappan*, 79 (10). 735-738.

- Feldhusen, J. F., & Moon, S. M. (1995). The educational continuum and delivery of services. In J. Genshaft, M. Birely, & C. L. Hollinger, (Eds.), *Serving gifted and talented students: A resource for school personnel*. (pp. 103-121). Austin, TX: Pro-Ed.
- Feldman, D. H., with Goldsmith, L. (1986). *Nature's gambit: Child prodigies and the development of human potential*. New York: Basic Books.
- Feldman, D. H. (1991, Autumn). Has there been a paradigm shift in gifted? *Educating Able Learners*, 14-18.
- Feldman, D. (2000). Developmental theory and the expression of gifts and education and talents. In C.V. M. van Lieshout & P. G. Heymans (Eds), *Developing talent across the Life-Span: A Festschrift for Franz Monks*. Hove, UK: Psychology Press.
- Feldman, D. (1992). Has there been a paradigm shift in gifted education? In N. Colangelo, S. Assouline, & D Ambroson (Eds.), *Talent development: proceedings from the 1991 Henry B. and Jocelyn Wallace National Research Symposium on Talent Development* (pp. 89-94). Unionville, NY: Trillium Press.
- Feldhusen, J. F. (1992). Talent development the new directions in gifted education. *Roeper Review*.
- Feldhusen, J. F. (1993). Talent Development in education. *Communicator; the Journal of the California Association for gifted*. 23(4), 35-38.
- Feldhusen, J. F. (1995). Talent development vs. gifted education. *The Educational Forum*. 59 (4) 346-349.
- Ford, D. Y. (1996). *Reversing underachievement among gifted black students: Promising programs and practices*, New York: Teachers College Press.

- Ford, D. Y. & Harris, J. J. (1999). *Multicultural gifted education*. New York, NY: Teachers College Press.
- Fox, L. H., Tobin, D., & Schiffman, B. B. (1983). Adaptive methods and techniques for learning –disabled/gifted children. In L. H. Fox, L. Brody, & D. Tobin (Eds.). *Learning disabled/gifted children: Identification and Programming*. (183-193). Austin, TX: PRO-ED.
- Fox, L. H., Brody, L., & Tobin, D. (1983). *Learning disabled/gifted children: identification and programming*. Austin, TX: PRO-ED.
- Frasier, M. M. (1991). Disadvantaged and culturally diverse gifted students. *Journal for the Education of the Gifted*, 14 (3), 234-245.
- Freud, S. (1975). Creative writers and daydreaming. In P. E. Vernon (Ed.), *Creativity*. Harmondsworth: Penguin.
- Friedman, R. C., & Guy, T. D. (1987). *Attention deficit disorder and hyperactivity*. Danville, IL: Interstat Printers and Publishers.
- Friedman, R. C., & Rogers, K. B. (Eds.) (1998). *Talent in context: Historical and social perspectives on giftedness*. Washington, DC: American Psychological Association.
- Friedman, R. C., & Shore, B. M. (Eds.) (2000). *Talents unfolding: Cognition and development*. Washington, DC. American Psychological Association.
- Fristan, M. A., Topolosky, S., Weller, E. B., & Welles, R. A. (1992). Depression and learning disabled children. *Journal of Affective Disorders*, 26, 53-58.
- Fulkerson, J. L., & Horvich, M. (1998). Talent development: Two perspectives. *Phi Delta Kappan*, 79 (10), 756-759.
- Fullan, M. (1991). *The new meaning of educational change*. New York: Teachers College Press.

- Gagne, F. (1985). Giftedness and talent: re-examination of the definitions. *Gifted Child Quarterly*, 29, 103-112.
- Gagne, F. (1993). Constructs and models pertaining to exceptional abilities. In: K. A. Heller, F. J. Monks & A. H. Passow (Eds), *Handbook of International Research and Development of Giftedness and talent*, Oxford: (pp. 67-69). Pergamon.
- Gagné, F. (1995, Summer). Hidden meanings of the “talent development” concept, *Educational Forum*, 59, 350-362.
- Gagné, F. (1995, December). From giftedness to talent: A developmental model and its impact on the language in the field. *Roeper Review*, 18, 103-111.
- Gagné, F. (1997). Critique of Morelock’s (1996) definitions of giftedness and Talent *Roeper Review*, 20, 76-85
- .Gagné, F. k (1997, December). Much more than a semantic glitch: A rejoinder to Morelock’s response. *Roeper Review*, 20, 87-88.
- Gagne, F. (2000). Understanding the complex choreography of talent development through DMGT-based analysis. In Heller, K.A., Monks, F. J., Sternberg, R. J., & Subotnik, R. F. *International Handbook of Giftedness and Talent* (2nd Edition) pp. 67-79. Oxford: Pergamon.
- Galaburda, A. M. (1993). Neuroanatomic basis of developmental dyslexia. *Neurologic Clinics*, 11, 161-173.
- Galbraith, J., Delisle, J., & Espeland, P. (1996). *Gifted kids survival guide: A teen handbook*, Minneapolis, MN: Free Spirit Publishing.
- Gallagher, J. (1988). National agenda for educating gifted students: Statement of priorities. *Exceptional Children*, 55(2), 107-114.

- Gallagher, J. (2000). Changing paradigms for gifted education in the United States. In Heller, K.A., Monks, F. J., Sternberg, R. J., & Subotnik, R. F. *International Handbook of Giftedness and Talent* (2nd Edition) pp. 681-693, Oxford: Pergamon.
- Gallagher, J. & Courtright, R. D. (1986). The educational definition of giftedness and its policy implications. In Sternberg, R. & Davidson, J. (Eds.) *Conceptions of Giftedness*. New York: Cambridge University Press.
- Galton, F. (1883). *Inquiry into human faculty and its development*. London: MacMillan Press.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Gardner, H. (1993). *Creating minds: An anatomy of creativity seen through the Lives of Freud, Einstein, Picasso, Stravinsky, Elliot, Graham, and Gandhi*. New York: Basic Books.
- Gardner, H. (1987). Beyond IQ: Education and human development. *Harvard Educational Review*, 57(2) 187-198.
- Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: Basic Books.
- Gerber, D. J., & Reiff, H. B. (1991). *Speaking for themselves: Ethnographic interviews with adults with learning disabilities*. Ann Arbor, MI: University of Michigan Press.
- Gerber, D. J., Ginsburg, R., & Reiff, H. B. (1992). Identifying alterable patterns in employment success for highly successful adults with learning disabilities. *Journal of Learning Disabilities*, 25, 475-487.

- Gerken, K. C. (1979). An unseen minority: handicapped individuals who are Gifted and talented. In: N. Colangelo & R. T. Zaffrann (Eds.), *New Voices in Counseling the Gifted* (pp. 321-325). Dubuque, IA: Kendall/Hunt.
- Goertzel, V., Goertzel, V., & Goertzel, T. G. (2004) *300 eminent personalities*. San Francisco: Jossey-Bass.
- Goertzel, V., & Goertzel, M. (1962). *Cradles of eminence*. Boston: Little Brown.
- Goh, B. E. (1993). Developing creative talents: Guidelines for training programs, *Gifted Child Quarterly*,
- Goh, B. E. (1994). The role of the mentor. *The Journal of Secondary Gifted Education*, 5 (2), 44-47.
- Goldstein, S. & Goldstein, M. (1992). *Hyperactivity: Why won't my child pay attention?* New York: Wiley.
- Good, R. H., & Kaminski, R. A. (Eds.). (2002). *Dynamic indicators of basic early literacy skills (6th ed.)*. Eugene, OR: Institute for the Development of Education Achievement. Retrieved November 28, 2004, from <http://dibels, uroregon.edu/>.
- Gorman, J. C. (1999, Jan/Feb). Understanding children's hearts and minds: Emotional functioning and learning disabilities. *Teaching Exceptional Children*, 31(3), 72-77.
- Gottesman, R. L. (1978). Follow-up study of reading achievement in learning disabled children. *ERIC Document Reproduction Service* ED155883.
- Gottesman, R. L. (1979). Follow-up of learning disabled children. *Learning Disability Quarterly*, 2, 60-80.
- Gould, S. J. (1981). *The mismeasure of man*. New York: W.W. Norton.
- Grandin, T. (1995). *Thinking in pictures*. New York: Doubleday.

- Grimm, J. (1998). The participation of gifted students with disabilities in gifted programs. *Roeper Review*, 20 (4), 285-286.
- Gross, M. U. M. (1993). Exceptionally gifted children. New York: Routledge. The gifted/learning disabled student. *Gifted Child Quarterly*, 31, 158-160.
- Gunderson, C. W., Maesch, C., & Rees, J. W. (1987). The gifted/learning disabled student. *Gifted Child Quarterly*, 31, 158-160.
- Hallahan, D. P. & Cruickshank, W. M. (1973). *Psychoeducational foundations of learning disabled*. Englewood Cliffs, NJ: Prentice-Hall.
- Hallahan, D. P., & Kauffman, J. (2000). Exceptional learners: *Introduction to special education*. Needham Heights, MA: Allyn & Bacon.
- Hallahan, D. P., Kauffman, J. M., & Ball, D. W. (1973). Selective attention and Cognitive tempo of low achieving and high achieving sixth grade males. *Perceptual and Motor Skills*, 36, 579-583.
- Hallahan, D. P., & Mercer, C. D. (2001). Learning disabilities, historical perspectives. Executive Summary. Retrieved 11 April. 2007 from the wwweb: <http://www.air.org: rdsummit>.
- Hallahan, D. P. & Mercer, C. D. (2001/Aug). *Learning disabilities: Historical perspectives Executive Summary*. Paper presented at the Learning Disabilities Summit Building a Foundation for the Future. Washington, D.C.
- Hansen, J. B., & Hoover, S. M. (Eds.). (1994). *Talent development: Theories and practice*. Dubuque, IA: Kendall-Hunt.
- Harry, B., Struges, K. M., & Klingner, J. K. (2005). Mapping the process: An exemplar of process and challenge in grounded theory analysis. *Educational Researchers*, 34(2), 3-13.

- Havighurst, R. J., Stivers, E., & DeHaan, R. F. (1955). *A survey of education of gifted children*. Chicago: University of Chicago Press.
- Hellendoorn, J., & Ruijsenaars, W. (1998). Dutch adults with learning disabilities viewed by themselves. *Thalamus*, 16, 65-76.
- Heller, K. A. (1989). Perspectives on diagnosis of giftedness. *The German Journal of Psychology*, 13, 140-159.
- Heller K. A. (1990). Goals, methods and first results from the Munich longitudinal study of giftedness in West Germany. In: C. W. Taylor (Ed.), *Expanding Awareness of Creative Potentials Worldwide* (pp. 538-543).
- Heller, K. A. (1991). The nature and development of giftedness: a longitudinal study. *European Journal for High Ability*, 2 174-188.
- Heller K. A. & Hany, E. A. (1986). Psychologische Modelle der Hochbegabtenforderung. [Psychological Models of Gifted Education]. In F.E.Weinert (Ed.), *Psychologie des Lernens und der Instruktion, Bd. 2 der Padagogischen Psychologie (Enzykloadie der PSychologie)* (pp. 477-513). Göttingen: Hogrefe.
- Heller, K. A., Monks, F. J., Sternberg, R. J., & Subotnik, R. F. (2000). *International Handbook of Giftedness and Talent*. New York, NY: Pergamon.
- Henderson, S. (1995). *College freshman with disabilities: a triennial statistical profile*. Washington, D.C.: American Council on Education.
- Hernstein, R. J. & Murray, C. (1994). *The bell curve: intelligence and class structure in American life*. New York: Free Press.
- Hiebert, B., Wong, B., & Hunter, M. (1982). Affective influences in LD adolescents. *Learning Disabilities Quarterly*, 5(4), 334 -343.

- Higgins, D., Baldwin, L. & Pereles, D. (2000). Comparison of students with and without disabilities. Unpublished manuscript.
- Hishinuma, E. S. (1991). ASSETS school: Serving needs of the gifted learning disabled. *Gifted Child Today*, 14(5), 36-38.
- Hishinuma, E. S. (1993). Counseling gifted/at risk and gifted/dyslexic youngsters. *Gifted Child Today*, 16(1), 30-33.
- Hollingworth, L. S. (1926). *Gifted children: Their nature and nurture*. New York: Macmillan.
- Hollingworth, L. S. (1942). *Children above 180 IQ*. New York: McGraw-Hill.
- Howe, J. J. A. (1990). The origins of exceptional abilities. Cambridge, MA: Blackwell.
- Howell, K. (1986). Direct assessment of academic performance. *School Psychology Review*, 15, 324-335.
- Huntley, L. B. (1990). Setting up SHOP: A program for gifted learning disabled students. *Gifted Child Today*, 13(4), 52-56.
- Johnson, L., Karnes, M. & Carr, V. (1997). Providing services to children with gifts and disabilities: a critical need. In: N. Colangelo & G Davis (Eds.), *Handbook of Gifted Education* (2nd ed.). (pp. 516-527). Boston: Allyn & Bacon.
- Jackson, N. E. (1988). An exceptional approach to exceptionality. *Contemporary Psychology*, 33, 976-977.
- Johnson, L. J., Karnes, M. B., & Carr, V. W. (1997). Providing services to children with gifts and disabilities: A critical need. In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (2nd ed., pp. 516-527). Boston: Allyn & Bacon.
- Kaiser, C. F. & Berndt, D. J. (1986). Predictors of loneliness in gifted adolescents. *Gifted Child Quarterly*, 29, 74-77.
- Kaiser, C. R., & Berndt, D. J. (1985). Predictors of loneliness in the gifted adolescent.

Gifted Child Quarterly, 29(2), 74-77.

- Karnes, M. B., & Johnson, L. J. (1991). *Gifted handicapped*. In N. Colangelo & G. A. Davis (Eds.), *Handbook of Gifted Education*. (pp. 428 – 437). Boston: Allyn & Bacon.
- Karnes, F. A., & Marquardt, R. G. (1994). *Gifted children and the law: Mediation, due process, and court cases*. Scottsdale, AZ: Gifted Psychology Press.
- Karnes, F. A., & Marquardt, R. G. (2000). *Gifted children and legal issues: An update*. Scottsdale, AZ: Gifted Psychology Press.
- Kaufmann, F., Kalbfleisch, M. L., & Castellanos, F. X. (2000). *Attention deficit disorders and gifted students: What do we really know?* Storrs, CT: National Research Center on the Gifted and Talented, University Connecticut.
- Kavale, K. A. (1988). The long-term consequences of learning disabilities. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), *Handbook of special education, Volume II* (pp. 303-344). Oxford, UK: Pergamon Press.
- Kavale, K. A., Forness, S. R., & Bender, M. (1988). Adult outcomes. In K A Kavale, S. R. Forness, & M. Bender (Eds.), *Handbook of learning disabilities, Volume III: Programs and practices* (pp. 199-218). Boston, MA: College-Hill Publication.
- Kay, K. Ed. (2000). *Uniquely gifted: Identifying and meeting the needs of twice-exceptional students*. Gilsum, NH: Avocus Publishing, Inc.
- Kephart, N. C. (1975). *The slow learner in the classroom*. Columbus, OH: Merrill.
- Kerr, B. A. (1997). *Smart girls: A new psychology of girls, women and giftedness (3rd revised ed.)* Scottsdale, AZ: Gifted Psychology Press.
- Kerr, B. A. & Cohn, S. J. (2001). *Smart boys: Talent, manhood, and the search for meaning*. Scottsdale, AZ: Great Potential Press.

- Kirk, S. (1961). Behavioral diagnosis & remediation of learning disabilities. In Conference on Exploration into the problems of Perceptually Handicapped Children. (pp. 1-7). Evanston, IL: Fund for Perceptually Handicapped Children.
- Kline, B. E. & Short, E. B. (1992). Changes in emotional resilience: Gifted adolescent females. *Roeper Review*, 13, 118-121)
- Klingner, J. K., & Vaughn, S. (1998). Using collaborative strategic reading: Teaching *Exceptional Children*, 30(6), 32-37.
- Lahey, B. B., Miller, T. L., Gordon, R. A., & Riley, A. W. (1999). Developmental epidemiology of the disruptive behavior disorders. In H. C. Quay & A. E. Hogan (Eds.), *Handbook of disruptive behavior disorders* (pp. 23-48). New York: Plenum Press.
- Landrum, T. J. (1989). Gifted and learning disabled students: Practical considerations for teachers. *Academic Therapy*, 24, 533-545.
- Landrum, M. S., Callahan, C. M. & Shaklee, B. D. (2001). *Aiming for excellence: Gifted program standards*. Waco, TX: Prufrock Press, Inc.
- Lincoln, Y. S. (1995). Emerging criteria for quality in qualitative and interpretive research. *Qualitative Inquiry*, 1(1), 275-289.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Thousand Oaks, CA: Sage.
- Lloyd, J. W., & deBettencourt, L. U. (1982). *Academic strategy training: A manual for teachers*. Charlottesville: University of Virginia, Learning Disabilities Research Institute, Curry School of Education.
- Lovecky, D. V. (1993). Out of sync with everyone. *Understanding Our Gifted*. 5(5a) 3.
- Lovecky, D. V. (1994, July/August). The hidden gifted learner. *Understanding Our Gifted*. 3, 18.

- Lovecky, D. V. (2005). *Different minds: Gifted children with AD/HD, Asperger's Syndrome, and other learning deficits*. Philadelphia, PA: Jessica Kingsley Publishers.
- Lovitt, T. C. (1967). Assessment of children with learning disabilities. *Exceptional Children*, 44, 233-239.
- Lupart, J. L. (1990). An in-depth assessment model for gifted/learning disabled students. *Canadian Journal of Special Education*, 6(1), 1-14.
- Lupart, J. L. (1998). Setting right the delusion of inclusion: implications for Canadian schools. *Canadian Journal of Education*, 23(3), 251-264.
- Lupart, J. L., McKeough, A. & Yewchuk, C. (Eds.) (1996). *Schools in transition: rethinking regular and special education*. Scarborough, ON: Nelson.
- Major-Kingsley, S. (1982). *Learning disabled boys as young adults: Achievement, adjustment and aspirations*. Unpublished doctoral dissertation. Los Angeles, CA: University of California.
- Maker, C. J. (1977). *Providing programs for the gifted handicapped*. Reston, VA: CEC.
- Maker, C. J. (1978). *The self-perception of successful handicapped scientists*. Washington, D.C.: U. S. Department of Health, Education & Welfare, Office of Education, Bureau of the Education for the Handicapped (Grant No. 600-7701[905]).
- Maker, C. J. & Grossi, J. (1984). *The gifted and talented handicapped*. (ERIC Document, ED 262 522).
- Maker, C. J. & Udall, A. J. (n.d.) Giftedness and learning disabilities. *Learning Disabilities On Line*. Internet Available:
http://www.ldonline.org/ld_indepth/gt_ld/eric_digest427.html.

- Manaster & Powell. (1983). A framework for understanding gifted adolescents psychological maladjustment. *Roeper Review*, 6(2), 70-72.
- Marland, S. P. (1972). *Education of the gifted and talented: Report to the Congress of the United States by the U. S. Commissioner of Education*. Washington: U. S. Government Printing Office.
- Mausser, A. J. (1981). Programming strategies for pupils with disabilities who are gifted. *Rehabilitation Literature*, 42, 270-275.
- McCoach, D. B., Kehle, T. J., Bray, M. A., & Siegle, D. (2004). Best practices in the identification of gifted students with learning disabilities. *Psychology In Schools*, 38, 403-411.
- McCarthy, M. M., Cambron-McCabe, N. H., Thomas, S. B. (1998). *Public School Law, 4th Edition*. Needham Heights, MA: Allyn & Bacon.
- McEachern, A. G., & Bornot, J. (2001). Gifted students with learning disabilities: Implications and strategies for school counselors. *Professional School Counselor*, 5, 34-41.
- McGuire, J. M., Hall, D., & Litt, A. V. (1991). A field-based study of the direct service Needs of college students with learning disabilities. *Journal of College Student Development*, 32, 101-108.
- McGuire, J. M., Shaw, S. F., & Anderson, P. (1991). A field-based study of the direct Service needs of college students with learning disabilities. *Journal of College Student Development*, 32, 101-108.
- Meisgeier, C., Meisgeier, C. & Werblo, D. (1978). Factors compounding the handicapping of some gifted children. *Gifted Child Quarterly*, 22 (3), 325-331.
- Mendaglio, S. (1995, July/August). Children who are gifted/ADHD. *Gifted Child Today*, 18, 37-38.

- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass Publishers.
- Minner, S. (1990). Teacher evaluation of case descriptions of LD gifted children. *Gifted Child Quarterly*, 34(1), 37-39.
- Mooney, J., & Cole, D., & Hallowell, E. M. (2000). *Learning outside the lines: Two ivy league students with learning disabilities and ADHD give you the tools for academic success and educational revolution*, New York, NY: Fireside.
- Monks, F. J. (1992a). Development of gifted children: The issue of identification and programming. In: F. J. Monks & W. A. M. Peters (Eds), *Talent for the Future* (pp. 191-202). Assen/Maastricht, The Netherlands: Van Gorcum.
- Monks, F. J. & Mason, E. J. (2000). Developmental psychology and giftedness: theories and research. In: K.A. Heller, F. J. Monks, R. J. Sternberg, & R. F. Subotnik. *International Handbook of Giftedness and Talent (2nd Edition)*. Oxford: Pergamon.
- Montgomery, D. (2003). *Gifted and talented children with special educational needs: Double exceptionality*. London: David Fulton Publishers.
- Moon, S. M. (2002). Gifted children with attention deficit/hyperactivity disorder. In M. Neihart, S. M. Reis, N. M. Robinson & S. M. Moon (Eds.), *The social and emotional development of gifted children: What do we know?* (pp. 193-201). Waco, TX: Prufrock Press.
- Moon, S.M., Zentall, S. S., Grskovic, J. A., Hall, A., & Stormont, M. (2001). Social and emotional characteristics of boys with AD/HD and/or giftedness: A comparative case study. *Journal for the Education of the Gifted* 24(3), 207-247.
- Mooney, J. & Cole, D. (2000). *Learning outside the lines*. New York, NY: Fireside.

- Morelock, M. J. and Feldman, D. H. (1992). The assessment of giftedness in preschool children. In E. V. Nuttall, I. Romero, and J. Kalesnik (Eds). *Assessing and Screening Preschoolers* (pp. 310-309). Needham Heights, MA: Allyn and Bacon.
- Morelock, M. J. (1996, September). On the nature of giftedness and talent: imposing order on chaos. *Roeper Review*, 19, 4-12.
- Morelock, M. J. (1997, December). In response to Gagné's critique. *Roeper Review*, 20, 85-87.
- Morelock, M. J. (1997, December). A semantic glitch with major implications. *Roeper Review*, 20, 88-89.
- National Education on Time and Learning (1994). *Prisoners of Time*. Washington, D. C.
- Author Rogers, K. B. (1998). Using current research to make "good" decisions About grouping. *NASSP Bulletin*, 82 (595), 38-46.
- Neihart, M. (1998). The impact of giftedness on psychological well-being: What does the empirical literature say? *Roeper Review*, 22, 10-17.
- Neihart, M., Reis, S., Robinson, N., & Moon S. M. (Eds.). (2002) *The social and emotional development of gifted children: What do we know?* (pp. 103-112). Waco, TX: Prufrock.
- Neilsen, M. E. (2002). Gifted students with learning disabilities: Recommendation for identification and programming. *Exceptionality*, 10, 93-111.
- Neilsen, M. E., & Higgins, L. D. (2005). The eye of the storm: Services and programs for twice exceptional learners. *Teaching Exceptional Children*, 38, 8-15.
- Neilsen, M. E., Higgins, L. D., & Hammond, A. (1995). *Twice exceptional learners: Gifted students with disabilities*. Albuquerque: University of New Mexico.

- Neumeister, K. L. S. (2004). Understanding the relationship between perfectionism and achievement motivation in gifted college students. *Gifted Child Quarterly*, 48, 219-230.
- National Science Board (1983). *Educating Americans for the 21st century*. Washington, DC: National Science Foundation. .National Education Commission on Time and Learning. (1994). Prisoners of Time.
- Nelson, K. C. (1989). Dabrowski's theory of positive disintegration. *Advanced Development*. 1, 1-14.
- Neihart, M., Reis, S. M., Robinson, N. M., & Moon, S. M. (2002). *The social and emotional development of gifted children: What do we know?* Waco, Texas: Prufrock Press, Inc.
- Neihart, M., Reis, S. M., Robinson, N. M., & Moon, S. M. (2002). *The social and emotional development of gifted children. What do we know?* Washington, DC: National Association for Gifted Children.
- Neilsen, M. E. & Mortorff-Albert, S. (1989). The effect of special education service on the self-concept and school attitude of learning disabled/gifted students. *Roeper Review*, 12 (1), 29-36.
- Neilson, M. E. et al. (1993, Sept.-Oct.). Gifted children with disabilities. *Gifted Child Today*, 16(5), 9-12.
- Neilson, M. E., Hammond, a. E., & Higgins, L. D. (n.d.). *The twice-exceptional project: Identifying and serving gifted/handicapped learners*. In C. M. Callahan, C. A. Tomlinson, & P. M Pizzat (Eds.), (pp. 145-168). Charlottesville, VA: The National Research Center on the Gifted and Talented, University of Virginia.

- Neu, T., & Baum, S. (1995, April). *Project high hopes: Developing talent in gifted students with special needs*. Paper presented at the annual conference of The Council for Exceptional Children, Indiana polis, IN.
- Nowak, M. PhD. *Pain, waste, and the hope for a better future: Invisible disabilities in the educational system*. New Horizons for Learning. Internet Available: <http://www.newhorizons.org/spneeds/inclusion/information/nowak1.html>.
- Nowak, M. PhD. (2003) *Double inequity, redoubled critique: Twice-exceptional (gifted + learning disabled) students, the equality ideal, and the reward structure of the educational system*. New Horizons for Learning. Internet Available: <http://www.newhorizons.org/spneeds/gifted/nowak3.html>.
- Office of Disabilities, The College of William and Mary (2005). Disability Services [Data file]. Available from the Office of the Dean of Students Web site, <http://www.wm.edu/deanofstudents/disable/notif.php>.
- Olenchak, F. R. (1994). Talent Development: Accommodating the social and emotional needs of secondary gifted/LD students. *Journal of Secondary Education*. 5(3), 40 – 52.
- Olenchak, F. R. (1995). Effects of enrichment on gifted LD students. *Journal for the Education of the Gifted*, 18(4) 385-399.
- Olenchak, F. R., & Reis, S. M. (2002). Gifted students with learning disabilities. In (M. Neihart, S. Reis, N. Robinson, & S. Moon, Eds.). *The social and emotional Needs of gifted children: What do we know?*. Washington, DC: National Association for Gifted Children.
- Olszewski-Kubilius, P. (2003). Special summer and Saturday programs for gifted students In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (3rd ed.) (219-228). Boston: Allyn & Bacon.

- Passow, A. H., Monks, F. J. & Heller, K. A. (1993). *International handbook of research and development of giftedness and talent*. Oxford: Pergamon.
- Passow, A. H., Goldberg, M. L., Tannenbaum, A. J., & French, W. (1955). *Planning for talented youth*. New York: Teachers College Press.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods*. Thousand Oaks, CA: Sage Publications.
- Peck, M. (1985). *Crisis intervention with chronically and acutely suicidal adolescents*. In M. Peck, N. L. Farberow, & R. E. Litman (Eds.), *Youth Suicide* (pp. 112-122). New York: Springer.
- Pellegrino, J. W. & Glaser, R. (1979). Cognitive correlates and components in the analysis of individual differences. *Intelligence*. 3, 187-214.
- Pendarvis, E. D. & Grossi, J. A. (1980). Designing and operating programs for the gifted and talented handicapped. In J. B. Jordan & J. A. Grossi (Eds.), *An Administrator's Handbook on Designing Programs for the Gifted and Talented* (pp. 66-88). Reston, VA: CEC.
- Pereleth, CH. & Heller, K. A. (1994). The Munich Longitudinal Study of Giftedness. In: R. F. Subotnik & K. D. Arnold (Eds), *Beyond Terman: Contemporary Longitudinal Studies of Giftedness and Talent* (pp. 77-114). Norwood, NJ: Ablex, 2nd ed.
- Peterson, C. L., Caverly, D. C., Nicholson, S. A., O'Neal, S., & Cusenbary, S. (2000). *Building reading proficiency at the secondary school level: A guide to resources*, Austin, TX: Southwest Texas State University, Southwest Educational Development Laboratory. Retrieved December 20, 2001 from <http://www.sedl.org/pubs/index.cgi?l=item7ld-read16>

- Phelan, T. W. (2000) 2nd Ed. All about attention deficit disorder: symptoms diagnosis and treatment. Children and Adults. Glenn Ellyn, IL: Child Management Inc.
- Piaget, J. (1967). *Biologie et connaissance [Biology and understanding]*. Paris: Gailimard.
- Piechowski, M. M. (1986). The concept of developmental potential. *Roepers Review*, 8(3), 190-197.
- Piechowski, M. M. (1991). Emotional development and emotional giftedness. In N. Colangelo & G. Davis (Eds.), *Handbook of Gifted Education*. Needham Heights, MA: Allyn & Bacon.
- Piechowski, M. M. & Colangelo, N. (1984). Developmental potential of the gifted. *Gifted Child Quarterly*, 28, 80-88.
- Piirto, J. (1999). *Talented children and adults: Their development and education*. Upper Saddle River, NJ: Prentice-Hall, Inc.
- Pledge, T. K. (1982). Giftedness among handicapped children: identification and programming development. *Journal of Special Education*, 16(2), 221-227.
- Plomin, R. (1995). Nature, nurture, and intelligence. In: M. W. Katzkp & F. J. Monks (Eds). *Nurturing Talent: Individual Needs and Social Ability*. Assen, The Netherlands; van Gorcum.
- Plomin, R. & Petrill, S. A. (1997). Genetics and intelligence: What's new? *Intelligence*, 24 (1), 53-77.
- Ramirez-Smith. (1997). *Mistaken identity: Gifted and AD/HD*. Reston, VA: The Council fro Exceptional Children (ERIC Document Reproduction No. ED413690.

- Raskind, M. H., Goldberg, R. J., Higgins, E. L., & Herman, K. L. (1999). Patterns of change and predictors of success in individuals with learning disabilities: Results from a twenty-year longitudinal study. *Learning Disabilities Research & Practice*, 14, 35-49.
- Reiff, H. B., Gerber, P. J., & Ginsberg, R. (1994). Instructional strategies for long-term success. *Annals of Dyslexia*, 44, 270-288.
- Reiff, H. B., Gerber, P. J., & Ginsberg, R. (1996). What successful adults with learning disabilities can tell us about teaching children. *Teaching Exceptional Children*, Nov/Dec., 10-16.
- Reis, S. M., & Renzulli, J. S. (1991). The reform movement and the quiet crisis in gifted education. *Gifted Child Quarterly*, 35, 26-35.
- Reis, S. M., Neu, T. W., & McGuire, J. M. (1995). *Talents in two places: Case studies of high ability students with learning disabilities who have achieved* (Research Monograph 95114). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.
- Reis, S. M., McGuire, J. M., & Neu, T. W. (2000). Compensation strategies used by high-ability students with learning disabilities who succeed in college. *Gifted Child Quarterly*, 44(2), 123-34.
- Reis, S. M., & Colbert, R. (2004, Dec). Counseling needs of academically talented students with learning disabilities. *Professional School Counseling*, 8(2), p. 156.
- Renzulli, J. (1977). *The enrichment triad model*. Mansfield Center, CT: Creative Learning Press.
- Renzulli, J. S. (1978). What makes giftedness? Reexamining a definition. *Phi Delta Kappan*, 60, 180-184, 261.

- Renzulli, J. S. (1986). The tree-ring conception of giftedness: A developmental model for creative productivity. In R. J. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (pp. 53-92). Cambridge, MA: Cambridge University Press.
- Renzulli, J. S. (1990). "Torturing data until they confess": an analysis of the analysis of the three-ring conception of giftedness. *Journal for the Education of the Gifted*, 13 (4), 309-331.
- Renzulli, J. S. (1997). The total talent portfolio: Looking at the best in every student. *Gifted Education International*, 12, 58-63.
- Richards, R. G. (2002). Memory strategies for students. Retrieved March 1, 2003, from http://www.ldonline.org/ld_indepth/teaching_techniques/memory_strategies.html
- Robinson, S. M. (1999). Meeting the needs of students who are gifted and have learning disabilities. *Interventions in School and Clinic*, 34, 195-204.
- Robinson, N. M., Reis, S. M., Neihart, M., & Moon, S. M. (2002). Social and emotional issues facing gifted and talented students: What have we learned and what should we do now? In M. Neihart, S. M. Reis, N. M. Robinson & S. M. Moon (Eds.), *The social and emotional development of gifted children: What do we know?* (pp. 267-289). Waco, TX: Prufrock Press.
- Robinson, N., Sigler, E., & Gallagher, J. J. (2000). Two tails of the normal curve: Similarities and differences in the study of mental retardation and giftedness. *American Psychologist*, 55 (12), pp. 1413-1424.
- Roedell, W. C. (1989). Early development of gifted children. In J. VanTassel-Baska and P. Olszewski-Kubilius (Eds) *Patterns of Influence on Gifted Learners: The Home, the self, and the school* (pp. 13-28). New York: Teachers College Press.
- Roedell, W. C. (1985). Developing social competence in gifted pre-school children. *Remedial and Special Education*, 6(4), 6-11.

- Rogers, K. B. (2001). *Re-forming gifted education: Matching the program to the Child*. Scottsdale, AZ: Great Potential Press.
- Rosner, S. L. & Seymour, J. (1983). The gifted child with a learning disability: Clinical evidence. In: L. H. Fox, L. Brody & D. Tobin (Eds.), *Learning-Disabled/Gifted Children* (pp. 77-97). Baltimore, MD: University Park Press. Ross P. (Ed.). *National Excellence*. Washington DC: U. S. Department of Education.
- Rosselli, H. C. (1998, Fall). From Passow to Gardner: Curriculum for talent development. *Gifted Child Quarterly*, 42, 245-252.
- Rubin, J. J. & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data*, 2nd Edition. Thousand Oaks, CA: Sage Publications.
- Russo, C. J., Ford, D. Y., & Harris, III, J. J. (1993). The educational rights of gifted students: Lost in the legal shuffle? *Roeper Review*, 16(1), 67-71.
- Schiff, M. M., Kaufman, A. S., & Kaufman, N. L. (1981). Scatter analysis of WISC-R profiles for learning disabled children with superior intelligence. *Journal Of Learning Disabilities*, 14, 400-404.
- Seligman, M. E. (1975). *Helplessness: On depression, development and death*. San Francisco: Freeman.
- Schumaker, J. B., Deshler, D. D., & McKnight, P. C. (1991). Teaching routines for content areas at the secondary level. In G. Storer, M. R. Shinn, & H. M. Walker (Eds.), *Interventions for achievement and behavior problems* (pp. 473-494). Washington, DC: National Association of School Psychologists.

- Schumaker, J. G., & Deshler, D. D. (1992). Validation of learning strategy interventions for students with learning disabilities: Results of a programmatic research effort. In B. Y. L. Wong (Ed.), *Contemporary intervention research in learning disabilities: An international perspective* (pp. 22-46). New York: Springer-Verlag.
- Schumaker, J. B., & Deshler, D. D. (1995). Secondary classes can be inclusive, too. *Educational Leadership*, 52(4), 50-51.
- Schumaker, J. B., & Deshler, D. D. (2003). Can students with LD become competent writers? *Learning Disabilities Quarterly*, 26(2), 129-141.
- Schumaker, J. B., & Deshler, D. D. (in press). Teaching adolescents to be strategic learners. In D. D. Deshler & J. B. Schumaker (Eds.), *High school students with disabilities: Strategies for accessing the curriculum*, New York: Corwin Press.
- Schunk, D. (1991). Self-efficacy and academic motivation. *Journal of Educational Psychology*, 26, 337-345.
- Schwandt, T A. (1994) Theory for the moral sciences: Crisis of identity and purpose. In D. J. Flinders and G. E. Mills (Eds.), *Theory and Concepts in Qualitative Research*. New York: Teacher College Press, 1993.
- Seagoe, M. (1974). Some learning characteristics of gifted children. In R. Martinson. (Ed.), *The identification of gifted and talent*, Ventura, CA: Office of the Ventura County Superintendent of Schools.
- Seligman, M. E. & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 56, 216-217.
- Shaw, S. F., Brinckerhoff, L. C., Kistler, J. K., & McGuire, J. M. (1992). Preparing students with learning disabilities for post secondary education; Issues and future needs. *Learning Disabilities*, 2(1), 21-26.

- Shaywitz, B. A., Shaywitz, S. E., Blachman, B. A., Pugh, K. R., Fulbright, R. K., Skudlarski, P., et al. (2004). Development of left occipitotemporal systems for skilled reading in children after a phonologically based intervention. *Biological Psychiatry*, 55, 926-933.
- Shore, B. M., Dover, A. C. (1987). Metacognition, intelligence & giftedness. *Gifted Child Quarterly*, 31, 37-39.
- Shore, B. G. M., Cornell, D. G., Robinson, A., & Ward, V. S. (1991). *Recommended practices in gifted education: A critical analysis*. New York: Teachers College Press.
- Silverman, L. (2000). In K. Kay (Ed.). *Uniquely Gifted: Identifying and meeting the needs of twice exceptional learners*. Gilsum, NH: Avocus.
- Silverman, L. (1989). Invisible gifts; invisible handicaps. *Roeper Review*, 13(1), 37-42.
- Silverman, L. (1989). Twice exceptional children, twice exceptional students. *Roeper Review*, 12 (1), 37-42.
- Silverman, L. K. (1993). *Counseling the gifted and talented*. Denver: Love Publishing.
- Silverman, L. K. (2002). *Upside-down brilliance: The visual-spatial learner*. Denver, CO: DeLeon Publishing.
- Simonton, D. K. (1994). *Greatness: Who makes history and why*. New York: Guilford Press.
- Simonton, D. K. (1999). *Origins of Genius*. New York, NY: Oxford University Press.
- Simos, P. G., Fletcher, J. M., Bergman, E., Breier, J. I., Foorman, B. R., Castillo, E. M., et al. (2002). Dyslexia-specific brain activation profile becomes normal following successful remedial training. *Neurology*, 58, 1203-1213.

- Skrtic, T. (1995). The organizational context of special education and school reform. In E. L. Meyen & T. M. Skrtic (Eds.), *Special Education and Student Disability* (pp. 731-491). Denver, CO: Love Publishing.
- Skrtic, T. (1996). School organization, inclusive education, and democracy. In: J. Lupart, A. McKeough & C. Yewchuk (Eds.), *Schools in Transition: Rethinking Regular and Special Education* (pp. 81-118). Scarborough, ON: Nelson.
- Smutney, J. F. (2001). *How to stand up for your gifted child: Making the most of kid's strengths at school and at home*. Minneapolis: Free spirit.
- Smutney, J. F. (Ed.) (1998). *The young gifted child: Potential and promise, an anthology*. Cresskill, NJ: Hampton.
- Spearmen, C. (1927). *The abilities of man*. New York: Macmillan.
- Stale. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stanley, J. C. (2000). Helping students learn only what they don't already know. *Psychology, Public Policy, and Law*, 6, 216-222.
- Stanley, J. C. & Brody, L. E. (2001, Fall). History and philosophy of the talent search model. *Gifted and Talented International*, 15, 94-96.
- Starnes, W., Ginevan, J., Stokes, L., & Barton, J. (1988, March). *A study in the identification, differential diagnosis, and remediation of underachieving highly able students*. Paper presented at the annual meeting of the Council for Exceptional Children, Washington, DC.
- Stefanich, F. & Schnur, J. O. (1979). Identifying the handicapped gifted. *Science and Children*, November/December, 18-19.
- Stein, D. B. (1999). *Ritalin is not the answer: A drug free, practical program for children diagnosed with ADD or ADHD*. San Francisco: Jossey Bass.

- Sternberg, R. J. (1985). *Beyond IQ: A triarchic theory of human intelligence*. Cambridge England: Cambridge University Press.
- Sternberg, R. (1987). A triarchic theory of intellectual giftedness. In: Sternberg, R. & Davidson, J. (Eds.). *Conceptions of giftedness*. New York: Cambridge University Press.
- Sternberg, R. J., & Davidson, J. E. (1986). *Conceptions of giftedness*.
- Stevens, G. & Birch, J. (1957). A proposal for clarification of the terminology used to describe brain-injured children. *Exceptional Children*, 23, 346-349.
- Still, George (1902). Some abnormal psychical conditions in children, *Lancet* 1, 1008-1012, 1077-1082, 1163-1168.
- Straus, A., & Lehtiner, L. (1947). *Psychopathology of the brain-injured child*. New York: Grune & Stratton.
- Strauss, A. L. (1987). *Qualitative Analysis for social scientists*. New York: Cambridge University Press.
- Strauss, A. L., & Corbin, J. (1998). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Strauss, A. A. and Lehtinen, L. E. (1947). *Psychopathology and education in the brain injured child*. Grune and Stratton.
- Strop, J. & Goldman, D. (2001 Winter). The affective side: Emotional issues of twice Exceptional students. *Understanding Our Gifted*, 28-29.
- Suter, D. P., & Wolf, J. S. (1987). Issues in the identification and programming of the gifted and talents and learning disabled child. *Journal for the Education of the Gifted*, 10, 227-237.
- Swanson, H. L. (1999). *Interventions for students with disabilities: A meta-analysis of treatment outcomes*. New York: The Guildford Press.

- Swanson, H. L., & Deshler, D. D. (2003). Redefining learning disabilities as inadequate response to instruction: The promise and potential problems. *Learning Disabilities Research and Practice*, 18(3), 137-146.
- Tannenbaum, A. (2000). A history of giftedness in school and society. In: Heller, K.A., Monks, F. J., Sternberg, R. J., & Subotnik, R. F. *International Handbook of Giftedness and Talent* (2nd Edition). Oxford: Pergamon.
- Tannenbaum, A. (1983). *Gifted children*. New York: Macmillan.
- Tannenbaum, A., & Baldwin, L. J. (1983). Giftedness and learning disability: A paradoxical combination. In L. H. Fox, L. Brody, & D. Tobin (Eds.), *Learning-disabled/gifted children: Identification and programming*. Austin, TX: PRO-ED.
- Terman, L. (1921). *Genetic studies of genius. Mental and physical traits of a Thousand gifted children*. (Vol. 1). Stanford: University Press
- Terman, L. M. & Oden M. H. (1947). *The gifted child grows up: twenty-five years' follow-up of a superior group*. *Genetic Studies of Genius*, Vol. 4. Stanford, CA: Stanford University Press.
- Terman, L. M. & Oden M. H. (1959). *The gifted group at mid-life*. Stanford, CA: Stanford University Press.
- Tesch, R. (1990). *Qualitative research: Analysis types and software tools*. London: Falmer Press.
- The ERIC Clearinghouse on Disabilities. (2001). Gifted children with disabilities, Arlington, VA: The Council for Exceptional Children. Internet available: <http://www.whoagiesgifted.org/eric/index.html>
- Thompson, L. (1971). Language disabilities in men of eminence. *Journal of Learning Disabilities*, 4, 39-50.

- Thompson L. A. & Plomin, R. (2000). *Genetic tools for exploring individual Differences in intelligence*. Kidlington, Oxford: Elsevier Science Ltd.
- Treffinger, D. J. (1991). Future goals and directions. In: N. Colangelo & Davis (Eds.), *Handbook of gifted education* (441-447). Boston: Allyn & Bacon.
- Treffinger, D. J. & Feldhusen, J. F. (1996, Winter). Talent recognition and development: Successor to gifted education. *Journal for the Education of the Gifted*, 19, 181-183.
- Treffinger, D. J., Sortore, M. R., & Tallman, M. C. (1992). *The creative problems solvers guide book: a practical set of reproducible templates to guide facilitators group participants*. Sarasota, FL: Center for Creative Learning, Inc.
- Udall, A. (1985). Chapter reaction (to Intellectually gifted persons with specific LD). In: J. R. Whitmore & C. J. Maker (Eds.), *Intellectual Gifted in Disabled Persons* (pp.207-209). Rockville, MD: Aspen.
- U. S. Department of Health, Education, and Welfare. (1972). *Education of the Gifted and Talented*. Washington, DC: Author.
- U. S. Department of Education, National Commission on Excellence in Education. (1983). *A Nation at Risk: The imperative for educational reform*. Washington, D. C.: Author
- U. S. Department of Education, (1993). *National excellence: A case for developing America's talent*. Washington, DC: U. S. Government Printing Office.
- U. S. Department of Education. Office of Educational Research and Improvement. (1993). *National excellence: A case for developing America's talent*. Washington, DC: United States Government Printing Office.
- U. S. Congress. (1994). *Improving America's Schools Act of 1994* (Public Law 103-882). Washington, DC: Author

- U. S. Congress. (2001). *No child Left Behind Act of 2001*(H. R. I.). Washington, DC: Author.
- U. S. Congress. (2004). *Individuals with Disabilities Education Improvement Act*. (H. R. 1350). Washington, DC: Author.
- Vail, P. L. (1989). *The gifted learning disabled student*. In L. B. Silver (Ed.), *The Assessment of learning disabilities: Preschool through adulthood* (pp. 135-160). Boston, MA: College-Hill Press. (371.90973 SIL-Book.)
- Vail, P. L. (1987). *Smart kids with school problems: Things to know and ways to Help*. New York, NY: Penguin Books.
- VanTassel-Baska, J. (1991). Serving the disabled gifted through educational collaboration. *Journal for the Education of the Gifted*, 14, 246-266.
- VanTassel-Baska, J. (1996). The development of talent through curriculum. *Roeper Review*, 18, 98-102.
- VanTassel-Baska, J. (1998). *Excellence in educating gifted and talented learners*. Denver, CO: Love Publishing Company.
- VanTassel-Baska, J. (2000). Curriculum policy development for secondary gifted programs: A prescription for reform coverage. *NASSP Bulletin*, 14-29.
- VanTassel-Baska, J. (2003). *Curriculum planning and instructional design for gifted learners*. Denver: Love.
- Vespi, L. & Yewchuk, C. (1992). A phenomenological study of the social/emotional characteristics of gifted learning disabled children. *Journal for the Education of The Gifted*, 16 (1), 55-72.
- Viadero, D. (1995, May 31). Twice exceptional. *Education Week on the Web*. Internet Available: <http://www.edweek.org/ew/1995/36gifted.h14>.

- Vespi, L., & Yewchuk, C. (1992). A phenomenological study of the social/emotional Characteristics of gifted learning disabled children. *Journal for the Education of The Gifted*, 16, 55-72.
- Vgotsky, L. (1978). *Mind and society: the development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Walberg, H. J., & Stariha, W. E. (1992). Productive human capital: learning, creativity, and eminence. *Creativity Research Journal*, 5(4), 323-340.
- Waldron, K. A., Saphire, D. G., & Rosenblum, S. A. (1987). Learning disabilities and giftedness: Identification based on self-concept, behavior, and academic patterns. *Journal of Learning Disabilities*, 20, 422-432.
- Warshaw, M. G. (2002). Top 10 pieces of advice for parents of uniquely gifted children, *Uniquely Gifted*. Internet Available: <http://uniquelygifted.org/top10.html>.
- Webb, J. T. (2001, Summer/Fall). Misdiagnosis and dual diagnosis of gifted children: Gifted and LD, ADHD, OCD, Oppositional Defiant Disorder. *ITAG News*. Paper presented at the American Psychological Association Annual Convention, Washington, D. C., August 7, 2000.
- Webb, J. T. Ph.D, Amend, E. R. Psy, D., Webb, N. E., Psy.D., Goerss, J., M. D.,
- Webb, J. T. & Maker, C. J. (1993). *ADHD and children who are gifted*. ERIC EC Digest E522.
- Weil, M. P. (1987). Gifted/learning disabled students: Their potential may be buried treasure. *Clearing House*, 60, 341-343.
- Weinfeld, R., Barnes-Robinson, L., Jewler, S., & Shevitz, B. (2002). Academic programs for gifted and talented/learning disabled students. *Roeper Review*, 24, 226-233.

- Weinfeld, R., Barnes-Robinson, L., Jewler, S., & Shevitz, B. R. (2002). Academic programs for gifted and talented/learning disabled students. *Roeper Review*, 24(4), 226.
- Weinfeld, R., Barnes-Robinson, L., Jewler, S., & Shevitz, B. R. (2006). *Smart kids with learning difficulties: Overcoming obstacles and realizing potential*. Waco, TX: Prufrock Press.
- Werner, E. E. (1993). Risk and resilience in individuals with learning disabilities: Lessons learned from the Kauai longitudinal study. *Learning Disabilities Research & Practice*, 8, 28-35.
- Werner, E. E., Bierman, J. M., & French, F. E. (1971). *The children of Kauai*. Honolulu, HI: University of Hawaii Press.
- Werner, E. E., & Smith, R. S. (1977). *Kauai's children come of age*. Honolulu, HI: University of Hawaii Press.
- Werner, E. E., & Smith, R. S. (1989). *Vulnerable but invincible: A longitudinal study of resilient children and youth*. New York: Adams, Bannister, Cox.
- Werner, E. E., & Smith R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Ithaca, NY: Cornell University Press.
- Whitmore, J. R. (1980). *Giftedness, conflict, and underachievement*. Boston: Allyn & Bacon.
- Whitmore, J. R. (1981). Gifted children with handicapping conditions: a new frontier. *Exceptional Children*, 48 (2), 106-113.
- Whitmore, J. R. (1989). Four leading advocates for gifted students with disabilities. *Roeper Review*. 12(1), 5-13.
- Whitmore, J. R. & Maker. C. J. (1985). *Intellectual giftedness in disabled Persons*. Rockville, MD: Aspen Systems Corporation.

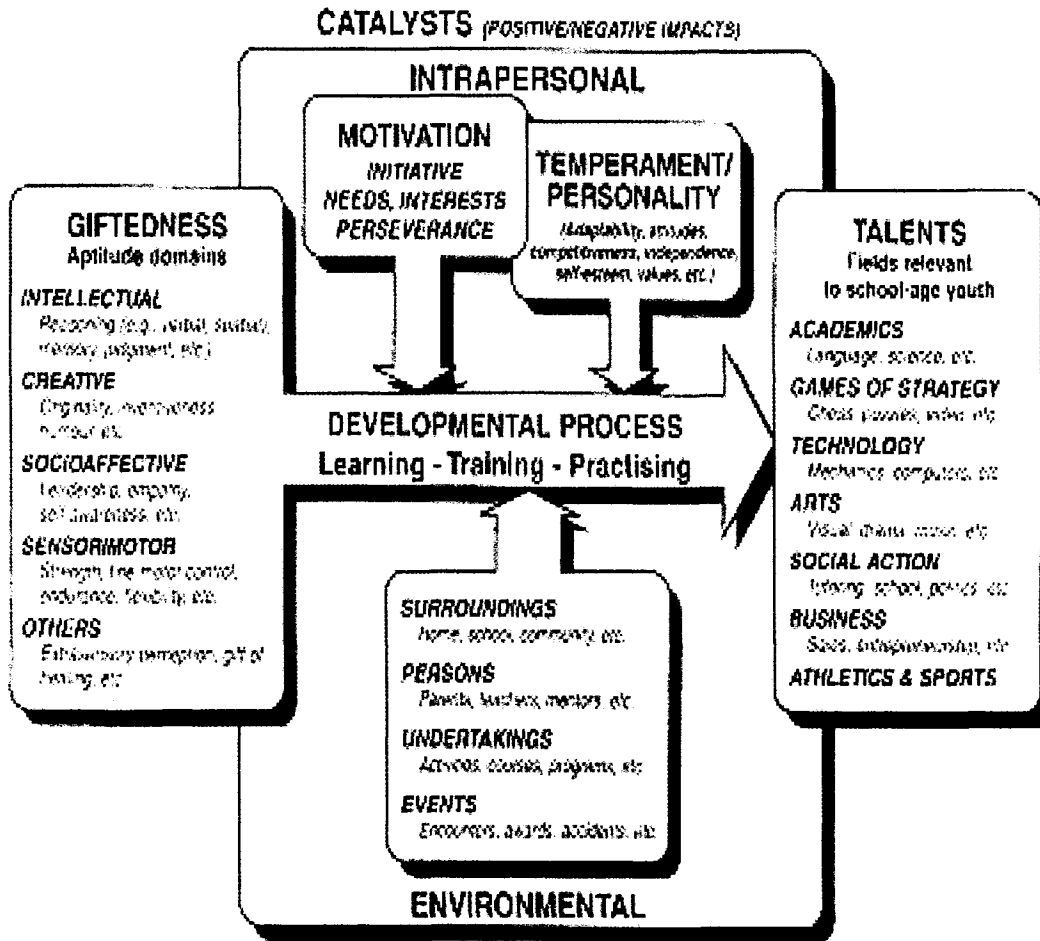
- Willard-Holt, C. (1999). *Dual exceptionalities*. The ERIC Clearinghouse on Disabilities and Gifted Education. ERIC EC Digest E#574.
- Williams, James (1890). *The principle of psychology*. Vol. 2 Henry, Hold, and Company.
- Willias, K. (1988). The learning-disabled gifted: An unmet challenge. *Gifted Child Today*, 11(3).
- Winebrenner, S. (1996). *Teaching kids with learning difficulties in the regular classroom*. Minneapolis: Free Spirit Press.
- Winebrenner, S. (2000). *Teaching gifted kids in the regular classroom* (2nd Ed.). Minneapolis: Free Spirit.
- Winebrenner, S. (2003, Jan.). Teaching strategies for twice-exceptional students. *Intervention In School and Clinic*, 38(3), pp. 131-137.
- Winner, E. (1996). *Gifted children: Myths and realities*. New York: Basic Books.
- Witty, P. (1951). *The gifted child*. Boston: Heath.
- Wolf, J. & Gygi, J. (1981). Learning disabled and gifted: Success or failure? *Journal for the Education of the Gifted*, 4, 199-206.
- Yewchuk, C. R. (1985). Gifted/learning disabled children: an overview. *Gifted Education International*, 3 (2), 123.
- Yewchuk, C. (1996). Gifted education and school reform. In: J. Lupart, A. Keough & C. Yewchuk (Eds.), *Schools in Transition: Rethinking Regular and Special Education* (pp. 164-193). Scarborough, ON: Nelson.
- Yewchuk, C., & Bibby, M. A. (1989) A comparison of parent and teacher nomination of gifted hearing-impaired students. *American Annals of the Deaf*, 133, 344-348.
- Yewchuk, C., & Jobagy, S. (1992). Gifted adolescents: At risk for suicide. *European Journal for High Ability*, 2 (1), 73-85.

- Yewchuk, C. & Lupart, J. (2000). Inclusive education for gifted students with disabilities. In K. A. Heller, F. J. Monks, R. J. Sternberg, & Subotnik, R. F. (Eds.) *International Handbook of Giftedness and Talent*. Elsevier: Pergamon.
- Yin, R. K. (2001). *Case study research: Design and methods*. Thousand Oaks, CA: Sage Publications.
- Yin, R. K. (2003). *Applications of case study research*. (2nd Ed.). Thousand Oaks: Sage Publications.
- .Zecker, S. G. Ph. D. (n.d.) *Underachievement and learning disabilities in Children who are gifted*. Northwestern University, Center for Talent Development. Internet Available:
<http://www.ctd.northwestern.edu/resources/socemoachieve/underachieveld.html>.
- Ziegler, A. & Heller, K. A. (2000). Conceptions of giftedness from a meta-theoretical perspective. In Heller, K.A., Monks, F. J., Sternberg, R. J., & Subotnik, R. F. (Eds.) *International Handbook of Giftedness and Talent* (2nd Edition). Oxford: Pergamon.

Appendix A

Differentiated Model of Giftedness and Talent

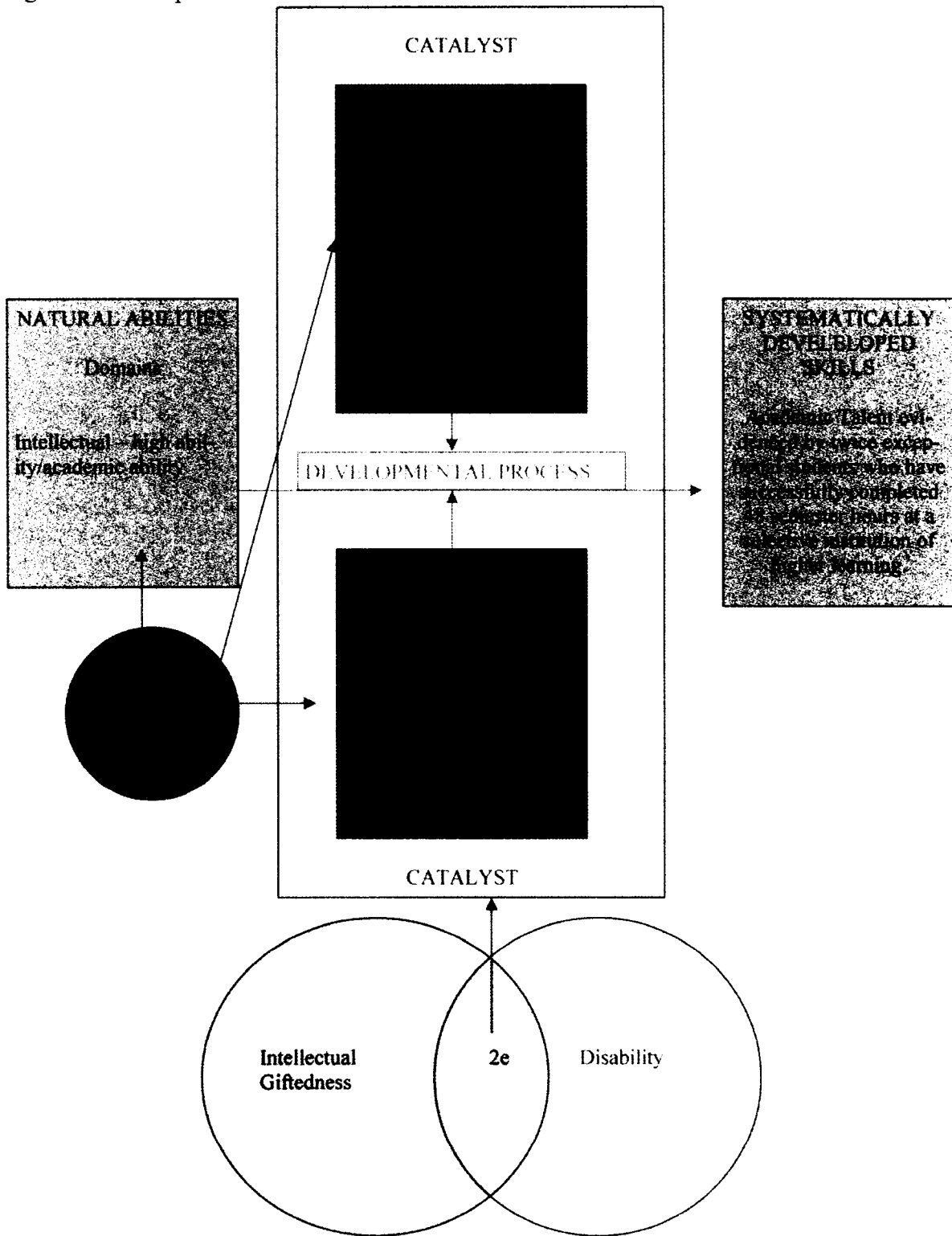
Differentiated Model of Giftedness and Talent
 Francoys Gagne



Appendix B

Conceptual Framework

Figure 2: Conceptual Framework



Appendix C

Questionnaire for the Office of Disabilities Sample

Questionnaire for the Office of Disabilities Sample
Student Questionnaire

*A \$10 gift certificate to Barnes and Nobles will be given to each person who **returns** this questionnaire

Date _____

Gender: M F Ethnicity: Hispanic Caucasian Asian African American Other

Birth date: _____ Age: _____ Hours completed in
college to date: _____

School Attendance: (Circle One) Elementary Public Private
(Circle One) Middle School Public Private
(Circle One) Secondary Public Private

Projected year of college completion _____

Please report the following information if available from your test records:

Aptitude Test:

Scholastic Aptitude Test (SAT)

Verbal: _____ Quantitative _____

Grade Point Average (GPA)

High School GPA _____ College GPA (to date) _____

In what areas have you been identified disabled?

- Learning Disability
- Specific Learning Disability
- Attention Deficit Disorder
- Attention Deficit Hyperactive Disorder
- Other Health Impairment

Other _____

Family Structure: (Check appropriate box)

- | | | | | |
|------------------------------------------|--------------------------|----------------------|--------------------------|----------|
| Live with both parents | <input type="checkbox"/> | Live with one parent | <input type="checkbox"/> | Father |
| | | | <input type="checkbox"/> | Mother |
| Live with stepparents | <input type="checkbox"/> | | <input type="checkbox"/> | Guardian |
| Live with guardians or other arrangement | <input type="checkbox"/> | | | |

Were you identified gifted prior to college? Yes No
If yes? What age? _____

In what areas have you been identified as gifted? (Check the appropriate box (s))

- | | |
|----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Linguistic | <input type="checkbox"/> Interpersonal |
| <input type="checkbox"/> Musical | <input type="checkbox"/> Intrapersonal |
| <input type="checkbox"/> Artistic | <input type="checkbox"/> Body-kinesthetic |
| <input type="checkbox"/> Leadership | <input type="checkbox"/> Non verbal |
| <input type="checkbox"/> Creativity | <input type="checkbox"/> Logical/mathematical |
| <input type="checkbox"/> Specific Academic Ability | <input type="checkbox"/> Intellectual Ability |
| <input type="checkbox"/> Other _____ | |

Were you enrolled in a gifted program? If yes please check services received.

Elementary Level	Secondary Level (Middle and High)
<input type="checkbox"/> Early admission to kindergarten	<input type="checkbox"/> Early admission to middle or high school
<input type="checkbox"/> Individualized Classroom	<input type="checkbox"/> Core academic classes
<input type="checkbox"/> Individualized instruction	<input type="checkbox"/> Group seminars
<input type="checkbox"/> Accelerated promotion (grade skipping)	<input type="checkbox"/> Honors classes
<input type="checkbox"/> Independent study	<input type="checkbox"/> International Baccalaureate
<input type="checkbox"/> Mentors	<input type="checkbox"/> Dual Enrollment
<input type="checkbox"/> Pull-out programs/Resource rooms	<input type="checkbox"/> Early entrance to college
<input type="checkbox"/> Grouping by ability or need	<input type="checkbox"/> School-within-a-school
<input type="checkbox"/> Magnet classes	<input type="checkbox"/> Governor's schools
<input type="checkbox"/> After-school, Saturday school, or summer enrichment	<input type="checkbox"/> Advanced Placement
<input type="checkbox"/> Magnet classes	<input type="checkbox"/> After-school, Saturday school, or summer enrichment
<input type="checkbox"/> Special schools	<input type="checkbox"/> Mentorships
<input type="checkbox"/> Regular classroom <input type="checkbox"/> with cluster <input type="checkbox"/> with non-graded or cross-age grouped classes	<input type="checkbox"/> Internships
<input type="checkbox"/> Art Opportunities	<input type="checkbox"/> Special Camp
<input type="checkbox"/> Other _____	<input type="checkbox"/> Other _____
<input type="checkbox"/> Other _____	<input type="checkbox"/> Other _____

For those checked describe any major personal impact:

Have your biological parents been identified with a disability comparable to yours?

Circle one: Yes No

If yes, please
describe _____

Do you have siblings?(Circle One) Yes No

If yes, indicate the number of each type:

Brothers _____ Sisters _____ Step brother _____

Step Sister _____

Other _____

Have any of your siblings been identified with disabilities? (Circle One)

Yes No

If yes, describe the disability

Have any of your siblings been identified gifted? (Circle One)

Yes No

If yes, describe the area of giftedness

At this stage in your education, you are a successful student. What factors have contributed to that success to date?

Thinking back over your entire educational journey; what factors inhibited your progress?

What would you identify as the major ways your high ability and disability both worked for you or against across the educational journey?

Would you be interested in being involved in a follow-up study that would involve sharing personal information that would probe issues more deeply to help inform educators more precisely about the hurdles and obstacles students with disabilities and high ability face? All information shared will be confidential and names will not be used at any time during the research process.

Yes No

If you check yes, please leave your name with the Office of Disabilities or contact me personally at leeg@widomaker.com.

*A \$10 gift certificate to Barnes and Nobles will be given to each person who **returns** this questionnaire.

Appendix D

Interview Protocol for Chosen Sample

Interview Protocol for Chosen Sample

Tell me about your journey towards developing your academic talents to date.

Elementary?

Middle?

High School?

College?

Tell me about specific obstacles you have faced that impeded your academic development.

When you think about your own personal or internal resources, what do you view as your greatest strengths in being able to accomplish what you have so far?

Prompts:

Are there particular strategies that you have created or found that have aided you at different stages of your educational journey?

What do you think is unique about your personality (temperament, traits, well-being, self-awareness, self-esteem or adaptability) that has made it possible for your success?

Who would you identify as important facilitators of your development? Key inhibitors?

Prompt:

Are there special people that have been inspiring or pivotal in your success?

What kinds of programs or educational provisions facilitated your development?

Hindered it?

Prompt:

What programs, activities or services have been important in your development?

What crystallizing experiences (epiphany, change of direction that propelled you forward) were crucial to your success? Were there experiences that caused you to regress?

Prompt:

Can you pinpoint any special encounters, commendations, or events that have contributed to your success?

Are their specific encounters or experiences that inhibited your success?

What environments or social contexts have proven to be most conducive for your learning over time? Least conducive?

At what points in your educational journey were your strengths or weaknesses emphasized more than the one another?

Appendix E

Policy for Accommodating Students with Disabilities

Office of the Dean of Students

Selective Institution of Higher Learning

Policy for Accommodating Students with Disabilities

Office of the Dean of Students

Selective Institution of Higher Learning

It is the policy of the selective institution of higher learning to provide students who have

disabilities with reasonable educational accommodation based upon relevant law, the College's educational standards, and sound ethical practice in disability services.

Persons eligible for accommodation under this policy include undergraduate and graduate students seeking degrees at the selective institution of higher learning, whether enrolled full time or part time, and unclassified students during the period of their enrollment at the College. Only students who identify themselves as having a disability and seek accommodation using the procedures described in this policy are eligible.

The Americans with Disabilities Act defines a "person with a disability" as anyone with a physical or mental impairment that substantially limits one or more major life activities, such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working. In addition to those with visible disabilities such as persons who are blind, deaf, or use a wheelchair, the definition includes people with a wide range of hidden disabilities. These include psychological problems, specific learning disabilities, and chronic health impairments such as epilepsy, diabetes, arthritis, cancer, cardiac problems, HIV/AIDS. A person is considered disabled

if s/he has a record of disability or is regarded as having a disability. For the purpose of this policy, "disability" or "disabling condition" is also defined as the relational result of not having a fair environment or "level playing field" because an impairment is not counterbalanced by appropriate resources (such as tools, supplies, attitudes, rules, opportunities).

Educational accommodations are defined as any reasonable adjustment required for a student to participate fully in the College community, inside or outside the classroom. Decisions about what constitutes reasonable accommodation for an individual student are made by the Assistant Dean of Students for Disability Services, using information provided by the student and occasional consultation with faculty and/or other College officials. Accommodations are considered on a case by case and a class by class basis and decisions made by the Assistant Dean may be appealed to the Dean of Students.

Accommodations not provided by the selective institution of higher learning include personal aids/devices and specialized transportation.

Accommodations are made during academic sessions and semesters when an individual student is enrolled at the selective institution of higher learning. Students engaged in academic work off site (such as internships for course credit and study away) are not generally eligible for accommodation by the selective institution of higher learning selective institution of higher learning. (The ability to accommodate a student with a disability should be a precondition for any business, agency, or organization that wants to participate in an internship or externship agreement with the College.) In the case of academic course work taken at another institution of higher learning, the Assistant

Dean of Students for Disability Services will serve as consultant and information source for students arranging accommodations at these locations.

Documentation of Disability

Students who may wish to document a disability include those entering the College for the first time or returning after a period of non-enrollment, who have a known disability; those experiencing educational difficulty who are referred by a faculty member or College official for consultation regarding the possibility of disability; and those whose health and/or physical abilities are altered during their educational tenure resulting in disability (permanent or temporary).

The student assumes full responsibility for providing all diagnostic information to sufficiently support the existence of disability and/or the need for reasonable accommodation. Further, the student will be expected to sign a Release of Information agreement before accommodation requests are shared with faculty or other appropriate College officials by the Assistant Dean of Students for Disability Services. Disability Services can offer outside referrals for diagnostic services not provided by the College. All costs associated with diagnostic study incurred off campus, however, are borne by the student.

Information regarding a student's disability which is submitted by a professional outside the selective institution of higher learning must be in writing and should be submitted to the Office of the Dean of Students, Disability Services. Reports must be provided by a qualified professional, most often a physician, educational diagnostician, learning disability specialist, or mental health professional who is not a blood relative. When tests or measurements have been instrumental in the diagnosis of disability, a

written report thoroughly describing testing procedures followed, instruments used, and test results/interpretation is expected. Except for documentation of permanent physical and sensory disabilities, the information provided should be based on diagnostic work no older than three calendar years from the date of the student's initial consultation with Disability Services staff. In most cases, previous evaluations meeting the conditions described in this paragraph are accepted by the College; however, the College reserves the right to require further diagnostic study and/or a second opinion when the Assistant Dean of Students for Disability Services deems it necessary.

The Assistant Dean of Students for Disability Services is responsible for deciding whether a disability has been adequately documented. The Assistant Dean will identify a list of potential accommodations in accordance with the manifestations of the disability, a copy of which will be shared with the student. Following review and approval at the start of each semester of enrollment, the Assistant Dean will prepare individual letters for each professor summarizing the accommodation request(s) in his/her course. Whenever possible, these letters will be hand delivered by the student seeking assistance. When possible, students entering the College for the first time should submit information related to disability at least six weeks prior to enrollment so that reasonable accommodation can be arranged and delivered in a timely fashion.

Confidential Handling of Disability Records

All information submitted to or developed by the College related to the diagnosis, documentation, or accommodation of a disability is considered confidential and will not become part of any other student record at selective institution of higher learning. Staff of the Dean of Student's Office have access to all disability records and may arrange access

for other authorized College officials in the event of an emergency or other unusual necessity. Disability information may be released in confidence to faculty members or other members of the community who have an educational need to know, but only with the express written consent of the student. The Affirmative Action Officer may collect accommodation data at the end of each semester for statistical purposes only. All documents supporting a disability on file in the Disability Services Office will be retained for ten years following graduation or some other definitive departure date, and then destroyed. Diagnostic information obtained during a student's tenure at William and Mary that is inconclusive of disability will be retained for one year from last date of service or contact, and then destroyed.

Accommodation for Students with Disabilities

Having provided sufficient evidence of a handicapping condition, a student may make official requests for accommodation through the Disability Services Office. Faculty and other College officials will then be expected to provide reasonable accommodation(s) in accordance with official written accommodation statements issued by the Disability Services Office. Faculty and/or other College officials who do not provide reasonable accommodation do so with the understanding that they are in direct violation of College policy. If a professor or other College official does not agree to an accommodation request, the student should seek intervention through Disability Services. Because the reasonableness of any individual accommodation request can vary substantially depending upon a student's current course load, schedule, or course content, accommodation requests must be reviewed by the Assistant Dean of Students for Disability Services each semester or summer session of enrollment. In addition to

academic accommodation, the Assistant Dean coordinates the efforts of College departments such as Facilities Management, Parking Services, Residence Life, Office of the Registrar, and Student Activities to address special access and service issues related to a student's educational experience. The Assistant Dean also serves as consultant, working with individual faculty members and academic departments to identify and arrange needed accommodations for individual students.

Disability and the Foreign Language Requirement

Students with conditions which adversely affect the learning of foreign language may request reasonable accommodation within the structure of required foreign language courses. If accommodation proves unworkable, however, students may petition the Committee on Degrees for authorization to substitute select courses for foreign language courses. They should petition as soon as possible, but no later than the pre-registration period of the first semester of their senior year. The substitute courses are approved by the Dean of Undergraduate Studies in consultation with the Chair of the Modern Languages and Literatures Department or his/her designee. All students seeking modification of this degree requirement must successfully complete one pre-authorized substitute course for every semester of required foreign language not taken.

To ensure that modification is considered only when truly needed, students must provide documentation of disability meeting specific criteria. Students experiencing exceptional difficulty with foreign language course should also consider approaching any current foreign language instructor to discuss concerns.

Revised 12-08-04

Appendix F

Student Questionnaire Narratives

Student Questionnaire Narratives

Charles

Demographic and Educational Background

Charles will graduate from college in 2007 from a local college in the Norfolk/Virginia Beach area. His educational journey has been fraught with difficulty, but a strong support system at home has more than equipped him in his journey from kindergarten through graduation from college.

Charles' scores on his Scholastic Aptitude Test were above average but were lower than one would expect, given his high ability. He was identified as gifted at 6 years old and was placed in a talented and gifted program from third grade through high school. He scored 600 on the verbal quotient of his SAT's and 630 on his quantitative portion. His overall score was 1230. He maintained a 3.8 GPA in high school and at the end of his junior year of college had a cumulative grade point average of 3.18. Charles has struggled throughout his journey with ADHD and an executive function disorder.

Charles lives in an intact family system and has two siblings. He was placed in enrichment programs at age six. His area of giftedness was in intellectual and academic ability. Charles has had access to numerous programs throughout his educational journey. He has been involved in individualized programs, pull-out programs/resource room, grouping by ability, core academic classes, and advanced placement. Both of his siblings have been identified as gifted, but neither have been diagnosed with a learning disability or ADD.

Factors Facilitating or Inhibiting Success

Even though there were many factors that contributed to his success across his academic journey, Charles also identified factors that inhibited to his growth. His major facilitating factor was family support in which his mother played a pivotal role as a coach over the years. In college, he identified support through the, Disabilities Services Office at college which included accountability, counseling, and advising. He received numerous accommodations for his disabilities. He always sat in the front of his classes (priority seating), was able to take tests in a quiet environment (which was arranged totally by the disabilities office and the teacher), was given a person to take notes for him, and made it his responsibility to never miss class or allow himself to get behind. Charles also had a network of support that ranged from professors that understood his needs, emotional support from Christian friends, and to “above all God.”

Even though there were many factors that contributed to his success across his academic journey, Charles also identified factors that inhibited his growth. He struggled with weak “actually horrible, organizational and planning skills.” He relates that the last two years have been better in this arena. Distractibility has been a continual struggle. “This causes it to take more time in completing tasks.” He states, “my attention deficit causes this along with slower processing speed.” Charles also struggles emotionally since he is “more susceptible to stress than the average student.” He finds college stressful and wishes he was more responsible, especially when it comes to keeping up with work and not wasting time.

Role of Ability and Disability in Negotiating Advanced Education

Charles states, "I can conceptualize high level concepts easier than some people. However, I struggle with common sense. It is the practical problem solving that trips me up." He has a good memory along with strong deductive and logic abilities. However, poor people-skills, which have lead to difficulty in addressing problems directly with professors, have been an inhibitor. Charles is majoring in computer programming. His math ability makes many of his computer classes easier. His inability to cope emotionally, however, has definitely acted as an inhibitor in gaining as much as he could in the educational system.

Marsha

Demographics and Educational Background

Marsha plans to complete college in 2007. Prior to college she attended private school throughout her elementary, middle school, and high school years. She scored superior on her Scholastic Aptitude Test. In the verbal area she scored 750 and on the quantitative component she scored 760. Her overall score was 1510 out of a possible score of 1600. Her overall high school percentile score was 92.7%, (3.7) the metric used by her high school. Her college grade point average in her current placement is 3.01.

Marsha struggles with ADD/ADHD. She comes from a split home and lives with her mother. Her strengths fall in the areas of creativity, specific academic ability, interpersonal skills, and intellectual ability. When asked about specific programs she had been involved in she noted "grouping by ability, honors classes, advanced placement, and John's Hopkins (three subjects, three years around)." Marsha's father shows symptoms

of ADHD but has not been officially diagnosed with the disorder. She has a brother who has also been identified with ADHD.

Factors Facilitating and Inhibiting Success

Marsha states that “I have a semi-photographic (short term) memory. Also, I ‘bull shit’ well and write papers well. She feels like her entire educational career has been a fluke “more or less.” She has coped by making it more of a game than a journey. She played the game of “how little can I do and get a good grade.” In an aside to this comment she states, “Mostly because no matter how hard I try I can never seem to get the work done anyway.” She believes that her disabilities would make it impossible to make good grades unless she got the accommodations she needed. “Without extra time, I would have a C- average at a community college and an SAT score of 800 (cumulative). The extra time was the only special treatment my disorder merits and without that my performance level would be extremely below my actual ability. “

One of her personal inhibitors has been time management. “I could get away with stuff because I was smart. I’ve never performed to my full abilities because I can’t focus as easily as others and rather than fumbling around and getting frustrated with myself, I just started coasting.”

Role of Ability and Disability in Negotiating Advanced Education

Marsha indicated that if she had been able to function at the top of her ability, she would have skipped math levels; however, “I rarely did my homework. To this day, I have not read/completed a single college text book. I forget assignments, mismanage my time, etc.” She laments that her scores were too high in high school to allow her to take a study skills class. “So I have no idea what I’m doing wrong.” However, my ability

allows me to think on my feet extremely well. And let's face it, I AM at a selective institution of higher learning.”

Don

Demographics and Educational Background

Don is a very intelligent young man who attended public school for all of his formative education. He will graduate from a selective institution of higher learning this school year, 2006. Don scored well on his Scholastic Aptitude tests scoring a 680 on his verbal quotient and a 620 on his quantitative quotient. This gave him 1300 out of a total of 1600. He maintained a 4.12 GPA in high school indicating successful completion of advanced placement classes gaining higher quality points. His college grade point average at this time is 3.02.

Don struggles with dyslexia which has impacted his reading speed and ability to process as rapidly as normal students. He has an intact family structure and was not identified as gifted prior to college. He also alludes to having problems throughout school with depression. His specific areas of strength are in the areas of creativity and writing. The only classes he participated in for high ability students were his advanced placement subjects in high school. He mentioned that “advanced placement classes taught him good studying habits.”

When queried about any family members that might have shown similar difficulties with learning, Don stated, “My father said he had a lot of learning problems as a child but he was never diagnosed.” Don has one sister, but she has not demonstrated any difficulties that would signal a reading processing disorder.

Factors Facilitating and Inhibiting Success

Don states that his father always spent a large amount of time studying with him. His father was his greatest advocate. He also mentioned that in order to compensate he studied a lot. Don also believes that his faith in Jesus has helped to stabilize him emotionally.

He feels like the things that worked against him the most were horrible teachers; teachers who did not understand the accommodations he would need, given his slow reading speed. He laments that across the board “there was never enough time to get things done.”

Role of Ability and Disability in Negotiating Advanced Education

“As I indicated earlier, my writing abilities are my strongest area.” When he has papers that need to be written, it is Don’s writing strengths that makes this a positive experience for him. He finds this easier than many students do. However, “My slow reading speed makes research difficult so it limits the quality of what I would like to write.”

Jodie

Educational Background

Jodi attended a selective institution of higher learning and has maintained a 2.55 through the end of her junior year. She is twenty years old and attended private school throughout her formative school career. She will graduate in May of 2007.

Jodie scored well on her Scholastic Aptitude Test. Her verbal score was 640 with her quantitative score a 690. Her total battery was 1330 out of a possible 1600. Her grade point average from high school was 3.5.

Jodie struggles with Attention Deficit Disorder (ADD). She lives with both of her parents. Her father is also ADD. Jodie has one brother, but he has not been identified with any cognitive disorders.

When asked about her strengths, she stated that her strengths were “in the areas of linguistic aptitude, musical aptitude, body-kinesthetic aptitude, and intellectual ability. She was placed in honors classes in high school.

Factors Facilitating and Inhibiting Success

Jodie relates that her success was highly related to the support she received in school at both elementary and middle school levels. “The teachers worked with my parents and counselor to help me. When I was earning poor grades, they tried to find out why, rather than expel me.” These experiences early on fostered confidence and success when it could have easily gone the other way.

“There was a year or two that was particularly difficult at home. My parents were going through a divorce and this inhibited my progress in school somewhat.” Jodie feels that her school acted in her best interest during this time.

Role of Ability and Disability in Negotiating Advanced Education

Jodie feels that having extra time to take tests has benefited her and worked well for her. She states, “Perhaps it wasn’t necessary because I decided not to use it in college and have not had too much time pressure, at least not any more than the average student here.”

Sabrina

Demographics and Educational Background

Sabrina will graduate from a selective institution of higher learning in May of 2007. Her educational journey has been a successful one, but has been filled with difficulty due to disabilities that had to be identified, understood, and accommodated. Sabrina's scores on her Scholastic Aptitude test were superior. Her verbal component was 750 with her quantitative a little stronger at 790. Her total score was 1540 out of a possible 1600. She maintained a 4.0 GPA at a nationally known school for science and technology in Northern Virginia. College at a selective institution has been a challenge, yet in spite of the obstacles of a specific learning disability in the area of auditory processing as well as dyslexia, she has maintained a cumulative grade point average of 3.05 at the end of her junior year.

Factors Facilitating and Inhibiting Success

Sabrina has an intact family and is blessed with an extremely supportive system, particularly her mother, who has advocated positively for her across her educational journey. Because of parental involvement, she was identified early as disabled, as well as gifted. She was six years old when her proclivity for math was identified. She has participated in magnet classes, honors classes, advanced placement classes, mentorships, as well as Governor's schools, and has benefited tremendously from accelerated promotion.

It is common to discover that children with learning disabilities have parents or siblings that have struggled with the same or similar disabilities. Sabrina's father has symptoms of dyslexia, though he was never officially diagnosed or treated for the

disability. Sabrina is an only child. Her mother has not struggled with any of the difficulties her daughter has experienced.

Sabrina states that the factors that have contributed to her success are first and foremost the support of her parents, followed closely by the understanding of her professors/teachers, lots of hard work, and specific activities directed at stress reduction. She has found sports and involvement with her horse in riding and showing to be essential in preventing personal and educational burnout. She specifically stated, "I would never have made it if my parents had not moved my horse to school and boarded it locally." She rides frequently, especially when she feels stressed out.

Role of Ability and Disability in Negotiating Advanced Education

When asked to summarize her educational journey in light of factors that have inhibited her growth, she states, "Just because I have high achievement, it does not indicate that I am normal. It takes certain accommodations to reach what I can achieve. I don't look or act disabled, unless you know me very well, and especially if you look at my grades." When accommodations are not given, Sabrina is compromised in her academic progress. She acknowledges that her disability has both worked for her and against her. She believes that her high ability actually made her more able to cope with her disabilities. However, she acknowledges, "I have had a lot of frustration all along knowing I can do complex things,' however, there are immense barriers that make it seem impossible at times."

Chad

Demographics and Educational Background

Chad is a bright young man (21 years old) who will be graduating from a selective institution of higher learning in 2006. He had the benefit of private education throughout his formative educational career. He graduated from high school with a cumulative grade point average of 3.5. His scores on the Scholastic Aptitude Test were 700 in the verbal quotient with a 530 in the quantitative component. Chad has maintained a 3.1 throughout his college experience. This is a considerable success due to the lack of grade inflation at the current institution of higher learning where he is enrolled.

Chad has been diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). This disorder impacts students in the area of executive functioning. In his current family neither his mother nor stepfather have been diagnosed with the disorder nor his two siblings. In spite of the impacting disability, Chad was identified as gifted at 7 years old. He states that his greatest strength is linguistic ability. Some of the programs he was involved in throughout school were honors classes, International Baccalaureate, and Advanced Placement classes. He felt like the programs he participated in introduced him to “slightly harder work.”

Factors Facilitating and Inhibiting Success

Across his educational journey Chad had difficulty turning in assignments on time or not at all. From his perspective he “was very lucky. However, medication probably helped.” Chad stated that he knew that studying improved his grades tremendously, but

true to most ADHD children, interest or enjoying the subject helped the most. The most inhibiting factor for Chad was the inability to pay attention. He also had a propensity to procrastinate and struggled with disorganization. He attributes this to a poor work ethic.

Role of Ability and Disability in Negotiating Advanced Education

Chad sees his ADHD as being a benefit when he is able to hyper-focuses on a task. He states, "This does not happen that often, but it has helped me in certain tasks." In general his ADHD has made it "hard to focus and sit still." His high ability gave him the ability to work as well or close to the level of his peers who were also blessed with high ability. "My high ability made me able to work comparable to my peers who also operated with high ability." It was important to him to state that many of his friends had ADD or AD/HD, so he didn't feel he was "that big of a novelty."

Madeline

Demographics and Educational Background

Madeline attended public school throughout her formative educational journey. She will graduate from a selective institution of higher learning in 2007. She does not remember precisely her scores on the Scholastic Aptitude Test, but remembers scoring 630 on the verbal section and somewhere around 510 on the quantitative portion of the exam. Her total score of 1140 is above average.

Madeline's high school grade point average reflects the difficulty of her educational journey. She ended her senior year with a grade point average of 1.9. She is currently in the middle of her junior year at a selective institution of higher learning and has a cumulative grade point of 2.75. She transferred from a community college where her grade point average was 3.75.

Madeline struggles with Attention Deficit Hyperactive Disorder (AD/HD) which impairs her executive function. She also has struggled with a mood disorder and depression. She is fortunate to live in an intact family with both parents supporting her in her educational pursuits. Madeline skipped the third grade and was recommended for the talented and gifted program; however, due to problems related to her AD/HD diagnosis she could not participate. Her areas of strength are creativity, intellectual ability, and verbal/linguistic ability.

Neither of Madeline's parents evidence symptoms of AD/HD. She has one brother, one half-sister, and a deceased half-brother. There is at this time no other evidence of AD/HD in the family.

Factors Facilitating or Inhibiting Success

It has been a difficult journey for Madeline. In high school she dealt with her problems by hiding her ability through under-achievement. She states, "In high school, unfortunately, I did not care about learning." Madeline began to hit her stride after high school at a smaller community college. She attributes this to a change in attitude about education and taking her medicine regularly as essential in helping her "to be more focused and study longer."

She now has a desire to learn which she did not enjoy consistently through her K-12 experience. She states, "A willingness to learn and medication to help with my AD/HD have helped me to succeed." However, she alludes to her greatest inhibitor as being her self. Her lack of caring for school and not taking her medicine on a regular basis were definitely her largest inhibitors. She states, "Having AD/HD made it difficult for me to go to school, stay there, and concentrate."

Role of Ability and Disability in Negotiating Advanced Education

“My ability has obviously helped me to do well in school, especially once I decided to apply myself.” She sees the interplay of her disability and her ability from a positive viewpoint. Madeline believes that her disability has impacted her by enhancing her creativity. The disability has deterred her as she has moved through advanced education. “AD/HD has made it difficult for me to concentrate. It has impacted my impulsivity both in actions and in an inability to think before I speak.”

There is a great deal of angst as Madeline describes the interaction of her high ability and her disability. “AD/HD has been working against my academic ability since I was in kindergarten.” Her awareness of her ability and disability and the dichotomy it produced has been a continual emotional issue for Madeline.

Holly

Demographics and Educational Background

Holly projects that she will graduate from an institution of higher learning in the spring of 2007. She attended public school for all of her formative education. Holly did not report her scores on the Scholastic Aptitude Test. Her high school grade point average was 2.6, and her college grade point average is currently 2.0. Holly has been diagnosed with attention deficit disorder (AD/HD) with an impacting anxiety disorder. She demonstrates high ability in the areas of art, leadership, creativity and intellectual ability. Holly does not live with her parents. Holly was identified as gifted at age 15. The only special programs Holly was involved in were honors classes; however, it was in these classes that she “realized her passion and ability in science.”

Her biological parents have not been identified with a disability comparable to Holly's. She has one brother who has neither been diagnosed as gifted nor as learning disabled in any way.

Factors Facilitating or Inhibiting Success

Holly transferred from another institution of higher learning. She states, "Being a transfer, the rules and people to go to with problems were not well known to me." Since Holly was emancipated, the onus was on her to make connections with key players in administration that could help her straighten out her finances which had become a crucial matter. She has learned that "being upfront about my circumstances has helped in each class, if for not any other reason than to break the ice." She made sure each professor knew her name from the very beginning. This made it much easier for her to go to them if she ever had trouble in the class.

She felt that being a transfer student was also a hindrance. "I felt it was easier to fall through the cracks." This was compounded by a lack of relationship with her family which had "a huge impact on her during this venture." She also believed that it was tough to get those in administration to be sensitive to students with special needs, especially in her case. "I also feel the school can be too hasty to generalize a situation, instead of looking at its uniqueness. I feel that they are quick to offer medical support but not stand by mistakes that may have been made and rectify them with the student." This appeared to Holly as a lack of support and was evident as she progressed across her education at this selective institution of higher learning.

Role of Ability and Disability in Negotiating Advanced Education

One of the key issues in Holly's life was the identification of her AD/HD. "Now that it has been identified, I can handle a rather large work load and not fall apart. I feel more comfortable bringing ideas and problems before my peers and professors." Since she has been able to talk about her disability and put a name to it, she has been complimented at her unusual way of looking at problems and her ability to see new ways to solve them. Her medication gives her the control that is necessary to hold her world together. "Without that control, the slightest problem becomes devastating, and broad talent turns to what looks like laziness (she called it "shut down"), short attention span, little follow through and poor health, mentally and physically."

Daniel

Demographics and Educational Background

Daniel is attending a selective institution of higher learning and will graduate in spring of 2007. He attended public elementary school and a private institution for middle school and high school. Daniel scored very well on his Scholastic Aptitude Test. His verbal score was 610 with his quantitative score near perfect at 780. His cumulative score was 1390. He graduated from high school with a cumulative grade point average of 3.9 and has managed to earn a 3.3 cumulative grade point average as of his junior year in college.

Daniel has been tested and has been identified with Attention Deficit Disorder (AD/HD). He lives with both of his parents. Daniel's mother and all but one sibling have also been identified with AD/HD. He has two brothers and one sister. Daniel was identified as gifted in junior high school. Each of his siblings are gifted but in different areas; art and math. His strengths are leadership, interpersonal skills, and

logical/mathematical ability. Daniel participated in Advanced Placement classes and a few internships throughout secondary schooling

Factors Facilitating or Inhibiting Success

Factors that have facilitated his success have been “taking notes and putting a lot of time into studying.” He has also learned to be his own advocate as revealed in the following statement: “I also take my time on tests and beg for extra time which is usually granted.”

Daniel is easily distracted. His environment can distract him or things outside of school. He reveals that “a close friend in a class would get me easily off focus. Other distractions out of school also inhibited my development.”

Role of Ability and Disability in Negotiating Advanced Education

Daniel is typical of students who struggle with AD/HD. Impulsivity and distraction are at the core of the disorder, centered in the prefrontal cortex where executive function is located. He states that he “gets frustrated with himself because of certain things I do and how long it takes me to study for things. Studying always takes so long to complete.” The time it takes for Daniel to take to focus and get his work done is extremely frustrating to him; however, his high ability compels him to continue to stay in the process.

Alyssa

Demographics and Educational Background

Alyssa completed all of her formative education in public school. She hopes to graduate from a selective institution of higher learning in the spring of 2006. Alyssa was not sure of the two variables of verbal and quantitative on her Scholastic Aptitude Tests

but remembers having a cumulative score of around 1100 – 1150. Her graduating grade point average from high school was 3.7, and her grade point average at college is currently about 2.45.

Alyssa had been diagnosed with a general learning disability, a specific learning disability, and Attention Deficit Disorder (ADD) just before she entered college. She lives with both of her parents. Alyssa was identified as gifted at age 6. She spent elementary through middle school in gifted and talented programs. She lists her strengths as linguistic, musical, artistic, leadership, and creativity with strengths in interpersonal and intrapersonal relationships. Programs that she was a participant in for her special abilities were early admission to kindergarten, pull-out program/resource rooms, magnet classes, non-graded/cross-age-grouped classes, art opportunities, core academic classes, group seminars, honors classes, Governor's school (in summer), and advanced placement. She stated that going to the Governor's School for the Arts had a tremendous influence in her life. "I was surrounded by people with such enormous talent. Its environment was intimidating for me; however, I was able to make some awesome long-term friendships with other students." Alyssa's mother has also been diagnosed with AD/HD. She has one brother who has been diagnosed with auditory/hearing processing disabilities. This condition was found at a very young age after tubes were put in his ears. He has learned to manage his disabilities as he's gotten older and at his request, no longer receives assistance /accommodations in high school.

Factors Facilitating and Inhibiting Success

One opportunity that had worked well for Alyssa was "meeting with the Dean of Academic Affairs on a weekly basis to learn about using better time management skills."

She relates that her work and studies took her longer, much longer than most students. She has had to learn which kind of classes to take at college “based upon subject, teacher, assignments, and which types of classes worked best to my advantage.”

The main inhibiting factor for Alyssa was not being diagnosed with a learning disability until the summer before her freshman year in college. “If I had received accommodations in high school, I would have achieved more goals.” Alyssa transferred into this selective institution from another four year institution her sophomore year; however, “there was a huge jump in the intellectual ability of the student body, as well as the accommodations available to me.” The competition was much higher at her current institution and her learning disabilities accommodations and services were limited. Alyssa states, “There were few resources because there were fewer learning disability students at this institution.” One of the issues that Alyssa was emphatic about was the lack of help available from the Assistant Dean of Students over disabilities.

Role of Ability and Disability in Negotiating Advanced Education

Alyssa credits high ability and determination to achieve as her greatest asset in negotiating her path from a previous institution to a selective institution of higher learning. She worked hard at her first institution so that she could transfer to the second more rigorous and prestigious institution. Her disability worked against her in areas of testing when more time was needed; however, she did not receive that accommodation. She believes she would have done much better on high school exams and standardized testing if she were given more time on the test. She has been additionally negatively impacted by the fact that there were so few students in her new institution and that “the

teachers seemed to have little knowledge or understanding of the issues related to students with disabilities.”

Geoffrey

Demographics and Educational Background

Geoffrey attended public school through middle school. He then attended a private high school. Geoffrey plans to graduate from a selective institution of higher learning in the spring of 2008. He is 19 years old and has already attained junior status. Geoffrey scored 650 on the verbal portion of the Scholastic Aptitude Test with a stellar showing of 800 on the quantitative portion. His cumulative score on the test was superior at 1450 out of 1600 points. He maintained a 3.8 grade point average in high school and is currently maintaining a 3.3 grade point average in college.

Geoffrey lives with both of his parents and has been diagnosed with Attention Deficit Hyperactive Disorder (AD/HD) impacting areas of executive function. He has demonstrated high ability in leadership, creativity, intellectual ability, and logical/mathematical ability. He participated in gifted programs that included magnet classes, grouping with non-graded or cross age classes, early admission to secondary school, honors classes, advanced placement classes and internships. He credits taking high school classes in middle school as creating a yearning to accomplish higher standards of learning because “I became aware of how ignorant I was regarding academia.”

Geoffrey has one brother and two half-brothers. Neither of his parents nor any of his siblings have been diagnosed with ADHD. His brother has been identified as gifted.

“My brother was given an Advanced Placement diploma in high school due to his AP test scores.”

Factors Facilitating or Inhibiting Success

Geoffrey credits focus as his greatest asset in accomplishing what he has at this point. He notes that he has “the ability to manage my time effectively without letting stress hinder my progress.” He also believes that the success and intelligence of his family helped to foster an environment conducive to learning. His chief inhibitor was his inability to bring work to closure. “The biggest factor that inhibited me was my inability to stick to one task and this caused me to have numerous incomplete ‘projects!’” This was a “Catch 22” since the incomplete projects caused him to be stressed about all the goals he had not accomplished.

Role of Ability and Disability in Negotiating Advanced Education

Geoffrey states that it is obvious how his disability worked against him; however, he believes that his ability to think on a higher level allowed him to understand his “disability” which helped him to adjust and compensate for problems he has faced. “

Heather

Demographics and Educational Background

Heather attended public school in elementary school and attended public and private schools during her years in secondary school. She plans to graduate from a selective institution of higher learning in the spring of 2005. Heather scored 750 on the verbal portion of the Scholastic Aptitude Test with a 650 on the quantitative portion. Her cumulative score of 1400 out of a total score of 1600 placed her in a superior category.

She maintained a 4.0 (weighted) grade point average in high school and has a 2.9 grade point average at this point in her college performance.

Heather has been identified with a learning disability (LD), attention deficit disorder (AD/HD), and other health impairment (OHI). She lives with both parents. Heather was identified as gifted prior to college, at four years of age. She has been identified as gifted in the areas of linguistic ability and intellectual ability. Heather has participated in numerous gifted programs and services. These programs were pull out programs/resource room, field trips, after-school opportunities, Saturday and summer enrichment classes, honors classes, early entrance to college, independent study in high school, Governor's school, Advanced Placement, and dual enrollment.

Neither of Heather's parents has been identified with a disability. She has no full siblings; however, she has two half brothers. None have been formally identified with problems in the areas Heather has experienced.

Factors Facilitating and Inhibiting Success

Heather credits her mother more for her success academically. "More than anything else, I owe my success thus far to my mother who has encouraged me to develop good coping strategies, and even just sitting me down and making me do my work." She also states that non-academic passions were important (key) in keeping her going when she was frustrated with academics.

Heather lists Attention Deficit Disorder (AD/HD) and Obsessive Compulsive Disorder (OCD) as being the two worst obstacles she has had to face. This was compounded by bouts with depression over the years. Heather had a propensity to constantly challenge authority figures. Her resentment was targeted toward school

administrators who weren't particularly helpful or understanding. "This interaction never worked to make me a better student."

Role of Ability and Disability in Negotiating Advanced Education

"Without my giftedness, I would not have been able to graduate from high school." Heather had a huge problem with attention and procrastination. She had to overcompensate in order to stay competitive. "I would never have made it with the services I was receiving. My disability made me appear lazy to teachers who thought I must be perfectly bright, because I could discuss things and ask intelligent questions in class." However, this turned out to be quite negative for her in that it made it harder when she really needed help or extra time. Her cognitive abilities made it appear that "I wasn't quite so needy."

Mark

Demographics and Educational Background

Mark attended public school for his elementary and middle school years. His high school years were spent in a private school. He will graduate from a selective institution of higher learning in May of 2006. Mark scored 1140 on his SAT at the end of high school. He graduated with a 2.85 and has maintained a 2.9 in his college performance.

Mark has been diagnosed with a learning disability. He lives with both of his parents. Mark was identified as gifted at the age of seven demonstrating giftedness in his intellectual ability; however, he did not list any involvement in special programs for gifted students.

Mark's father has a very serious learning disability and is also dyslexic. Mark has one sister and two half brothers. His half brothers, on his father's side, both have been diagnosed with learning disabilities. He is the only sibling in the family that has been identified as gifted.

Factors Facilitating and Inhibiting Success

Learning to use computers and mastering key study habits has worked well for Mark. "I find computers allow me to express myself much better for several reasons. Spell check is a must for me, and being able to easily review and rewrite my ideas lets my work flow more logically."

Mark credits his special education teachers with helping him find the best ways to study. He also was challenged by the by the extra help his special education teachers gave him. "Their extra help drove me to study harder in areas that I am disadvantaged in."

Reading comprehension was especially difficult for Mark. This impacted him the most when he was in elementary school. He finally overcame his deficit and found himself becoming successful until he had to read in foreign languages. "Suddenly I felt like I was starting over." His poor spelling skills are compensated by spell check on computers. He works very hard and spends more time than his peers on written assignments.

Role of Ability and Disability in Negotiating Advanced Education

Mark states, "My disabilities hurt me most in grades one through seven." He had to repeat first grade and struggled with his feelings that he would never learn to read. "Some of my teachers believed I would never learn to read." It was through extra help as

well as specialized help that he was able to make it. “The specialized help taught me to work harder and use my strengths in the classroom. This made me able to survive and improve in the classroom.” Mark realizes that he still has weaknesses but through his educational journey he has learned that he can compensate for his weaknesses with the right amount of time and help.

Catherine

Demographics and Educational Background

Catherine attended a private school for all of her formative years of education. She will finish her college degree at a selective institution of higher learning in the spring of 2007.

Catherine’s scored a total of 1270 on her SAT exam. She scored 640 on the verbal portion and 630 on the quantitative portion. Catherine maintained a 4.0 GPA throughout high school and currently has a 3.34 at the end of her junior year in college.

Catherine lives with both her parents. Neither of her biological parents has been identified with a disability. Catherine was diagnosed with a learning disability and was also identified as gifted. Her area of giftedness was in the area of specific academic ability. She has one brother who also has not been identified with a disability or as gifted. Throughout her formative school years she participated in provisions such as, grouping by ability, honors classes, early entrance to college, and Advanced Placement classes.

When asked if any of the provisions had a major impact on her she states, “the thing that impacted my education the most had less to do with what type of honors classes , AP classes or gifted classes that I was assigned and more to do with the size

class I was in.” She also believes that the only impact that early enrollment in college had on her was “I was able to leave a high school I hated a year early.”

Factors Facilitating or Inhibiting Success

When asked what factors had contributed most to her success she stated, “I am a successful student because I am hard-working and never give up.” She also credits her lack of shyness as important, especially when her teachers and professors were critical to her success. Catherine was very deliberate about the most important factor that contributed to her success. “I was raised by two intelligent parents that placed high values on a good education.”

Catherine believes that “the biggest and perhaps the only inhibition to my progress was time.” Non-verbal instruction proved very difficult for her. Reading was impacted because anything that was not spoken was difficult for her. She is a very slow reader, writer, and makes many math mistakes. When tests are timed she makes numerous mistakes. Once she was diagnosed and documented as having a learning disability her grades began to improve. “Until I realized I had a diagnosed disability, my grades and test scores suffered because I didn’t have enough time to finish or felt rushed and made many mistakes.”

Role of Ability and Disability in Negotiating Advanced Education

Catherine struggled with feelings of inadequacy until she found out that there was a reason she was not able to keep up with “peers who seemed not more capable or skilled than I was.” Once the learning disability was accommodated, she began to realize that “I can do almost anything if I put my mind to it.” She has also been conflicted by peers

who were jealous of her academic accomplishment; however, these accomplishments were made “despite having a significant disadvantage to start with.”

Sidney

Demographics and Background Information

Sidney is a junior at a selective institution of higher learning. She attended public school during her years of formative education. Sidney will graduate from college in spring of 2007.

When Sidney took her SAT’s she scored a total of 1330 on her exam. She scored 620 on the verbal portion and 710 on the quantitative portion. She graduated from high school with a GPA of 3.45 and has a college GPA of 2.41 at the end of her junior year. Sidney lives with both of her biological parents. Neither of her parents has been identified with a disability. She does not have any siblings.

Sidney was diagnosed with a learning disability (LD) and attention deficit disorder (AD/HD). She was identified as gifted at 12 years of age. The areas in which she demonstrated high ability were in her artistic ability, her interpersonal and intrapersonal skills and in her high intellectual ability. Sidney participated in individualized instruction, core academic classes, group seminars, honors classes, and Advanced Placement classes. When asked about the impact of these services she recounted that she was in the APEX program. “It was this program that pushed me to take at least 6 Advanced Placement classes.” It was during high school, however, that Sidney was diagnosed with her disabilities. Prior to this she had difficulty in many of her classes.

Factors facilitating or Inhibiting Success

Sidney credits her success to her “patience and hard work.” She also believes that “language therapy, medication, and parental support were critical.” The factor that inhibited Sidney the most was “finding out very late about my disabilities.”

Role of Ability and Disability in Negotiating Advanced Education

“My high abilities hid my disabilities until it was very late in high school.” This caused very little progress to be made in making her grades competitive and she finds that “classes are a huge struggle for me still.”

Appendix G

Charts of Numerical Data from Questionnaire

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Gender	Male = (6)	Female = (9)		
Graduation Date	2006 = (5)	2007 = (9)	2008 =(1)	
Public School	Elementary = (11)	Middle School = (10)	High School =1 (7)	
Private School	Elementary = (6)	Middle School = (6)	High School = (8)	
SAT	1100 - 1240 = 4	1250 – 1365 = 5	1370 -1450 = 3	1450 – 1575 = 2
H.S GPA	3.8 = 1, 1, 4.12 3.7 = 1, 1 3.45 3.5 = 1, 1 4.0 = 1, 1, 4.0 1.9 2.6 3.9 2.85	2.0 – 2.9 = 3 3.0 – 3.5 = 4 3.6 – 3.9 = 4 4.0 = 4		
College GPA	3.18 3.02 3.01 2.41 2.45 2.55 3.05 3.1 2.75 2.9 = 1, 1 2.0 3.34 3.3 = 1, 1	1.9 = 1 2.0 – 2.9 = 5 3.0 – 3.5 = 8 3.6 – 3.9 = 1		
Disabilities	ADH/ADD = (11)	Executive Function Disorder = (1)	LD = (6) SLD = (2) OHI = (1)	Anxiety Disorder = (1)
Family Structure	Both Parents = (12)	Mother = (1)	Mother & Step-father = (1)	Independent = (1)
Identified G/T	Yes = (10)	No = (5)		
Age Identified	4, 6, 6, 6, 7, 7, 8, 12, 13, 15			
Enrolled in	Yes = (10)	No = (5)		

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G/T				
Areas of High Ability	Intellectual Ability = (14) Academic Ability = (2) Logical Mathematical = (3)	Linguistic = (6) Creativity = (7) Artistic = (2) Musical = (2)	Specific Academic Ability = (2) Interpersonal = (4) Intra-personal = (3)	Leadership = 1, 1, 1 = (3)
Programs	Individualized Instruction = (2) Advanced Placement = (11) Early Admission to college = (1) Dual Enrollment = (1) John's Hopkins = (1) Summer/Sat. Enrichment = (1)	Honors classes = (10) Pull-out programs = (3) Accelerated Promotion = (1) Internship = 1, 1 = (2) Early Admission to Kindergarten = (1) IB = (1) G/T Program = (1) Independent Study H.S. = (1)	Grouping by ability = 1, 1, 1 = (3) Magnet classes = 1, 1, 1 = (3) Art Opportunities = (1) Group Seminars = 1, 1 = (2) Cross-age grouping = (2) Field trips = (1) Individualized Instruction = (1)	Core academic Classes = 1, 1, 1 = (3) Governors schools = 1, 1 = (3) Mentorship = (1) Cluster = 1, 1 = (2) Early Admission to M.S./H.S. = (1)
Parents w/ LD	No = (8)	Yes = (7)		
Siblings	Male = (9)	Female = (5)	Half-Bro. = (7)	Half-Sis. = (1)
Sibling w/LD	No = (10)	Yes = (5)		
Siblings G/T	Yes = (4)	Female = (1)	Male = (3)	No = (8)
Themes from Factors of Success	Family Support Accommodations Hard work Extra time on tests Professors Support from school Teachers	Medication Keeping up Time management Outside interests Study helps Disabilities services Emotional support from friends	Going to class Counselor Study habits Computers Spell checker Semi-photographic memory Ability to bull-shit	Faith in Jesus Stress relief Lucky Enjoying subject Choice of classes Patience Language therapy Special education therapy

<p>Themes from Inhibiting Success</p>	<p>Attention deficit Time management Distractibility Need for more time on tests Poor planning and organization skills Slow processing speed</p>	<p>High stress Poor work ethic Late diagnosis Assistant Dean of Students Irresponsibility Ability to coast Getting by Bad teachers Parents divorce Lack of accommodations Don't look disabled</p>	<p>Medication Transferring in Little family support School bureaucratic structure Students left to clean up mess when administration makes mistakes Accommodations not given Competition higher Small LD student body OCD Depression Authority</p>	<p>Lack of comprehension Slow reader</p>
<p>Themes from Interaction of Gift and Disability</p>	<p>Ability made it easier to cope with disability Organization and time management skills High ability helped me keep up with peers Frustration (Know what you can do) Slow reading speed made research hard Immense barriers Emotional issues</p>	<p>ADHD Good memory High conceptualization Strong deduction and logic Math ability Poor people skills Lack of common sense Professor's accessibility Forgetting assignments Natural writing ability made papers easier Having extra time Ability to hyper-focus</p>	<p>Increased creativity Impulsive Medication Lack of understanding from institution about LD Interaction of Ability and Disability masked disability</p>	

Appendix H

Open Codes from Case Narratives

TWICE EXCEPTIONAL STUDENTS 360

Chart for Open				Codes – Alyssa				0010		
Elementary	Middle School	High School	College	Obstacles Faced	Internal Resources Strengths	Facilitators-Inhibitors of Personal Developments	Educational Programs and Provisions	Crystallizing Experiences	Environments and Social Contexts	Impact of Strengths and Weaknesses
Easier than other stages	Continued in Gifted and Talented Programs	Time still an issue	Went to college in South Carolina/ did well	Trying but not getting tested for LD in high school	Honesty with her self	Teachers; especially in middle school and high school	Academic Advising on a weekly basis	Transferring to a different college; school had a solid reputation	Environments where I don't stand out because of my disability	Weaknesses were at there greatest when she transferred to current institution
Participated in Gifted and Talented Programs throughout	Things took longer to finish	It got worse at this stage	Great facilities for LD	Changing institutions	Finds her personal passion and goes for it	Noticed her strengths and weaknesses and encouraged me to work towards my strengths	The lack of availability of a consistent format to take tests when extra time was needed	Decision to change from business to art major in order to be successful	Environments that allow her to work at her own pace	Personal strengths have worked for her in getting to know people and planning events
Transition to middle school things fell apart	Honors classes but always last to finish	School did not want to pay for testing	Person in charge very invested	Time management and balancing activities	Works diligently and consistently	Her parents; particularly her mom; very supportive and paid for testing when father didn't agree	Options at current institution not clearly defined	Realizing that she will have to find a job in her field that fits with her strengths and weaknesses		Her need to excel and perfect her product works against her; high personal expectation exposes her weaknesses
Felt like she got "stupider over time."	Did well but time issue impacted self-esteem	Not eligible for services due to high GPA	Transfers after freshman year to current selective institution of higher learning	LD population not large at current institution ; here LD considered an oddity	Puts in extra time	Assistant Dean of students (Academic Dean); helped her with time management	AP classes in high school			Time management; in order to produce a perfect product it takes her more time
Went to Public School	No longer at top of class	Willing to do extra work to get good grades	Started struggling right away	LD population at current institution less than 2%	Thrives on small rewards not large ones	Dean was like a counselor and mentor	Governor's school			Will not sacrifice product even when it requires turning it in after the deadline
Brother had learning	Peers started joking about how long it	Ability masked learning	Met with Assistant Dean of	Students very bright at current	Friends help her stay motivated and	Inhibited by Assistant Dean of Students				

TWICE EXCEPTIONAL STUDENTS 361

disabilities	would take her to finish an assignment	disability	Academics weekly	institution	on top	over Disabilities;				
"I was the star that shined"	Assignments took triple the time	Parents paid to have testing after high school	Unable to compensate and accommodate for her self	Changed to art to make life easier ; wanted to double major	Buddies up; has a friend to go to the studio with after hours	College did not fund LD well;				
		Multiple learning disabilities	Fewer services at new institution	Lack of advising and closer monitoring hurt her ability to be successful		College is unaware of issues that impact students that are not diagnosed and those who abuse the system				
		Dyslexia; undetermined LD; AD/HD; Slow processing speed	Assistant Dean of Students not helpful (Dean of Disabilities); hard edged	Got over involved in extra curricular activities which made time management an issue						
		Accepted to college in South Carolina	In order to make it at current institution she changed her major to art from business	Wanted degree in psychology but would have to return for extra semesters						
		Accommodations on SAT would have allowed her entrance into an instate school because of higher score	Tried in high school to self-refer							
		Conflicted by know-ledge	Mom was AD/HD							

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		that others got help but she didn't								
		Just wanted more time on tests	Father felt it was all "bogus"							
		Went through child study in high school just to find they would not test to find her eligible for services								
Alyssa 0010										

TWICE EXCEPTIONAL STUDENTS 363

Chart for Open Coding – Don 0002

Elementary	Middle School	High School	College	Obstacles Faced	Internal Resources Strengths	Facilitators-Inhibitors of Personal Developments	Educational Programs and Provisions	Crystallizing Experiences	Environments and Social Contexts	Impact of Strengths and Weaknesses
Didn't remember a whole lot	Father tenured during middle school	Didn't really like high school	Liked science in high school; wanted to study science	Very slow reading speed impeded his progress	He is a good writer; intuitively knows how to write	Facilitators of personal development were his parents	Extra time on tests/ more helpful when taking math and science	Physics was an epiphany in a negative direction; had to change majors	Most comfortable in Christian contexts	<i>Most of his life he has been controlled by his weaknesses</i>
I didn't like elementary school	Loneliness and abandonment	Ran for school president every year of school: credits father's political involvement as catalyst for this	Favorite class in high school was physics	Learning disability	Writing has boosted his confidence	Particularly his father, though he has not always appreciated it/ Now appreciates it more; he was always there to push me and move me forward academically	Disability program in high school; not very effective	Coming to faith was a crystallizing experience	Smaller discussion groups over large lectures	<i>Stress was internalized which made things harder; couldn't talk to others about it</i>
Father was driving force.	People at school liked me; however, they did not spend time with him outside of school	Elected senior class president	I ask good questions; this makes people think I am smart; really I don't know	Slow intake speed: takes a long time to read things	Diligent worker	Wanted affirmation from his father that he did not receive: father very introverted		Call to the ministry		<i>Built up cycle of putting himself in situations that weren't really conducive to my weaknesses</i>
Difficulty with handwriting which slowed down work	Friendships were sparse and insufficient	Personality stuck out senior year	Physics became sort of a religion	Gets stressed out quickly and has panic attacks	Not very organized but has a very diligent work ethic	Mother extroverted; there for him emotionally	Mostly got by on his own	Faith journey created community for him		<i>Large lecture classes played to his weaknesses but stretched him, which was good for him</i>
Learned to type to circumvent weakness	Popular at school but did not carry over to home or invitations to parties	Spent weekends alone	Huge difference between high school physics and college	Difficulty adjusting to the level of rigor at the institution	I do the best I can			Discovering his natural talent for writing; pushed me along as a person		<i>Discussion oriented lectures and small classes played to his strengths</i>

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			physics							
Depressed in Elementary school; can't remember when he wasn't depressed		Did all he could to be extroverted at school	Realized his mind did not work well with physics concepts	Disabilities services were helpful at first when they let him register early for classes. Then they wouldn't let him; hasn't been the greatest of help.	Angry at college for their emphasis on being elite and special and not caring about whether the student was doing well or not. "if you can't hack it, get the hell out"	Pastor was huge inspiration			Philosophy and religions classes were very influential; expanded his own thoughts and ability to think about different view points and different ways of thinking	<i>Depression has been a big part of his life but his perseverance was strong and he worked hard to not let it win over him</i>
Emotional problems run in family		"No one really cared"	Wanted to explore the mysteries of the universe and be a famous physicist			Teachers; especially professors in government department; challenged him to think				<i>Always had an overshadowing sense of destiny and purpose</i>
Internalized conflict in home		Alone at home in back room doing homework	Community at college was not easy; couldn't find a group of friends			Few friends were influential				<i>Always had some inherent belief in God and that things would work out</i>
Mom had emotional problems after his birth		Pressure to have a date for prom due to being president	First semester was hard; academic probation			Bible study group				<i>Family issues and conflict has been part of his journey and impacted him in his weak areas</i>
Mom's job required a lot of traveling		Breakdown near end of senior year; yelled a lot	Everything he thought he knew was not the way it was							
Conflict in dad's job		Breakdown over school and problems in childhood	Church involvement crucial							
Dad a college professor		Couldn't really look	Pastor became							

TWICE EXCEPTIONAL STUDENTS 365

		objectively at his school years even though he knew they were affecting him	counselor and mentor; coming to God was a process							
Dad needed tenure and Don remembers this as conflictual		Angry at mom and dad	Roommate conflict; they were complete opposites							
		Father introverted	Roommate moved; new roommate; he moved in three weeks to a frat house							
		Mom took them to church; Dad fallen out of faith	Alone; doesn't do well by himself							
		Anger at father made him work harder; felt he was never good enough	Female relationships create more angst; gives his life to Christ							
		God was punishing him	Found a community in Bible study that was lacking in his life							
		Depressed most of his life	Junior year his grandmother died; Impacted by her death							
		Fathers	Eulogy at							

TWICE EXCEPTIONAL STUDENTS 366

		inability to deal with his own anger was problematic for Don	funeral revealed Don's gift for speech.							
		Mom not being there a lot made him feel there was no one to go to	Began writing for a campus newspaper; Wrote opinion articles							
		Parent's would have been happier if he were not born	Epiphany that his words had traveled across the world when emailed by someone in Australia							
		Wanted to go to selective institution of higher learning that he was accepted to	Writing and sharing with others helped him discover what he really loved and felt called to							
		Visited the campus and liked it	Felt called to be a minister; Applied to seminaries							
		Came mostly because of the schools great reputation	Degree will be in government and history							
		Felt smarter for having gotten into the college	Dabbled in some religion classes							
			<i>Don will graduate in</i>							

TWICE EXCEPTIONAL STUDENTS 368

Chart for Open Coding – Daniel 0008

Elementary	Middle School	High School	College	Obstacles Faced	Internal Resources Strengths	Facilitators-Inhibitors of Personal Developments	Educational Programs and Provisions	Crystallizing Experiences	Environments and Social Contexts	Impact of Strengths and Weaknesses
Remembers ADD behavior back to kindergarten although he was not diagnosed until his senior year in high school	Impulsive in middle school; I came off as annoying. He felt he was annoying to his teachers more so than his peers	Senior year he started his medication; teacher noticed the difference and told him he was not annoying like he used to be and that he was easier to get along with: Doesn't know if this was a positive experience or not	Dependency on note taking continued in college; he tried not taking notes in one class and missed the entire period. I just remember the first five minutes, then phasing out, five minutes in the middle and then the end.	Daniel feels that there were very few obstacles; teachers attitudes were very upbeat during formative years	I have a deep place where I get a lot of motivation to do things	His parents; their willingness to help and their deep understanding of his personality both strengths and weaknesses	A regional talent search fast tracked him for math and created more challenges for him.	When studying in Australia he began to see grades in a different perspective. A perfect score would mean you were an expert. In Australia an 85 was an excellent score. The assumption was if you made a perfect score you should be teaching the class	He needs to study by himself with wide open tables and well lit spaces.	He is strongest when he is the king of the hill – he has now finished his junior year and feels he has mastered the concepts he needed to master
He was a likeable kid	Sat in the front frequently; mostly because his name began with a B	Developed effective coping strategies by 9 th and 10 th grade.	Class actually went faster if he was taking notes; he was more focused on the clock and his physical presence in the class when not taking notes	College provided the largest obstacle in the administrative realm of trying to get extra time on his tests.	I can push through a million impossible things, keep working at it and make something happen	Father carved out a study place for him when he was very small; his father created the conditions he needed for studying.	He spoke earlier of AP classes creating challenges for him	Figuring out how important it was for him to take notes.	He needs as little distractibility as possible. He can have running dialogues with himself over any objects in a room	When he is ready to move on to something bigger and better he feels like he has mastered his weaknesses and is engaged in improving his strengths.
Teachers could tell he was trying hard to do right even when he was	Daniel had an ability to engage teachers; his desire to please others worked	Took notes all the time. Even when he wasn't really hearing the	Daniel is a very visual learner; he could recall the visuals the professor	Having to be retested before receiving accommodations was	He is better off with a challenge. If he has a 50/50 chance of failure he	Teachers, who were willing to work with him		A deeper understanding and acceptance concerning his need for extra time on tests	He must study with only a few people; the more people the more he is	His weaknesses were greatest his sophomore year when he was overloaded and did not

TWICE EXCEPTIONAL STUDENTS 369

annoying and over-excited	well for him	teacher he would write notes and read them later for recall	put up; power point write ups do not work for him, he needs to take the notes.	frustrating	always does better. Loves a challenge and thrives with it				distracted; exception is group projects where he often takes the leadership role in the group.	apply for the appropriate accommodations for that semester.
Excited about chiming in about topics	Standardized testing uncovered his difficulty with AD/HD due to the timed nature of the tests.	He was in and out of touch during classes; he heard partial parts of the lecture	Some teachers, who provide notes seem irritated that he continues to take notes	His impulsivity was an obstacle. He had to self-manage as to when impulsivity was a good thing and when it worked against him	AP classes were challenging. They were necessary for him.	The Dean of Student's Office made him feel like AD/HD was a joke. They think it is a joke and an excuse to have more time.		His semester abroad was a defining moment for him. It redefined the difference of being an expert and learning what was necessary for general education requirements		
Teachers did a good job of guiding him in a positive way throughout grade school	Daniel remembers always taking longer on standardized tests as well as regular tests.	Writing things down gave him a guide to study	He found after his diagnosis that extra time on tests was essential for success.	He felt that medication was an obstacle for him. It did give more focus but it took away his spontaneity and his sensory intake was suppressed.				His understanding of his loss of sensory intake on medication; medication causes my experiences to be more like a shadow of what it should be.		
Realizes it could have really been a different story growing up	The first time he had a specific time limit was the first time he realized he had a problem.	He would miss huge chunks of the lecture.	His grades improved so much that his teachers thought he might be cheating so they sat in with him to make sure; They	Daniel feels like dependency on medication is not good; the medication is hard on the body and when used regularly						

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TWICE EXCEPTIONAL STUDENTS 370

			couldn't believe that just extra time would improve his grades so much.	requires boosting the levels.						
Most experiences have been good ones: Lots of positive experiences	Daniel was found out accidentally by his parents, who wanted to have his brother tested. The descriptions of the AD/HD disorder fit Daniel more than his brother; family had Daniel tested	Writing notes helped him to stay more focused than with writing	Daniel did not apply for extra time when he first went to college. He survived his freshman year but his sophomore year was a catastrophe	Takes his medicine only when he knows he needs it						
Teachers would say not now Daniel, raise your hand, etc	Mother and sisters are AD/HD but not his brother	He would be distracted by the clock, friends, passing notes, etc.	Sophomore year, first semester was his worst semester by far. Too many extra activities and difficult math; also 18 hours	Feels the stress of the medication when he gets out of the test; heart rate is up and he feels stressed						
I really tried to not do it again	AD/HD manifests itself in sister as very impulsive; he can't tell his mothers	Taking notes was a coping strategy	Professors would not give him extra time; most had done this for him just at his request prior to this	Daniel is very in tune with himself emotionally and physically						

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			year.							
Elementary school he sat in blocks of four desks; like a little pod; Could have been very distracting			Daniel was afraid accommodations would have been on his college record							
Daniel was a people pleaser; I worked hard to make them happy			3 reasons he did not self-identify: Resistance from the Dean of Student's Office His accommodations would be on transcript He felt like extra time was like cheating since others did not get that exception.							
Feels like the focus of his teacher was to help him help himself; made it easier for teacher's to not get frustrated with him			Went to Australia second semester to study: good semester for him.							
He thinks teachers get frustrated with AD/HD kids and then find no real reason			Signed up for testing to qualify for extra-time on tests when he returned. He							

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TWICE EXCEPTIONAL STUDENTS 372

to re-engage with the student; They just blow the kids off			wanted it documented so he could have it if he needed it.							
Daniel managed to keep the dialogue open and kept relationship open with teachers			Daniel is acutely aware of how his AD/HD impacts all of the details involved in the learning							
Daniel - 0008										

Chart for open coding – Sabrina 0005

Elementary	Middle School	High School	College	Obstacles Faced	Internal Resources Strengths	Facilitators-Inhibitors of Personal Development	Educational Programs and Provisions	Crystallizing Experiences	Environments and Social Contexts	Impact of Strengths and Weaknesses
Diagnosed with auditory processing disorder and dyslexia by first grade	Read during down time	Excellent math skills hid Sabrina's disabilities	College made it difficult to get accommodations	Learning to read was obstacle right at the beginning	Perseverance	Hands down her parents	Extended time on tests for time to process which would take her more time	Most have occurred since college: Professor coming up with the word list to help her discriminate	The disabilities lab was scary to her and not helpful. It buzzed because it was too quiet	Courses that required a lot of letter discrimination test me against my greatest weakness
Gifted in mathematics	Used activities outside of school to satisfy social needs: ski racing and pony club	Magnet school would not allow her to have accommodations	College required retesting to certify for disabilities	Finding an elementary school that allowed her to overcome her disability was important	When she doesn't achieve her drive gets her through	College mom was told to step back and Sabrina had to step forward	Good test taker; product of interventions when she was younger	Transition from being more independent and being my own advocate.	Coffee shop is perfect environment: So much noise that she doesn't hear discrete conversation and is able to lock into her work	Reading and telling time were hard but have pushed me in my memory
Special Education tutor	Continued to be advanced in math	School believed that Sabrina's grades were too high to justify accommodations	College would not accept her 504 assistance plan from high school	Telling time was difficulty. Time on a clock looked all the same to her	Obstacles fuel the challenge, the ability supports the disability while the perseverance keeps it driving forward	Key professors that helped her	Use of the computer	Knowing there is more than one way around things	Extended time on tests	Word processing helped with weakness in dyslexia
Math tutor to excel in strengths	GT program in middle school was inside a inner city school with typical pregnancies, gangs, broken windows, and vandalism.	Sabrina takes classes that challenged her disabilities: She feels forced to fail and does fail French even though she has a tutor	Spread between her verbal IQ and performance IQ was more than 40 points	Had to find an environment in middle school that she could excel			Disability impacted writing, spelling and hand writing.		Testing in the same room consistently: habit of being in the same room works like extended time	Power Point notes helped her overcome her weaknesses
Relies predominantly on mom's memory	GT program provided an island in the middle of the chaos	Sabrina puts most of the pressure to excel on herself	She scored average on most tests: she wonders how then is she disabled	GT program was key in this arena; enriching environment even though there were social hurdles at this stage			Hindrance was proving that she was disabled		Few people at the table with her: her word list makes her uncomfortable. People might think she is cheating	Strength in math classes where boys usually prevailed. I was so proud that this little blonde girl beats them
Went to	Tested in eighth	When she	She	High school			She doesn't		Professors at her	Takes pride in

TWICE EXCEPTIONAL STUDENTS 374

Montessori school but it didn't work out for her	grade for a local math and science magnet for 9th grade	doesn't excel she has like a breakdown	experiences angst over knowing she is able but not able to get the result	provided obstacles of not getting recognition for disability and not receiving accommodations			achieve without her accommodations in place		school worked with her and went above and beyond what they were asked	understanding material even when grades are not high.
Problem with reading; missed by teachers due to her ability to make up stories	Magnet school would not allow her 504 assistance plan	Parents won battle and Sabrina later pulled French grades up	College suggest light load her freshman year 12-13 credits. Sabrina was bored and needed more challenge. Deep need for stimulation and challenge	French posed a problem for Sabrina; used summer school to her advantage					Enjoys a challenge or special classes	Loves quantitative and mathematical that involve reasoning and putting the whole picture together; synthesis
Math she challenged herself in all the time	This became a battle between the school and Sabrina's family	BC Calculus in junior year was a problem. She needed preferred seating but teacher made her take turns with others	GPA fluctuated throughout freshman and sophomore year due to a few courses that "sealed her fate."	Doubled up on things she knew would be difficult for her					Classroom size has been important to Sabrina	Excelled when she was with kids that were more similar to her; they also like to read
Content to hear teacher but did her own thing and loved to read once she learned how		Sabrina's grades fall due to being in the back of the room under a fan	Accounting, Applied Statistics, and a math course were frustrating. No matter how much she studied she could not get above a C	In college she had to get used to the teaching environment					Classes that mandated participation were helpful; she learned to participate	4Breing with smart kids regardless of their social problems; her class accepted geeks. They all were geeks.
Left Montessori and jumped from first to second		Teacher not sympathetic	Sabrina changes to a math minor due to math difficulties in college; still loves math and is stimulated by it	Finding out way around specific problems such as classes that were a mismatch for her disabilities						Magnet school helped prepare her for college
Third grade spelling became difficult		Next quarter preferred seating was put on her 504	Her dyslexia made courses like botany and phylogeny	Sabrina's horse and riding became her outlet for						

		plan but the quarter under the fan caused lower grades in the end	difficult. The words were similar and she could not discriminate between them	stress						
Mom worked with her at home through visual and auditory repetition		Sabrina very sensitive to her environment	She had to drop one of her courses which dropped her to eleven hours which was not full time status. Applied for a medical withdrawal	Stress relief from mom and boyfriend; both very supportive						
Mother disagreed with teacher about Sabrina's use of a spellchecker		Fining ways around requirements and negotiating accommodations central to high school	Applied for an under-load which passed through Committee on Degrees before the deadline	Friendships have been a source of strength						
Sabrina cannot discriminate differences in words that are similar		She took French in high school and at a community college. This fulfilled her requirements at her current institution	College required that courses for degree had to be taken there. She again had to apply for an exception to take some of these course at another school during the summer.							
Tested for GT in third but did not make it		Foreign languages impossible since English was like a foreign language to her	Finally had a professor develop a strategy that worked for her: She would have a word list that he would give her or pre-approve. This made the discrimination problem better.							

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Fourth grade made it for GT pullout		Psychologists recommended she avoid foreign languages	The word list became a part of her permanent accommodations; Alphabetized word list helped her see the differences							
Fifth grade made it to GT center		Took classes in summer to allow for a better schedule during school	Feels like professors at college have worked with her to brainstorm ideas to help her learn							
Sabrina felt that the color of her skin made her stand out in public school regular ed. "She was the only white, blond haired, blue-eyed," Experiences some bullying		Took Physics at a community college (she needed it for premed major)	Meets with professor every week and works hard							
Found her solace in reading. She isolated from her peers but was also interested in what she was reading			Goal to have GPA above 3.0. This semester brought it to 3.05							
Sabrina made up stories and the teachers thought she was reading. Her mom asked them to look over her shoulder.			Difficulty adjusting to appropriate accommodations, different teaching styles, becoming her own advocate							
			Wants to go to graduate school for business or veterinarian school.							

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			Sabrina loves research and would like a master's program geared towards research.							
			Veterinary school very competitive							
			Master's of Science would require changing schools; things are working for her in her current institution							
			MBA not a problem; professor recommended her							
			Learning environment is more important than the study method. It is the difference between passing and failing.							
Sabrina - 0005										

TWICE EXCEPTIONAL STUDENTS 378

Chart of Open Codes – Heather - 0012

Elementary	Middle School	High School	College	Obstacles Faced	Internal Resources Strengths	Facilitators-Inhibitors of Personal Development	Educational Programs and Provisions	Crystallizing Experiences	Environments and Social Contexts	Impact of Strengths and Weaknesses
Heather was identified gifted at age 4	Both challenges and adventures	Heather went to public school	Heather began college and family decided to have tumor that was found radiated over her Christmas break.	Emotional Depression: Circumstances like when my grandmother died, and just in terms of college, and I was constantly in battle with the Dean of Students office,	Her greatest strength is her personal history (Because of what she has been through, she has the sense that she can survive anything at this point)	My parents, definitely my parents were great facilitators. They were great advocates for her and pushed her to do the best she could. "I don't know exactly how things would have turned out for me if I had a different set of parents	Enrichment programs at an early age: after school or over the summers	Age sixteen when things were happening to Heather that created a difficult scenario for her both personally and academically. Latin rose to a different level in my life. I realized I loved translating	When Heather takes a compressed version of a class it serves her well: I always felt like I needed to have an intense narrow focus on a subject in order to really "feel it in my gut."	Heather felt that in fifth grade and eighth grade she was at her strongest in terms of having people recognize that she was talented and that she was a good writer and very proficient.
Though gifted, it was clear that there were efficiency in specific areas, especially math	Two private schools; one small one Catholic and larger.	She participated in dual enrollment during her junior and senior years.	First semester of college went well except for Greek I. The symbol system was difficult because of her dyscalculia.	When her grandmother died	Her perseverance has served her throughout the difficulties she has weathered throughout her life.	Heather states that she has been the greatest inhibitor to her own success; I struggled over things that were happening; however, when I realized that I had to overcome things it was a turnaround point for me."	Northwestern Center for Talent Development English courses	Acquiring her driver's license. This gave heather a sense of freedom and ownership. I felt more in control of my life. (Her blindness in her right eye made her think this was unachievable) This was a step towards independence	Heather works better in spurts of time; however, she doesn't feel teachers understand this mode of learning.	My weaknesses culminated at 16 when things just suddenly fell apart. It was physical and emotional; even through her academics weren't particularly strong either.
Poor vision in right eye; could not line up numbers correctly; inability to interpret them correctly	Little control over choice of teachers or people to become friends with	Heather remembers a few good teachers sprinkled throughout	Heather told her Classic's professors about what she was going through. It was helpful because they were very supportive	Battle with the Dean of Students Office (researcher pursued this see interview narrative)	Her parents were a great resource (they traveled with her, exposed her to cultures, allowed her to learn different and new things, and took her to different forms of the arts)			Teaching has been a turning point for her. She finds it exhilarating. She feels like she is the master of her own destiny when she is in the classroom.		Throughout her stormy times she continued to feel there were things she would always be able to do. She still loved characters in books and she always would have her Latin ability that would never go away (I found out later that it could if I didn't stay on it)
Hated math, due	Learned her love	She had a great	Recuperation	Physical			Taking college			She was the

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to struggle, and did not tune into concepts at all	of languages at the small private school due to a very effective French teacher	chemistry teacher that inspired her about the subject regardless of her deficits in math	should have taken 3 months but for Heather it was a year and a half. She needed 14-15 hours of sleep a day	sickness and pain			classes during high school. They were challenging and she did better because they were.			weakest following her radiation treatments; her inability to stay awake for long periods of time and not being able to think squarely enough to organize my thoughts was disturbing.
Voracious and astute reader	Heather's mom home schooled her in Latin	Chemistry teacher wrote recommendation for college: worked to her benefit because teacher could address Heather's strengths and weaknesses	Heather had a negative reaction to the radiation and ended up having to take a reduced load the next semester.				Heather went to Governor's Latin academy. She describes this as a terrific experience. Great community with all the kids who were gifted			
Liked to think deeply about reading	French was Heather's first experience with a living language	Heather was diagnosed with depression; this teacher became a confidant.	Heather felt like she would not be academically successful again.							
Very creative with presentation and imitation of characters	French teacher appreciated Heather's background in Latin; She was annoying when she answered all the question and continually interjected information	Difficult time for Heather. Difficulty in her intellectual studies because she couldn't think in a logical pattern.	Dean of Students office mad it difficult to get a reduced load							
Presentation of book in fifth grade was a turn around point; peers finally recognized her talent	English teachers not very engaging or steeped in their subject	Heather's physical life was deteriorating and her grandmother was dying "It was just a dark period in my life"	Heather was diagnosed with fibromyalgia. If she wasn't asleep she was in tremendous pain.							
Very introverted in elementary	She antagonized her teachers	Heather was taking Latin as	Even though school was							

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school	because she felt she knew more than they did	an independent study but became unable to focus and force herself to study	impacted she found outlets in theatrics, socializing and in sleeping.							
Heather did not recognize her own giftedness even though parents and teachers did	Challenged teachers regarding the low level of reading required. Why no Les Miserable? Teachers asked how she knew the difference? She responded that she had read it twice.	AP English was conflictual; It was not challenging and Heather's physical illness was impacting. Her medication made it hard for her to concentrate	September 11 happened during her first semester of her sophomore year. She took it very deeply and ended up failing all of her classes. She could not concentrate enough on anything							
Gifted program at school less than stellar, entirely self-directed; no challenges; immense diversity of ability	Confrontational with teachers most of the time	Heather experiences difficulty in English presentation about American Author, Edward Albee; she couldn't go on and asked if she could do it another day. Teacher said she would lose 20 points	Heather wanted to be an English major but her mother wanted her to teach Latin. She was defiant and continued to try to maintain her English major. However, she was having difficulty constructing a sentence much less an essay							
Gifted program frustrating and not beneficial academically	Moved school in eighth grade. She had an English teacher who liked her, but in general her confrontational pattern continued.	Heather was sixteen at this time but it has so impacted her that it helps her understand the students she teaches now	She didn't know if it was the radiation or the depression or the pain. "You could never really tease those things out from one another."							
	Heather felt that teachers were doing battle with her over her lack	Heather felt like teachers were playing games; she	Heather was also diagnosed with ADD and was put on							

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	of organizational skills. They focused on her weakness and not her strengths.	wanted out of school. She graduated high school a semester early.	Ritalin. She still could not concentrate.							
	Penalized for process and not rewarded for content	Heather qualifies that it was not just teacher but block scheduling that made it difficult to pass the AP exam. They were tested in May on subjects they took in December.	Dean of students office ended up being very unhelpful during this time.: Heather had no more emotional energy to give to the struggle							
	Heather had a weakness in following directions: the procedural side of things	Heather enjoyed her AP exam in Latin and English because she found them invigorating.	She went to work at a quilt store and skipped the beginning of her junior year.							
	She did not know at this time that she was ADD; She knew she had dyscalculia		She came back with a reduced load but her organizational problems merged to the forefront and almost ended her college career.							
	Strong discrepancy between her performance score and her verbal and mathematical ability: Heather felt dissonance at this time		Writing had become difficult. She couldn't organize her papers. She couldn't even get started. She loved subjects earlier in her life and would write random essays all the time.							

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	She looks back now and it makes more sense, especially through the filter of all she discovered at 16		Heather switched majors to Latin because it required little writing.							
	This period in her life has impacted her as she teacher Latin in a large county. She strives to do things differently and has compassion for those students who are much like she was.		Heather left college on a medical withdrawal and signed a contract that she would do things to keep up with her health. She was supposed to go to counseling but when she tried to get an appointment they were booked. She ended up with one counseling session. At her mid-year review she was told she was out of compliance with her contract and would have to leave school. This increased her depression							
	Took Latin II in eighth grade. Competitive with three bright boys in her class but could not exceed their scores. Finally she scored gold in National Latin Exam and stopped competing		Heather's classics professors allowed her to come to class to stay up with her subjects even though she received no credit. "I took them to stay active."							
	Eighth grade math teacher set up a system of success		Heather's break through came							

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	for his class. Ground Hog Day (everyone got redo's until they scored at least 80 This teacher broke math down line by line.		somewhere between second semester of her sophomore year and the first semester of her junior year. She derived a different social group through classics club.						
	Withdrew before end of 8 th grade. Was declined for National Honor Society because she did crossword puzzles in class.		She directed a play and began to feel confident about herself.						
	Her classroom battles were rooted in part to a feeling of not belonging. Her teachers didn't appear to care about students or their own learning		The next year she directed a larger play. She loved combing the classics with the theatre and this cemented her feeling confident about her abilities						
	Heather's deep desire for learning and reading created dissonance when she realized her teacher's were less motivated for intellectual stimulation; They never encouraged her in her advanced reading.		Her play was like her "magnum opus" for her college career. She finished school after five years.						
			Her chronic pain returned and she got numbness in her left shoulder. Heather went through some						

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			<p>excruciating tests; She pressed through the year even though she was struggling in Geology class. Her teacher did not know about her physical struggles</p>							
			<p>She made up the Geology class over the summer and graduated in August.</p>							
Heather - 0012										

Appendix I

Codes into Categories from Open Codes

Codes into Categories – Alyssa 0010

INTRAPERSONAL									
Motivation									
Motivation/Initiative	I was willing to do extra work in order to get good grades	Puts in extra time to produce a good product	Buddies up; has a friend to go to the studio with her after hours	Will power and determination and recommended interventions, should help meet academic challenges in college	Found strategies to overcome disabilities				
Motivation/Needs	Ability masked disability	Multiple Disabilities	Dyslexia; AD/HD; Slow Processing Speed; Non-determined learning disability	In order to produce a perfect product it takes her more time; needs better time management	Thrives on small rewards not large ones.				
Motivation//Perseveration	Things took longer to finish in middle school and high school	I was willing to do extra work in order to get good grades	Works diligently and consistently	Finds her personal passion and goes for it	Puts in extra time; Has high expectations for herself				
Motivation/Interests	Enjoys being with people and being involved. Socially Successful	Friends help her stay motivated and on top	Active in student government	Wanted to study business and psychology; ended up in art which she loves but was not going to major in.	Artistic and visual ability has been used positively to learn new material				

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Temperament/Personality									
T/P/Adaptability	Unable to compensate and accommodate for herself	This worsened in high school	Changed major in art in order to be successful and competitive at college						
T/P/Attitudes	Did well but time issues impacted self-esteem	I was willing to do extra work in order to get good grades	Father not supportive of testing. Felt like all of her difficulties were "bogus"	Her weaknesses were greatest when she transferred to selective institution					
T/P/Competitiveness	What could she have done on SAT if she was given accommodations	Felt conflict and dissonance that others received help but they refused her	Middle school I was not longer the top of the class						
T/P/Independence	Puts in extra time	Transfers from first university in order to get placed in a more selective university which was closer to home.	Decision to change from business to art major in order to be successful						
T/P/Self-Esteem	Elementary school was easier than other grades	I felt like I got stupider over time	I was the star that shined in elementary	Peers started making fun of how long her assignments took.					

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T/P/Values	Honest with self; realistic with herself	Alyssa like to be in environments that didn't expose her weaknesses due to her disabilities	Her desire or need to excel and perfect her product works against her; high personal expectation exposes her weaknesses	Values environments that allow her to work at her own pace.	Will not sacrifice product even when it requires turning it in after the deadline				
ENVIRONMENTAL									
Environmental/Surrounding (Home, school, community, etc.)	Mother was diagnosed with AD/HD	Severity of brothers LD masked the problems Alyssa was having							
Environmental/Persons (Parents, teachers, mentors, etc.)	Attended public school	Students brighter and more competitive	Met with the Dean of Academics weekly for two year. She became counselor and mentor	Parents paid for Alyssa to be tested once high school was out. School would not test	Teachers in middle school and high school were inspiring				
Environmental/Undertakings (Activities, courses, Programs, etc.)	Participated in GT program throughout school	Participated in Partial Japanese Immersion program in elementary school	Honors classes but always the last to finish work	College in South Carolina had great resources and facilities for LD students	Not eligible for services due to high GPA in middle school and high school	Lack of the availability of a consistent format to take tests when extra time was needed.	AP classes in high school	Governor's School for the Arts	Summer workshop at a national art gallery
Environmental/Events (Encounters, awards, accidents, etc.)	Changing institutions after her freshman year	Selected for Governor's School of the Arts	Speaker at high school graduation						

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Codes into Categories – Don 0002

INTRAPERSONAL									
Motivation									
Motivation/Initiative	Because of Don's ability to write and speak was acknowledge at his Grandmother's Eulogy, he began to consider working in a ministerial position. Through this he feels "called" to the ministry.	Chose a selective institution of higher learning that he was accepted to, over other colleges that had accepted him. He felt smarter having gotten accepted at this college.	Don is a very diligent worker with a strong work ethic.						
Motivation/Needs	Writing has served to boost his confidence								
Motivation//Perseveration	Don continued to do academically very well.	Don spent numerous hours doing his school work to the point of ignoring outside interests	Anger at his father made him work harder; however, he never felt he was good enough.	Depression has been a big part of his life but his perseverance was strong and he worked hard to not let it win over him.					
Motivation/Interests	Don enjoy science in high school and wanted to study Physics at								

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	college								
Temperament/Personality									
T/P/Adaptability	Difficulty adjusting to middle school; small for his age; exhibited behavior that indicated stress was increasing.	Tried hard to be extroverted at school during his senior year; hoping this would gain more friends	Dan feels like he doesn't do well by himself; needs a roommate; however, has had problems keeping roommates	Dons has had difficulty adjusting to the level of rigor at his institution. He had a rough start his first semester	Don underestimated the academic difficulty of the school, especially in respect to math and science				
T/P/Attitudes	Don did not like elementary and did not have positive views about this period	Continued to experience stress related to time it would take him to complete assignments	Depressed in elementary school; can't remember a time he wasn't	Internalized conflict at home	No one really cared	He began to measure his self-worth based on his academic achievement	Don has an epiphany when he gets an email from Australia in response to his column. He realizes he can touch people even across the World.	Writing and sharing with others helped him discover what he really loved and felt called to do.	Don did not appreciate his father's help at first, but now he has come to realize it was necessary for him to move forward academically
T/P/Competitiveness	Don is a good writer; intuitively knows how to write	Built up a cycle of putting himself in situations that weren't really							

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		conducive to my weaknesses							
T/P/Independence	Father was against him going to the selective institution He encouraged him to go to a less competitive college. Don decided against his father's wishes. Don's father felt the academic environment would simply be too difficult for Don	Don felt like he mostly got by on his own.	Epiphany in a negative direction. Physics proved to him that he did not have adequate though processes for this major; He changed his major to government and history						
T/P/Self-Esteem	People outside of school liked Don; however, they did not spend time with him outside of school.	Female relationships create more angst for him. The heartbreak from this led him to a epiphany of faith.	Don had to reassess everything he had believed true about himself; he thought he could major in science but college showed him that this was not where his strengths were. He had to change him major,	Most of his life he has been controlled by his weakness	Faith journey created a community for him	Discovering his natural talent for writing pushed him along as a person			

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T/P/Values	Don prides himself in the fact that he asks very good questions; This makes people think I am smart when really I don't know	Wanted affirmation from his father but never received it. His father was very introverted.	Angry at the college for their perceived emphasis of elitism. "If you can't hack it, get the hell out."	Coming to faith was crucial for Don. Along with his subsequent call to the ministry	Philosophy and religions classes were very influential; expanded his own thoughts and ability to think about different view points and different ways of thinking.	Always had an overshadowing sense of destiny and purpose.	Always had some inherent belief in God and that things would work out.		
ENVIRONMEN TAL									
Environmental/Surrounding (Home, school, community, etc.)	Friendships spares at school and not sufficient	Church became a very important turn around opportunity for Don	The institution that Don attended was not particularly cooperative in helping Don succeed; they would not allow him to have the accommodation that he needed to help make him successful	Disabilities program in high school not very effective.	Smaller discussion groups were better for Don over large lecture classes	Discussion oriented lectures and small classes played to his strengths.	Family issues and conflict has been part of his journey and impacted him in his weak areas.		
Environmental/Persons (Parents, teachers, mentors, etc.)	Don had a difficult time learning to read. His father began to spend a great deal of time working with him to learn to read	Emotional problems ran in the family	Conflict at home included mother traveling a lot; father trying to get tenured; and emotional problems his mother had after his birth.	Don's pastor became his friend and his mentor.	Parents were facilitators of Don's development. His dad carefully monitored completion of assignments	Don's pastor was a very important influencer in his life. He was a huge inspiration to him.			
Environmental/U	Don tested at the	Word	Don's	Disabilities	Don was				

ndertakings (Activities, Courses, Programs, etc.)	end of kindergarten, 10 th percentile, repeated kindergarten with no change; tested for learning disabilities	processing was taught in order to circumvent weaknesses	involvement in church and a bible study created a community for him that he had not had before	services were helpful at first; they let him register early for classes second semester; However, they would not allow it after that semester. It is not an accommodation they felt like he needed, even though it had been successful with it.	allowed extra time on tests to help his disabilities.				
Environmental/Events (Encounters, awards, accidents, etc.)	Don gives an eulogy at his grandmother's funeral. It is at this event that he discovers his gift for speaking and writing	Don began to write opinion articles for a campus newspaper.	Grandmother died his junior year						
Chance	Don had a form of dyslexia. He had very slow reading speed that impeded his progress.								

Codes into Categories – Daniel 0008

INTRAPERSONAL									
Motivation									
Motivation/Initiative	His sophomore year was his harder semester by far. He was involved in too many extra activities and difficult math; also was carrying 18 semester hours.	I have a deep place where I get a lot of motivation to do things. Daniel loves life. He has great drive and is extremely optimistic.	I can push. Through a million impossible things, keep working at it and make something happen.	Daniel has completed things on his own initiative and his own drive.					
Motivation/Needs	He found that extra time on tests was a necessary accommodation for him when he was taking tests.	Daniel felt that medication was an obstacle for him. It gave him the focus he needed but stripped him of the spontaneity and the sensory intake he was used to.	AD/HD was a significant obstacle resulting in under performance on timed tests	Daniel has a very social side that compels him to spend a lot of time in extra activities					
Motivation//Perseveration	He received the accommodations even when his teacher's thought he might be cheating because it improved his grades so much.	through a million impossible things, keep working at it and make something happen	Daniel is a man of strong vision. He dreams up things he wants to do and actually does them.						

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	They sat with him to make sure he wasn't cheating.								
Motivation/Interests	Daniel traveled with a drama group. It was all consuming for him and his family.	Daniel has a propensity to get over involved in activities. This can be good for him but it can also cause him difficulty. He has a hard time maintaining a good balance.							
Temperament/ Personality									
T/P/Adaptability	Daniel was a like able kid and was very bubbly, could not sit down, and teachers stated that they were sure if he could just pull up a chair beside their desk he would be in heaven.	Most of my experiences have been good ones. Lots of positive experiences.	Daniel's ability to engage his teacher, his desire to please others worked well for him. He love middle school and he was into everything.	Daniel developed writing notes as the most effective coping strategy for his lack of attention. He took notes all the time.	Even though Daniel took notes in class, this did not guarantee his attention. He used his notes as a guide for recall and study. Even if he hadn't directly heard the lecture he wrote down everything the professor was saying.	Daniel chose not to test for accommodations when he first came to college. After a horrendous semester his sophomore year and a semester abroad, he returned and	Daniel tested for accommodations the summer of his junior year. He became acutely aware of how his AD/HD impacted all of the details involved with learning and		

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						submitted for the testing required to receive accommodations.	was crucial for his success		
T/P/Attitudes	Teachers could tell he was trying hard to do right even when he was annoying and over-excited.	I was impulsive in middle school; I came off as annoying. He felt he was annoying to his teachers more so than his peers.	Daniel felt that there were very few obstacles; teacher's attitudes were very upbeat during formative years.						
T/P/Competitiveness	Daniel excelled in math and was always in advanced classes.	I am better off with a challenge. If there is a 50/50 chance of failure I am always better off. If there is a chance I can fail, I do better. I love a challenge and I thrive with it.							
T/P/Independence	The focus of my teachers was to help me help myself, this made it easier for them to not get frustrate with me.	Thrives in environments that offer variety.							
T/P/Self-Esteem	Daniel is very in tune with	He learned early to lose well. He	He is strongest when he has the	He is strongest when he is ready					

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	himself emotionally and physically.	ran for office in class and lost repeatedly. Eventually he began to hold positions of leadership.	sense that he is "king of the hill" He has not finished his junior year and feels he has mastered the concepts he needed to master.	to move on to something bigger and better; he feels like he has mastered his weaknesses and is engaged in improving his strengths					
T/P/Values	Daniel was a people pleaser: I worked hard to make my teachers happy.	Daniel felt that dependency on medication was not good. The medication was hard on the body and when used regularly required boosting the levels. He takes his medicine only when he needs it.	Daniel has a strong faith in Jesus Christ						
ENVIRONMENTAL									
Environmental/Surrounding (Home, school, community, etc.)	Daniel was made to sit in groups of four in elementary school. He thinks back that this could have been very distracting.	Standardized testing at school exposed Daniel's AD/HD. He remembers the first time he had a specific time limit was the first time he realized he had a problem.	Anything in Daniel's environment can become a distraction for him when he needs to stay focused. He can have running dialogues about any object in his environment	College provided the largest obstacle in the administrative realm of trying to get extra time on his tests: having to retest to receive his accommodations was extremely	Daniel can study only well by himself with wide open tables and well lit space. Distractions need to be limited or he will make up huge				

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			that will take his attention off the teacher, homework, study, etc.	frustrating.	dialogues with inanimate objects in his head.				
Environmental/Persons (Parents, teachers, mentors, etc.)	Teachers did a good job of guiding him in a very positive way throughout grade school. Teachers were willing to work with him to work with him and had a huge impact on him.	Daniel realizes how different things could have been if he had not had the parents he had.	The focus of my teachers was to help me help myself, this made it easier for them to not get frustrated with me.	Daniel's parents were worried about his brother and had gotten literature about AD/HD. They realized that this disorder fit all the characteristics of Daniel. They then had him tested.	His parents were there for him and demonstrated willingness to help and their deep understanding of his personality, both strengths and weaknesses, were always measured into anything that helped him with.	Daniel looks up to his father as a role model and would credit him with being very important in his life.	The Dean of Student's Office made him feel like AD/HD was a joke. They think it is a joke and an excuse to have more time.		
Environmental/Undertakings (Activities, courses, Programs, etc.)	Daniel tested for accommodations the summer of his junior year. He became acutely aware of how his AD/HD impacted all of the details involved with learning and was crucial for his success.	AP classes were challenging and therefore I did better in them.	Daniel was tested in a regional talent search. This allowed him to be fast tracked for math and created more challenges for him.						
Environmental/Events (Encounters, awards, accidents, etc.)	Daniel studied one semester in Sydney.	Medication made him aware of what you gain							

<p>etc.)</p>	<p>Australia. He began to see grades in a different light. A perfect score would mean you were an expert. In Australia an 85 was superior. A perfect score was saved for the experts. This was a defining moment for him.</p>	<p>and what you lose with medication. He learned to take it only when it was necessary so that he could retain his spontaneity and his sensory intake.</p>						
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TWICE EXCEPTIONAL STUDENTS 400

Codes into Categories – Sabrina 0005

INTRAPERSONAL									
Motivation									
Motivation/Initiative	Loved to read once she learned how and was content to do her own thing. When she did start reading, they complained that she spent too much time in the library room by herself.	Want to go to Veterinary School but understands the difficulty changing schools will bring. She knows she will get into the MBA program at her current institution. Sabrina was accepted to Veterinary School and has decided to take the challenge. This is what she has worked for.	Success is very critical for Sabrina.	She wants to succeed so badly that she puts unprecedented effort in order to gain the desired result.					
Motivation/Needs	Diagnosed with auditory processing disorder and dyslexia by first grade; also found to be gifted mathematically.	Learning to read was an obstacle for Sabrina right from the beginning.	Finding an elementary school that allowed her to work on her disability was important.	Telling time was also difficult for Sabrina. Time on a clock looked all the same to her.	Inhibitors were just about at every encounter with a school official. Once they were convinced they became her advocates.	Courses that require a lot of letter discrimination test me against my greatest weakness.	Excels when she was with kids that were more similar to her; they also liked to read and loved a challenge		
Motivation// Perseveration	Sabrina has leaned through	When she doesn't achieve,	Obstacles fueled the						

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	her trails to never take not for an answer. She has tremendous perseverance.	her drive gets her through. She developed the ability to advocate for herself.	challenge, the ability supports the disability while the perseverance keeps it driving forward.						
Motivation/Interests	At two and a half Sabrina was doing fifty-five piece puzzles. Entertained herself in a variety of ways; challenged herself in mathematics without prompting.	Sabrina math skills hid her disabilities. The school complained that she was an A student and id not need any accommodations . Her family fought for her accommodations in junior high and had to fight again in high school							
Temperament/Personality									
T/P/Adaptability	Sabrina had learned that being in the front of the room was critical for her; however, her junior year in BC Calculus; her teacher made her sit in the back under a	Finding ways around requirements and negotiating accommodations was critical for Sabrina in high school and college.	Sabrina took courses in the summer to allow for a better schedule during the school year.	Sabrina wanted to be a math major; however there were a few math's that were impossible for her. She had to settle for a minor in math. Her experience required her to apply for an	Sabrina had to apply for special permission to take some of her general education requirements at schools during the summer.	It is often difficult to adjust to obtaining appropriate accommodations, different teaching styles, and the nuances of becoming her own advocate.	She has become a good test taker; this is a product of interventions when she was younger.	Sabrina has learned through her struggles that there is always more ways around things than one.	

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	fan; her grades plummeted. She already is visually and auditorially compromised and she could not see or hear the teacher. The next quarter Sabrina made sure preferred seating was on her IEP.			under-load or a medical withdrawal.					
T/P/Attitudes	Sabrina felt like the school forced her to fail French by not allowing her to have the accommodations she had been given on her 504 in middle school.	Sabrina had learned in middle school how to be her own advocate and had become pretty good at it.	Sabrina experiences tremendous angst over knowing she is able but cannot get the result she wants.	Sabrina does better with a larger load, due to the challenge. She entered with a light load and found herself bored and not doing as well. She has a deep need for stimulation and challenge	Sabrina respects adults and was not always comfortable challenging their authority, but she has learned to be tactful.	Most educators think that accommodations give these kids an advantage. Nothing could be further from the truth.	Dyslexia is a very private condition. The victim is all alone. Everyone around is successful and puts forth very little effort in order to be successful.		
T/P/Competitiveness	Sabrina mastered things quickly and would move on. She was able to conceptualize the problem and did not need to get her hands on it; she was thinking on a higher level than her school could accept. She was	Sabrina puts most of the pressure to excel on herself; When she doesn't succeed she has a breakdown.	Sabrina wants to end her year above a 3.0. This semester has brought her GPA to 3.05.	GT program was key in helping Sabrina; enriching environment was sustaining even when there were social hurdles					

	always pushing herself forward.								
T/P/Independence	Sabrina challenged herself in mathematics early on. She mastered all the math activities in the classroom; all the way up to the 3rd grade level in first grade.	Sabrina found her solace in reading. She was very verbal at home but drew inward into thought at school. She was interested in everything around her; mostly how things worked. She would even look at the mechanics of rides when she was taken to nearby theme parks.							
T/P/Self-Esteem	Spelling tests were difficult for Sabrina. She would crumple them in frustration. She could not even blend two letters together. She was a perfectionist and she did not like to fail	Sabrina is outgoing and has high self-esteem. She also has a very high IQ.	Sabrina feels "on a roll" since her professor helped her to utilize a word list for efficacy in her testing and learning.	Her transitions from being more independent and becoming her own advocate have boosted her self-esteem.	Strengths and weaknesses are apparent every day. On compensates for the other.				

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T/P/Values	Sabrina valued and enjoyed reading. There was concern that she was isolating from her peers, but she actually enjoyed reading.								
ENVIRONMEN TAL									
Environmental/Su rrounding (Home, school, community, etc.)	Went to Montessori school in first grade but it didn't work out for her. They did not catch the fact that Sabrina was making up stories when she read; they thought she was reading fine. They would not accept that she had learning problems.	Went to public school and tested into the second grade. . Even in third grade she would pick her own spelling words and over challenge herself. This was problematic with her spelling problems.	The more structured environments worked best for Sabrina. Environment was key for Sabrina.	College would not accept her 504 Assistance Plan. They required retesting to certify for disabilities and even with this some professors did not believe in accommodations but the were forced to comply. Some have caused her to fail or withdraw.					
Environmental/Pe rsons (Parents, teachers, mentors, etc.)	Sabrina has a special education tutor as well as a tutor for her strength	Mom worked with Sabrina at home to help her master her spelling words.	One of Sabrina's teachers in sixth grade indicated to	Sabrina's IEP pull-out teacher enjoyed her so much that she kept	College made it difficult to get accommodati ons. The	Sabrina had a college professor that brainstormed ways to help			

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	in mathematics so she could excel in her strengths. .	She set up an easel and drilled her each night until she had mastered them by the end of the evening. She tried to use strategies that assisted her through visual and auditory repetition	her mother that Sabrina was a great candidate for the local math and science magnet. She exhibited maturity and desire more than many who got into the program.	recommending that she remain with her. Sabrina was very bonded to the adults that worked with her.	Dean of Students over Disabilities was strict and held to the rules. The rules were strict, but fair.	Sabrina learn and succeed. He developed a word list for Sabrina that helped her circumvent her visual discrimination issues. This became a part of her accommodations. She was grateful for the help this teacher gave her			
Environmental/ Undertakings (Activities, courses, Programs, etc.)	Tested for GT program in third grade but did not make it, tested fourth grade and made GT pullout, tested fifth and did not make it; however, mom went to battle for her entrance into the program. She felt like Sabrina was ready for it and it was the best environment for her at this time. She didn't feel this way at	GT Program in middle school was a school within a school and was housed in a rough urban school. Sabrina felt like it was an island within a very chaotic environment.	Sabrina used activities outside of school to satisfy social needs. She was involved in sports: ski racing and pony club were a big part of her life.	Sabrina tested for the science and math magnet in 8 th grade and was accepted. However, she was unaware that her accommodations would be taken away from her and another battle for services would have to ensue.	Sabrina's horse and riding are a healthy outlet for stress. She also receives support from her mother and boyfriend. Her friendships have also been a source of strength.	Extended time on test, which gives her time to process, is critical for Sabrina.	Reading music: reading music helped her with her academics. Utilizing gross motor skills is important but it is the fine motor skills that are problematic for the dyslexic.		

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	earlier junctures.								
Environmental/Events (Encounters, awards, accidents, etc.)	Sabrina's mom lost the battle to the third grade teacher over the use of spell checker. The teacher wanted her to use it, but her mom wanted her to learn to spell. The spell checker is a part of Sabrina's strategies to this day.	Sabrina's parents hired a professional advocate to interceded for her loss of accommodations when she sent to the magnate school; however, the battle did not get won before Sabrina took French and failed due to lack of services. The next year her accommodations were put in place and she managed to pass French.							
Chance	Sabrina cannot discriminate differences in words that are similar. She had services target to her speech and auditory processing problems	Sabrina's psychologist had warned the parents that she would not do well with foreign languages. English was like a foreign language to her.	Time has always been an obstacle for Sabrina.						

Codes into Categories – Heather 0012

INTRAPERSONAL									
Motivation									
Motivation/Initiative	Even though Heather was impacted in her academics, she found outlets at school in theatrics, socializing with her friends in Classics Club, and in sleeping.								
Motivation/Needs	Poor vision in her right eye due to surgery when she was younger. It impacted her ability to line up numbers correctly; she has an inability to interpret them correctly.	Parents may have inadvertently been inhibitors at times due to pressuring her to perform when she was not ready or not comfortable.	When Heather takes a compressed version of a class it serves her well. I always felt like I needed to have an intense narrow focus on a subject in order to really “feel it in my gut.”	Heather works better in spurts of time; however, she doesn’t feel that teachers understand this mode of learning.					
Motivation// Perseveration	Heather believes her greatest strength is her personal history. Because of what she has been through, she has the sense that she can survive	Her perseverance has served her throughout the difficulties she has weather throughout her life.	Heathers ability to address her difficulties in math by doing extra practice and also with a math tutor at key stages helped her.	Heather has a strong sense of persistence and adaptability to new circumstances.	Challenges that required precision or psychomotoric skills were frequently overwhelming for her.				

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	anything at this point.								
Motivation/Interests	Heather learned her love of language at a small private school due to a very effective French teacher. This was her first experience with a living language.	Heather's deep desire for learning and reading created some dissonance when she realized her teacher's were no motivated to intellectual stimulation. They never encourage her in her advanced reading and never talked about anything they were reading in their own time.	Middle school included both challenge and adventures; Heather took 3 years of piano and switched to voice lessons when her music interests shifted. In 7 th grade she began theater work and 8 th grade performed at her private school. This continues to be a passion for her. The arts helped her as her academics through this year became more bland and stultifying.	Her work in theater with professional delighted her and caused her to grow and develop.	Age sixteen when things were happening to Heather that created a difficult scenario for her both personally and academically. Latin rose to a different level in my life. I realized I loved translating.	Teaching has been a turning point for her. She finds it exhilarating. She feels like she is the master of her own destiny especially when she is in the classroom			
Temperament/Personality									
T/P/Adaptability	Heather teaches Latin in a large county now. She strives to do things differently and has compassion for those students who are much like she	Heather's numerous encounters with less than stellar teachers and her continued battle with teachers who did not understand her disabilities	Heather changed her major to Latin because it required little writing.	Heather's break through came somewhere between second semester of her sophomore year and the first semester of her junior year. She derived a	In the midst of all that Heather was going through, she directed a play. It was successful and she began to feel	Heather's pain returned her senior year. She was left with numbness in her shoulder. She had to go through some painful test;	Heather took classes every summer except one after her withdrawal to keep up work and did better in	Heather learned coping strategies with many of her problems early on. She also learned to	Heather has a strong sense of persistence and adaptability to new circumstances.

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	was.	much less the physical problems she was going through led her to graduate a semester early from college. She was tire of the games she felt teachers played with her.		different social group through Classics Club.	confident about herself again. The next year she directed a larger play. She loved combining the classics with the theatre. This cemented her feeling confident about her abilities.	however, she pressed through the year even though she was struggling in Geology class. She ended up repeating the class in the summer and graduating in August of 2005.	summer terms. She found them shorter, more intensive, and generally less demanding. Her AD/HD was more under control in short time frames.	find friends who would protect her from those who made fun of her.	
T/P/Attitudes	Heather hated math and did not tune into the concepts surrounding it at all	Heather's background in Latin was appreciated by her French teacher; however, Heather states that she could sometimes be annoying when she answered all the questions and continually interjected information.	Heather often antagonized her teachers because she felt she knew more that they did. She was confrontational with teachers a lot.	Heather did not know if her problems were due to the radiation or the depression, or the pain. "You could never really tease those things out from one another."	Heather's strengths had now become a weakness. Writing had become difficult. She couldn't organize her papers. She couldn't even get started. Earlier in her life she wrote essays for enjoyment.	Heather's play was like a "magnum opus" for her college career. She was finishing school finally after five year.	Heather believes that she has been the greatest inhibitor to her own success; I struggled over things that were happening; however, when I realized that I had to over come things, it was a turning point for me.		
T/P/Competitiveness	Heather was a voracious and astute reader.; She like to think deeply about	Heather always read quite at a higher level than her classmates. This made her	Heather challenged teachers regarding the low level of	Heather took Latin II in eighth grade. She was very competitive with					

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	what she was reading	question the teacher's selection of literature. Finally in fifth grade, her teacher let her choose her own book and she impressed the teacher as well as her peer.	reading required. They finally allowed her to pick what she wanted to read.	the three other boys in her class. She strove to outperform the brightest one; however, she could never outscore him in class. She finally received a higher score on the National Latin Exam and this satisfied her need to compete in that arena.					
T/P/Independence	Heather began reading by 5 and a half. She memorized books before reading and pretended to read.	Heather drew a lot. She was encouraged to do puzzles and build Lego's. She watched the Nutcracker straight though at eighteen months old fascinated by the music and dance.	Heather is a doer and likes to accomplish things and keep busy.	Acquiring her driver's license. This gave Heather a sense of freedom and ownership. I felt more in control of my life. This was a step towards independence.					
T/P/Self-Esteem	Heather did not recognize her own gifts and talents even though her parents and teachers did.	Heathers classroom battles were rooted in part to her feelings of not belonging. Her teachers didn't appear to care about students or their	After Heather's tumor was radiated her academic and physical decline caused her to believe that she would not be successful academically	Heather battled with emotional depression. Her depression at ten and again at sixteen further depressed her cognitive functioning.	Although Heather has struggled with self-esteem, she has always maintained a view of herself as a gifted person.	Heather felt that in fifth grade and eighth grade she was at her strongest in terms of people recognizing that she was	My weaknesses culminated at sixteen, when things just suddenly fell apart. It was physical and	Throughout her stormy times she continued to feel there were things she would always be able to do. She still	

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		own learning.	again.			talented and that she was a good writer and very proficient.	emotional; even though her academics weren't particularly strong either.	loved characters in books and she always would have her Latin ability that would never go away.	
T/P/Values	Heather valued what she was reading and her ability to analyze it. She was very creative when orally presenting characters and their voices	Heather was very introverted in elementary school	Heather's deep desire for learning and reading created some dissonance when she realized her teacher's were no motivated to intellectual stimulation. They never encourage her in her advanced reading and never talked about anything they were reading in their own time.						
ENVIRONMEN TAL									
Environmental/Su rrounding (Home, school, community, etc.)	The gifted program at school was less than stellar; it was entirely self-directed with no challenges. The diversity in	Heather attended Montessori school from 2 and a half through 5 and a half.	Heather had an eighth grade English teacher who liked her but she continued her confrontational pattern. Heather was responding	Heather was able to stay more focused in smaller schools but they also housed many poor teachers and insane rules and procedures.	Heather moved back home in December after her withdrawal and began working in February at a				

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	abilities made it difficult to craft assignments with depth content , process, product, and acceleration		because she felt that teachers were doing battle with her over her lack of organizational skills. She continued to be penalized for process and not rewarded for content.		quilt store to give her work experience and keep her busy in her time away from school.				
Environmental/Persons (Parents, teachers, mentors, etc.)	Heather was identified as gifted at age 4. In her elementary years her parents engaged her in intensive educational programming, piano instruction, dancing, tennis to stimulate her mind and body but especially to promote coordination and balance.	Heather experienced a succession of mediocre teachers and limited success in her school district. She also had peer who were cruel and demeaning of her problems	Inhibitors for Heather were people who saw her as smart but not capable due to laziness. These were primarily teachers who held her back and caused her to doubt herself more.	Heather had an eighth grade math teacher that made math easier for her too succeed. The teacher broke math down line by line but also allowed the students to retest until the scored at least an eighty. He called this strategy "Ground Hog Day"	Classics professors very supportive of Heather throughout her difficult period. When she was out of school for a semester they allowed her to audit their classes to stay up with her translation.	The Dean of Student's Office made it difficult for Heather to get a reduced load, even though she was diagnosed with fibromyalgia and if she wasn't asleep she was in tremendous pain. The office was not very helpful during this time. Heather had not more emotional energy to give to the struggle.	Teachers often sway her behavior of not turning in work, not completing assignments, or sloppy disorganized behavior as being lazy and uncooperative rather than a learning problem.	Heather's mother's willingness to structure time and activities that provided greater focus for her efforts was important	Heather has had great teachers who have inspired her to do more and selected individual who touched her intellectually and emotionally.
Environmental/U	Heather	Middle school	Heather	Heather placed	Heather	Heather went	Heather's		

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<p>ndertakings (Activities, Courses, Programs, etc.)</p>	<p>attended Saturday and summer academic classes since she was four</p>	<p>included both challenge and adventures; Heather took 3 years of piano and switched to voice lessons when her music interests shifted. In 7th grade she began theater work and 8th grade performed at her private school. This continues to be a passion for her. The arts helped her as her academics through this year became more bland and stultifying.</p>	<p>participated in dual enrollment during her junior and senior year. She had an extremely effective chemistry teacher who inspired about the subject regardless of her deficits in math.</p>	<p>on the National Latin Exam each year. Three silver metals and one gold as well as a cum laude.</p>	<p>attended Governor's School Residential Program in Latin.</p>	<p>to work at a quilt store and skipped the beginning of her junior year.</p>	<p>mom taught her Latin at home while they were in Cambridge, England during her sixth grade year. She completed half a high school program in 3 months.</p>	
<p>Environmental/Events (Encounters, awards, accidents, etc.)</p>	<p>Heather was declined National Honor Society in eighth grade, not because she did not score in the honors range but because she did crossword puzzles in class.</p>	<p>Heather placed 4th in a regional spelling contest in 7th grade.</p>	<p>Heather developed religiously with a decision to become a Catholic as a junior in high school.</p>	<p>Heather went to public school; however her transition to public school for her junior and senior year was rock – lots of death, her own depression and a formal diagnosis of AD/HD and Ld. She began taking a lot of medications.</p>	<p>Heather's grandmother was dying and her physical life was deteriorating. It was just a dark period in my life.</p>	<p>Heather's physical decline impacted her in her academics. Some teachers understood what she was going through; however, her English teacher did not. She had</p>	<p>Heather's parent decided to have the tumor she was diagnosed with at sixteen taken care of her first year in college. The tumor was irradiated.</p>	<p>Northwestern Center for Talent Development English courses. Residential classes earned her high school credit and AP credit, a further incentive to keep going.</p>

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						<p>a presentation to give on an American Author. Heather was extremely ill and asked if she could to it another time. The English teacher told her she would lose 20 points if she did it later.</p>	<p>Heather had a negative reaction to the treatment. Instead of the 3 months it should take to recuperate, it took her one and a half year</p>		
<p>Chance</p>	<p>Though Heather was gifted, it was clear that there were inefficiencies in specific areas, especially math</p>	<p>Heather was born with a hemangioma that covered half of her face and head. It caused amblyopia in one eye and a malformed ear that had to be treated; ultimately with plastic surgery. Hearing was reduced in that ear. Facial deformity caused socialization problems.</p>	<p>Heather was diagnosed with depression at sixteen. Her chemistry teachers became a confident for her during this period. This caused difficulty for heather due to a cognitive decline at this time. She felt like she couldn't think in a logical pattern.</p>	<p>September 11 happened during Heather's first semester of her sophomore year. She took it very deeply and ended up failing all of her classes. She could not concentrate on anything due to the catastrophe.</p>	<p>Her compromised vision and hearing impacted her ability to visually and auditorially process information in classrooms.</p>	<p>AD/HD further impeded her academic ability</p> <p>by making her more inattentive and distractible than would be desirable in classroom setting. She was undiagnosed until sixteen.</p>			

Appendix J

Chart Targeting Codes to Research Questions

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Alyssa - 0010

Chart Targeting Codes to Research Questions/Themes

	INHIBITORS	FACILITATORS
INTRAPERSONAL	<p>LD during middle and high school made her feel stupider over time</p> <p>Things took longer to finish in middle school and high school: perfectionistic tendencies made this worse</p> <p>High GPA masked disability in school: Ability masked disability</p> <p>Attention compromised due to AD/HD</p> <p>Conflicted that others received services during formative education: she could have done better on SAT with accommodations</p> <p>Just wanted more time on tests</p> <p>Early on she was able to compensated for weaknesses but became unable to do this at selective institution of higher learning</p> <p>Father not supportive of testing for disabilities</p> <p>Over involvement in activities; unable to maintain balance</p> <p>Her need to excel and perfect her product works against her: high personal expectation exposes her weaknesses</p> <p>Once tested they found multiple disabilities: Dyslexia, undetermined learning disability, AD/HD, slow processing speed</p>	<p>High ability made elementary easy: I was the star that shined</p> <p>Honesty with herself about her strengths and weaknesses</p> <p>Finds personal passion and goes for it</p> <p>Works diligently and consistently</p> <p>Puts in extra time</p> <p>Thrives on small rewards</p> <p>Personal strengths have worked for her in getting to know people and planning events</p> <p>Willing to work extra hard for good grades</p>

<p>ENVIRONMENTAL</p>	<p>Transition to middle school caused things to fall apart Time management: assignments took triple the time: perfectionistic tendencies made this worse (will not sacrifice product even if it means turning it in late) Her brother's difficulty with LD early hid her LD School would not find her eligible for testing: middle and high school Father thought the whole LD testing process was bogus Peers joked about LD (good humored) Transfer to current selective institution of higher learning: more competitive, more rigorous, she started struggling Assistant Dean of Students of Disabilities not helpful; hard edged Changed majors for success but compromised her true desire for business and psychology major. LD population not large at current institution: 2% of population: College did not fund LD services well Lack of disabilities advising and need for closer monitoring College (administration and teachers) not aware of issues that impact students that are diagnosed with LD Lack of availability of consistent format to</p>	<p>Participation in Gifted and Talented Programs Parents paid after her senior year for testing Accepted to Clemson University: Great facilities for LD: Dean very positive Transferred to current selective institution of higher learning: school has great reputation Assistant Dean of Academics was helpful: met with her weekly and became counselor and mentor for strategies in time management and organization Changed majors to make it possible to succeed in current institution Friends help her stay motivated and on top Teachers in middle and high school : they noticed her strengths and weaknesses and encourage her to work towards her strengths Parents were very important, but most important her mother Advanced Placement classes in high school were helpful Governor's School for the Arts: Great experience and community Environments were helpful for her where her weaknesses did not stand out: ones that let her work at her own pace</p>
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	<p>take tests when extra time was needed: Options not clearly defined Awareness that in order to be successful in the business world after college a unique environment would have to be found because of her learning disabilities</p>	
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Don - 0002

Chart Targeting Codes to Research Questions/Themes

	INHIBITORS	FACILITATORS
INTRAPERSONAL	<p>Memory was an inhibitor in remembering early parts of his journey</p> <p>Didn't like his formative school experience</p> <p>Difficulty with handwriting</p> <p>Depressed across all parts of journey: felt like his parents would have been happier if he were not born</p> <p>Internalized conflict at home Internalized conflict at home: conflict with dad's job and mother traveling a lot with job</p> <p>Loneliness and abandonment</p> <p>Felt like no one really cared</p> <p>Breakdown near the end of senior year; over school and social problems; yelling at home at his father; school years definitely affected him</p> <p>Angry at mom and dad: father's inability to deal with his own anger was problematic for Don: Mom not being there made him feel like there was not one to go to</p> <p>Gets stressed out and frustrated quickly; has panic attacks</p> <p>Finding community at the selective institution was difficult, couldn't find a group of friends</p>	<p>Father was a driving force</p> <p>Learned to type to compensate poor handwriting</p> <p>Anger at his father caused him to work harder, although he never felt good enough</p> <p>Felt smarter for having gotten into the selective institution</p> <p>I ask good questions; this makes people think I am smart but really I just don't know</p> <p>Realized he was not able to compete in science in selective institution, so he changed his major</p> <p>Has a encounter in faith; gives his life to Jesus Christ</p> <p>Personal defining moment when someone emailed him about one of his articles. The person was in Australia. He realized his ideas were going across the globe</p> <p>Writing and sharing with others helped him to discover what he really loved and felt call to do; helped him grow as a person</p> <p>Good writer; intuitively knows how to write: writing boosted his confidence</p>

	<p>Don felt like everything he thought about himself was wrong when he faced failure at the selective institution and had to change majors LD; Dyslexia; Very slow reading speed inhibited his progress Difficulty adjusting to the level of rigor at selective institution Angry at college for their perceived elitism and focus on being special (if you can't hack it, get the hell out) Wanted affirmation from his father that he never received</p>	<p>Diligent worker Not very organized but has a strong work ethic (Does the best he can) Perseverance was critical, it caused him to work hard to not let his depression win over him Always had an overshadowing sense of destiny and purpose; had some inherent belief in God and that things would work out</p>
<p>ENVIRONMENTAL</p>	<p>School friends never invite him to their house nor do they call him at home Friendships were sparse and insufficient Ran for class office in high school and lost each year until his senior year Social pressure to have a date to dance due to being class president Father extremely introverted Finding community at the selective institution was difficult, couldn't find a group of friends First semester was hard; ended up on academic probation Roommate conflict occurred continually: Alone; doesn't do well by himself Female relationships created more angst Junior year his grandmother died; he had</p>	<p>People at school like him Ran for president his senior year and won Mother took them to church Visited campus of selective institution and liked it; wanted to come because of its reputation Liked physics in high school; physics was defining for him in college, it made him realize that he was in the wrong field for his strengths; changed to government and history Don became involved in a local church; involvement was crucial Pastor became a mentor for Don; huge inspiration for him Found a community in Bible study that had</p>

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	<p>looked up to her; Impacted by her death Disabilities Services at college were helpful second semester of freshman year but would not continue with plan the rest of school. (Registering early so father could help to craft schedule that was best for him) Most of his life he has been controlled by his weaknesses Stress was internalized which made things harder Built up a cycle of putting himself in situations that weren't really conducive based on his weaknesses Spent weekends alone; alone in the at home in the back room doing homework Wanted to go to selective institution of higher learning that he was accepted to; his father did not agree with this decision Huge difference between high school physics and college physics</p>	<p>been lacking in his life Don gave a eulogy at his grandmother's funeral. It revealed to himself and others that he had a gift for writing Began writing for a campus newspaper; wrote opinion articles Dabbled in philosophy and religion courses Degreed in government and history in May, 2006 Parents facilitators of personal development, especially his father Teachers especially professors in government department challenged him and caused him to think in ways he hadn't before Don had a few friends that were influential; mostly female friends Extra time on tests was critical for him, especially when taking math and science Disabilities program in high school not very effective Don is most comfortable in Christian environments Smaller discussion groups play to his strengths; large lecture play to his weaknesses but was good for him Appreciates his father's help now; resented it when he was in school</p>
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Daniel – 0008

Chart Targeting Codes to Research Questions/Themes

	INHIBITORS	FACILITATORS
INTRAPERSONAL	<p>Remembers AD/HD behavior throughout his formative schooling</p> <p>Daniel was a people pleaser; I worked hard to make them happy</p> <p>Impulsive in middle school; came off as annoying, more so to teachers than friends</p> <p>Standardized testing uncovered his difficulty with AD/HD due to the nature of times; Daniel remembers always taking longer on tests</p> <p>Daniel could only sustain limited attention in class. He was in and out of touch throughout class, hearing only parts of the lecture</p> <p>Daniel could be distracted by any objects in a classroom. He could have a running dialogue about a poster</p> <p>Tried once to not take notes and ended up almost all of the period except 5 minutes at the beginning, five minutes in the middle, and five minutes at the end.</p> <p>Got involved with too many extra activities along with difficulty subjects and large load sophomore year</p> <p>Daniel is acutely aware of how his AD/HD impacts all the details involved in learning</p>	<p>Daniel was a likeable kid; teachers could tell he wanted to do right even when annoying and over-excited; excited about what he knew; ability to engage teachers</p> <p>Realizes it could be a different story growing up: most experiences have been positive ones</p> <p>Daniel was a people pleaser; I worked hard to make them happy; his desire to please people worked well for him</p> <p>Developed effective coping strategies by 9th and 10th grade: took notes all the time, when not paying attention; writing things down gave him a guide for study and helped him stay focused</p> <p>Daniel is a very visual learner; he remembers power point slides when he reads his notes; Doesn't like when power point handouts are given; he must write his own notes</p> <p>Realized that he needed the accommodations in college when he was in Australia; it was a defining moment for him; he realized he had compromised his GPA by not testing</p> <p>Daniel is acutely aware of how his AD/HD</p>

	<p>Impulsivity was an obstacle; he had to self-manage; however, he saw a good side and a bad side to impulsivity (creativity and sensory intake)</p> <p>Weaknesses were emphasized his sophomore year when he was over-involved, not getting accommodations, and taking a large load academically</p> <p>Learning to read was a huge inhibitor for Sabrina in the beginning</p> <p>Impulsivity was an obstacle; he had to self-manage; however, he saw a good side and a bad side to impulsivity (creativity and sensory intake)</p>	<p>impacts all the details involved in learning</p> <p>Takes his medicine only when he knows he needs it; does not like the side effects of the medication; feels the stress on his body when he takes it, does not enjoy his environment as much; very in tune with himself emotionally and physically</p> <p>Daniel has a deep place in side of him where he gets a lot of motivation to do things; He can push through a million things and keep working at it until something happens</p> <p>Does better when there is a chance of failure; needs and thrives with a challenge</p> <p>Perspective on learning changed after a semester abroad; redefined the difference of being an expert and learning what was necessary for general requirement.</p> <p>A deeper understanding of his need for extra time was an epiphany for Daniel</p>
ENVIRONMENTAL	<p>Sat in blocks of four desks put together to make a pod. Could have been very distracting</p> <p>Standardized testing uncovered his difficulty with AD/HD due to the nature of times tests</p> <p>First time he had a specific time limit was the first time he realized he had a problem</p> <p>Parents were worried about his brother and read about AD/HD only to discover that</p>	<p>Teachers did a good job of guiding him in a positive way throughout school; felt like their focus was to help him help himself</p> <p>Teachers sometimes get frustrated with AD/HD kids and find no reason to re-engage; they can just blow the kids off.</p> <p>Sat in front most of his school life</p> <p>Daniel began medication his senior year and there was a huge difference in his attention and impulsivity</p>

	<p>Daniel was the one that fit the characteristics: Ability and willingness to please hid disability</p> <p>When he began his medication a teacher that he had had earlier said to him, “you’re not annoying anymore.” He told him he was easier to get along with. Doesn’t know if this was a positive experience or not.</p> <p>Professors his sophomore year would not give him extra time without verification of accommodations; before this his professors has given it to him when he asked</p> <p>College provided the largest obstacle in the administrative part of getting extra time on tests; having to retests for accommodations he was receiving before college was frustrating</p> <p>Dean of Student’s Office made him feel like AD/HD was a joke and an excuse to have more time</p> <p>Medication causes my experiences to be a shadow of what it should be</p>	<p>Class went faster when he took notes</p> <p>Extra time on tests was critical; Grades improved dramatically with extra time</p> <p>Daniel did not apply for accommodations his first year of college; he had a horrific first semester of his sophomore year: Daniel was afraid his need for extra time would be on his transcripts; their was perceived resistance from the Office of Disabilities; and he perceived that receiving accommodations was like cheating</p> <p>Went to study abroad his second semester of sophomore year</p> <p>When he returned from Australia he signed up for testing to get accommodations</p> <p>Advanced Placement classes were a challenge Daniel enjoyed</p> <p>Daniels parents were his chief facilitator of personal development; particularly his father; his parents understood his strengths and his weaknesses</p> <p>Daniel was tested by a regional talent search which targeted him in high school for higher and more challenging math.</p> <p>Study context; he needs to study alone with wide open tables and well lit spaces</p> <p>Daniel managed to keep the dialogue open and kept open relationships with teachers</p>
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Sabrina – 0005

Chart Targeting Codes to Research Questions/Themes

	INHIBITORS	FACILITATORS
INTRAPERSONAL	<p>Diagnosed with auditory processing disorder and dyslexia in first grade Found solace in reading; it isolated her from her peers but she was very interested in what she was reading Sabrina was so verbal that she made up stories in first grade. This caused her teachers to miss her inability to read. They never looked over her shoulder to see that she was not reading. Her mother had to tell them. Excellent math scores masked Sabrina’s disabilities and caused school officials to question her need for accommodations Sabrina’s freshman year in high school she has to take French without accommodations; this is counter-intuitive to her disabilities; English is like a foreign language to her, much less another foreign language Sabrina puts a great deal of pressure on herself to excel: when she doesn’t excel she has a miniature breakdown Spread between her verbal IQ and performance IQ was 40 or more points. Well over the qualification of discrepancy</p>	<p>Diagnosed with auditory processing disorder and dyslexia in first grade Found gifted in mathematics Challenged herself as evidenced early when she would fill an entire notebook with math problems without prompting Content to do her own thing Once she learned to read, she read all the time; read during down time all during middle school; found her solace in reading Used activities outside of school to satisfy social needs: ski racing and pony club Finding creative ways around requirement and negotiating accommodations was central to high school Sets a goal to obtain above a 3.0. As of this semester she has a 3.05 Has set a goal to go to graduate school for MBA or for Veterinary School. She knows the difficulties Veterinary School poses but this is what she would like Sabrina has tremendous perseverance; when she doesn’t achieve her drive gets her through Obstacles fuel the challenge, the ability supports the disability, while the</p>

	<p>for learning disabilities Experiences angst know she is able but cannot get the result she wants due to disabilities Dyslexia makes some classes very difficult; botany and phylogeny require intense word and letter discrimination; One semester she had to apply for an under load because of difficulty Sabrina has difficulty adjusting to the constant establishing of appropriate accommodations, different teaching styles, and the work of becoming her own advocate</p>	<p>perseverance keeps it driving forward Crystallizing experience was Sabrina learning to transition to being more independent and becoming her own advocate Knowing there is more than one way around things Takes pride in understanding material even when the grade she gets is lower than she would like Liked math classes when boys usually prevailed: proud that the little blonde girl beat them Loves quantitative and mathematical processes that involve reasoning and putting the whole picture together; synthesis Excelled when she was with kids that were more similar to her intelligence and who also like reading</p>
<p>ENVIRONMENTAL</p>	<p>Diagnosed with auditory processing disorder and dyslexia in first grade Went to Montessori school in first grade but it didn't work for her; they missed her disability and her inability to read; Problem with reading missed by teachers due to her ability to make up stories Mother did not want her to use spellchecker in third grade; battled the teacher but the teacher won; Sabrina still uses the spellchecker today</p>	<p>Diagnosed with auditory processing disorder and dyslexia in first grade; special education tutor Resources for giftedness in mathematics; math tutor to excel in strengths Left Montessori school in first grade and went to public school where she was placed in second grade due to placement tests Spelling became difficult if not impossible in third grade; able to compensate before</p>

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	<p>Tested for G/T in third but did not make it; Fourth made G/T pull out not G/T center; Fifth made G/T center</p> <p>G/T program in middle school was inside an inner city school demonstrating typical issues in its population; teen pregnancies, broken windows, and vandalism: Program provided an island in the middle of the chaos</p> <p>Math/Science Magnet would not allow Sabrina's accommodations; they did not accept that she needed a 504 since her grades were so high</p> <p>Sabrina's parents, particularly her mom, had to go to battle to win back her accommodations. They had to hire a professional advocate to explain Sabrina's disabilities to the school</p> <p>Sabrina's freshman year in high school she has to take French without accommodations; this is counter-intuitive to her disabilities; English is like a foreign language to her, much less another foreign language; Sabrina felt forced to fail to prove she needed accommodations</p> <p>BC Calculus her junior year provided yet another environmental challenge. She normally sits in the front to aid her visually and auditorially. This was not in her 504, so that year the teacher rotated where you sit. She ended up in the back under a fan</p>	<p>this but her disability caused her to not be able to discriminate similar words with similar sounds</p> <p>Mom worked with her on spelling with repetition and visual and auditory stimulation</p> <p>Spellchecker necessary for Sabrina</p> <p>Entered G/T pullout in fourth grade; G/T center in fifth through middle school ; math and science magnet for high school</p> <p>Used activities outside of school to satisfy social needs: ski racing and pony club</p> <p>Continued advancement in math throughout high school</p> <p>G/T program in middle school was inside an inner city school demonstrating typical issues in its population; teen pregnancies, broken windows, and vandalism: Program provided an island in the middle of the chaos</p> <p>Parents won the battle in high school over accommodations. The next year she passed French</p> <p>Preferred seating was added to Sabrina's accommodations the next quarter. She took immediate action on the problem. Fulfilled her language requirements for college by taking French in high school and at a local community college</p> <p>Sabrina took classes every summer to allow for a better schedule during college;</p>
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	<p>third quarter. Her grades plummeted. She talked to the teacher but she refused to move her</p> <p>Sabrina very sensitive to her environment; Environment can determine whether she passes or fails</p> <p>Her selective institution of higher learning made it difficult for her to get accommodations</p> <p>Dean of Disabilities was strict and held strictly to the rules; She required Sabrina to retest to certify her disability; College would not accept 504 Assistance Plan from high school</p> <p>Sabrina had to get permission from the college to take some of her harder courses at a college nearer to home. The college required that courses in her major be taken there. She applied for an exception so she could take courses while she was home during the summer</p> <p>Greatest hindrance was having to prove she was learning disabled</p> <p>Sabrina doesn't achieve without her accommodations in place</p> <p>Weakest in classes that required a lot of letter discrimination.</p> <p>Telling time was difficult; it all looked the same to her</p> <p>G/T program and its provision was key for her: enriching environment even though</p>	<p>took physics at a local college</p> <p>GPA fluctuated throughout freshman and sophomore year due to key courses that targeted her weaknesses: Accounting, Applied Statistics</p> <p>One of her professors discovered that a word list helped Sabrina to be successful and aided her with her discrimination problem. This was an epiphany for Sabrina. This was added to her accommodations</p> <p>College professors have worked with her to brainstorm ideas to help her learn; she meets with her professor every week and works hard</p> <p>Learning environment is more important than the mode of study. It is the difference between passing and failing.</p> <p>Parents greatest facilitator of personal development, hands down (mom)</p> <p>In college mom was told to step back and Sabrina had to sep forward</p> <p>Extended time was a key accommodation for Sabrina</p> <p>Use of the computer important: Disability impacted writing, spelling, and hand writing</p> <p>Sabrina didn't like the environment of the disabilities lab. It was too quiet and had a buzzing noise. Coffee shop was perfect. Enough noise to not here discrete noises or</p>
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	<p>there were social hurdles Sabrina very sensitive to her environment; Environment can determine whether she passes or fails Changes to math minor due to math difficulties with particular math classes; College recommends a light load for her freshman year. She takes 12 – 13 credits. She was bored and needed more challenge. Sabrina needs stimulation and challenge to succeed despite her disabilities</p>	<p>conversations It was extremely helpful for her to take her tests in the same room all the time. It was almost as effective as her extended time. Habit She cannot study with other people; her word list sometimes makes her uncomfortable. She thinks people will think she is cheating Classroom size is also important for her success; she liked classes that mandated participation. It made it easier for her to participate Excelled when she was with kids that were more similar to her intelligence and who also like reading Magnet school prepared her for college Sabrina’s horse being in Williamsburg was important; her parents moved it for her; riding is an outlet for stress Sabrina’s mother let me know that she has been accepted to Veterinary School at Virginia Tech. They are already preparing email and letters to the disabilities office to set up the right environment for Sabrina’s success. Veterinary school is very competitive Sabrina is a good test taker which was a product of interventions when she was younger</p>
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Heather – 0012

Chart Targeting Codes to Research Questions/Themes

	INHIBITORS	FACILITATORS
INTRAPERSONAL	<p>Though gifted , it was clear that there were deficiency in specific areas, especially math</p> <p>Hated math, due to the struggle, and did not tune in to concepts at all</p> <p>Very introverted in elementary school</p> <p>Heather did not recognize her own giftedness early even though her parents and teachers did</p> <p>Deep love of literature caused her to challenge teachers regarding the low level of reading in her classes. Confronted her teachers</p> <p>Heather felt she was confrontational with teachers a lot</p> <p>Heather was diagnosed with depression</p> <p>Depression and a later tumor caused difficulty for Heather in her intellectual studies because he couldn't think in a linear fashion</p> <p>Heather's disability caused a weakness on following directions; the procedural side of things</p> <p>She was not aware until sixteen that she was AD/HD</p> <p>Once tested there was a strong discrepancy between her verbal and performance score.</p>	<p>Heather like to think deeply about what she read; love analysis</p> <p>Very creative with presentation and imitation of characters</p> <p>Heather looks back over her life now in the light of what she found out about her self at sixteen and she has better understanding of the times. It has made her a better teacher, as she teacher Latin in a nearby county. She strives to do things differently and has compassion for those students who are much like she was</p> <p>Heather feels her greatest strength is her personal history. She has been through much and she has the sense that she can survive anything at this point</p> <p>Her perseverance has served throughout the difficulties she has weathered throughout her life</p> <p>Heather believes that she has been her greatest inhibitor. She had a hard time accepting everything that was happening to her, once I realized that I had to overcome things it was a turnaround point for me.</p> <p>When things were happening to Heather at sixteen that created a difficult scenario for her both personally and academically,</p>

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	<p>Heather felt dissonance at this time Her recuperation from the radiation was estimated to take three months. Instead, it took her a year and a half to recover from the weakness and resulting depression brought about by the treatment. She slept 15 hours a day. Heather felt like she would not be academically successful again Heather tried to maintain her English major; however, her inability to concentrate also impacted her ability to write or even construct a sentence. Her mother wanted her to focus on Latin Her chronic pain returned when she returned to school and she got numbness in her left shoulder. She went through a battery of painful tests. She pressed through regardless of the pain Heather believes that she has been her greatest inhibitor. She had a hard time accepting everything that was happening to her; once I realized that I had to overcome things it was a turnaround point for me.</p>	<p>Latin rose to a different level and place in her life. I realized I loved translating Heather obtained a sense of freedom and ownership when she got her driver's license at 21. Teaching has been a turning point for Heather. She finds it exhilarating. She feels like she is the master of her own destiny when she is in the classroom. Voracious and astute reader</p>
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Appendix K

Cross Case Thematic Analysis

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Similarities	Across all cases	Differences (Unique to one case)
Facilitator	How many Cases?	Facilitator
<ul style="list-style-type: none"> The role of Persistence 	5	<ul style="list-style-type: none"> Mentioned a Model for a Career Path (Don)
<ul style="list-style-type: none"> The Role of Parents 	5	<ul style="list-style-type: none"> Recreated Self (found self and community and calling) (Don)
<ul style="list-style-type: none"> Accommodations (e.g. extra time, preferential seating) 	5	<ul style="list-style-type: none"> Studied Abroad for a Semester (Daniel)
<ul style="list-style-type: none"> Teacher Support and Positive Regard 	5	<ul style="list-style-type: none"> People Pleasing (coping strategy to gain acceptance) (Daniel)
<ul style="list-style-type: none"> Strong Volition 	5	
<ul style="list-style-type: none"> Change of major and/or career path 	4	
		Inhibitor
Inhibitor		
	5	
<ul style="list-style-type: none"> Disabilities Office Gate Keeping 		<ul style="list-style-type: none"> People Pleasing (coping strategy to gain acceptance) (Daniel)
<ul style="list-style-type: none"> Lack of Identification of Disabilities and Early Identification of Giftedness 	5	<ul style="list-style-type: none"> Oppositional Defiant (as a coping behavior) (Heather)
<ul style="list-style-type: none"> Lack of Accommodations at Critical Junctures 	5	<ul style="list-style-type: none"> Severe Dyslexia (Sabrina)
<ul style="list-style-type: none"> Feelings of Differentness, Alienation, Despair 	5	<ul style="list-style-type: none"> Multiply Disabled in a Cognitive and Physical Direction (Heather)
<ul style="list-style-type: none"> Time and Resource Management 	5	<ul style="list-style-type: none"> Lost Sense of Giftedness (Alyssa)

Appendix L

Parent Responses to Interview Questions

Parental Input – Academic Journey – Alyssa -0010

Elementary

Alyssa enjoyed both having books read to her and completed the required reading assignments in class and at home. Her passion both at school and at home was her love to draw. She also liked writing in a journal and wrote very creative stories for school. Her teachers always commented about her artistic ability and creative writing. She was in the GVT pullout program, which was once a week at her elementary school for some of her elementary years. Alyssa was also in a Japanese Partial Immersion Program for 1st – 5th grades. Math and science were taught in Japanese for half of the day. We pulled her out and enrolled her in a regular 6th grade class, because she was not receiving strong skills in these areas. She was privately tutored in Japanese before 7th grade so she could continue taking Japanese only as a language elective.

In second through third grade I was concerned that Alyssa might have a learning disability. She was always a very conscientious student and always took pride in her work. However, she would usually take too much time on completing her assignments both at school and at home (especially reports). I felt she should be reading more independently (self selecting books) and reading on a higher level. I spoke with her teachers and they said: Alyssa was progressing very well. She was a perfectionist in her work. This caused her difficulty in managing her time on her assignments. She even took more time on writing tasks because she was concerned with her penmanship.

During Alyssa's elementary years she took piano lessons and enjoyed playing the piano. She was also exposed to many cultural programs and events: Children's Music Programs, ballet, participated in private art classes, and we took field trips to many of the

Art Museums in the Washington area. Alyssa played soccer as a sport and was on our community swim team during the summers. During third through eighth grade her week was busy with Judaic\Hebrew lessons after school, (two hour lessons, 3 times a week). She also had soccer practice and games over the weekend.

Middle School

The concerns I shared with Alyssa's teachers regarding any learning difficulties during all her academic years were never acknowledged. She did very well in Elementary School and also had an A average in Middle School and was taking all GT classes. Alyssa had excellent teachers in both elementary and Middle School; however there was never any mention of any learning disabilities. In our county as in many other places, if a child is successful and her performance is high and reflected by successful grades, there is no reason to test them. As seen in your questioning with Alyssa she was able to compensate for some of her learning disabilities while others were being masked. I would like to also add here that Alyssa's journey through her elementary and middle school years appeared much easier than her brother. I now feel that perhaps we put more attention to his learning difficulties since they appeared greater at the time. He was diagnosed as early as 2 and a half with language development delay and was in private speech and participated in the "County Childfind Program," and went to private preschool. He had tubes put into his ears. He had both auditory and visual discrimination and processing disabilities. During elementary school her brother was in a pullout program for speech and LD which made him upset. The pullout program made him self conscious and affected his self concept. Alyssa was always wonderful with him and during his early years she would be his interpreter.

Internal Resources/Strengths

Alyssa is a very determined young woman. She is very creative and has many ideas. She has high expectations for herself. She enjoys being with people and being involved and this made her feel successful socially at college. The interview with you reveals why she put so much time into planning causes she felt were important to her. Alyssa is also realistic in expressing how she felt about her art classes and the difficulty with other required courses.

Alyssa created strategies to help her overcome her disabilities. Alyssa's artistic and visual ability was used as a positive strategy to learn new material. She would often draw pictures to help her learn new information and study for test.

Facilitators/Inhibitors of Personal Strength

I agree with Alyssa that the majority of her teachers have been inspiring to her success. I especially give recognition to her Academic Advisor and Mentor. I remember speaking with the Assistant Dean of Students when Alyssa was having difficulty and she was so understanding and encouraging to Alyssa. She took a great deal of time to meet regularly and guide Alyssa towards being successful. She helped Alyssa with: her organization and time management issues and encouraged Alyssa to approach and speak with those professors whose classes she was having difficulty. Many of Alyssa's classmates would express the significant role the assistant dean had in assisting them to find success in themselves and in their coursework. It would be so wonderful if the other deans and counselors and especially professors would be knowledgeable and understanding towards students with learning difficulties.

I reviewed Alyssa's testing after High School which was done by George Mason University Psychological Clinic. The report date was August 4, 2002 and Alyssa's Chronological Age was 17:10. I hope the following information will be helpful.

Alyssa is a friendly, straightforward, and hard working young woman who has been very successful academically and adept artistically. Achievement tests show that she has good academic skills and is particularly proficient in mathematics. The findings from this assessment suggest that she is having difficulty in areas of memory, attention, and processing speed. Additionally, she has problems with comprehension as well as with her ability to express her knowledge. In light of these challenges, her consistent success in school (i.e., a strong grade-point-average that includes work from several advanced placement courses) speaks to her will power and determination. This level of determination, taken in conjunction with the recommended interventions, should help Alyssa meet the academic challenges she will be faced with in college. The results of this comprehensive assessment indicate that Alyssa meets the diagnostic criteria for 315.00 Reading Disorder and 315.9 Learning Disorder Not Otherwise Specified (DSM-IV)."

The above information and list of recommended interventions was sent to Alyssa's College prior to entrance.

Educational Programs and Provisions

After Alyssa's sophomore year of High School, she was enrolled in the Corcoran Gallery Portfolio Summer Workshop. This course greatly enhanced her knowledge, artwork, and self confidence with many different methods of art. Alyssa was selected for

the Governors' School in the Arts after her junior year. This was an excellent experience and turning point both academically and in making many new friends who she still sees. Alyssa had many opportunities in High School because she chose to transfer to the new high school for her sophomore and senior years. She was active in Student Government and was Treasurer for both years. Most of her friends stayed at Oakton which was considered a highly recognized high school. Alyssa was also selected to be a speaker at her High School Graduation Ceremony.

Crystallizing Experiences

It's very unfortunate that Alyssa was frustrated with the Dean of Student's Office because of the Assistant Dean over Disabilities Office at her college. I believe Alyssa would have been more successful, if she had received the needed accommodations and counseling. If the college's Disabilities Office made students feel comfortable and helpful in receiving accommodations, I believe Alyssa would have stayed with business as her major. I strongly feel that a highly recognized state university like this one should: improve their Learning Disabilities Office by employing experienced and knowledgeable staff, meet the needs of those students requesting help, and have staff development for all professors emphasizing an awareness of College Students with Learning Disabilities so the teachers can use positive strategies of teaching to make learning a successful experience for all their students.

Parental Input-Academic Journey – Don 0002Elementary

When asked to respond to the same questions that Don was asked, his father began to tell Don's story from his perspective. Don was tested at the end of this Kindergarten year to determine his level of preparedness for first grade. He scored in the 10th percentile. The school asked his father to have him repeat Kindergarten, which he agreed to. At the end of Don's second year in Kindergarten, his scores had not changed. "The school concluded that Don had serious learning disabilities."

It is at this juncture that Don's father states, "Don and I have somewhat different recollections over what happened. Don had an exceptionally difficult time learning to read. I began to spend a great deal of time working with Don to learn how to read. For obvious reasons, Don does not have very positive views about this period." Don's father recalls that Don gradually learned to read; however, "Don continued to have serious stress problems related to the time it would take him to complete assignments."

Middle School

Don had a very difficult time adjusting to middle school. Don was small for his age and continued to exhibit behaviors that demonstrated that his stress level was continuing to increase; however, "Don did well academically with the help of his teachers and continued to have support at home." Don's father alludes again to the view Don had towards him during this period. "Like his elementary experience, Don does not have a particularly positive view towards my role in his academic progress. I carefully

monitored his assignments to make sure he completed them on time. This created a certain level of tension.”

High School

Don’s father states that high school was a time that Don “came to view his self-worth.” His self-worth became very tied up in his academic success. This was good but created problems that Don’s father was concerned about. “To maintain the grades he did required him to spend a tremendous amount of time studying.” Don’s father states that he didn’t remember putting pressure on Don to get good grades; however, due to Don’s enormous amount of time spent in preparation, he had very little social life during this period. “By his senior year, I grew increasingly concerned that Don placed much too heavy emphasis on academic success as a measure of his worth.” With this in mind Don’s father “urged him to go to a less competitive college.” Don was admitted to all the colleges he applied to with the exception of the University of Virginia. “This was particularly hard on him.” Don’s father did not want Don to attend the selective institution of higher learning that he chose. “Against my advice, Don decided to attend, which I thought was a serious mistake.” Don’s father felt like the academic environment of the school would “simply be too difficult for Don.”

Obstacles Faced

The academic difficulty of the school did become a problem for Don. “Don significantly underestimated the academic difficulty of the school; particularly with respect to science and math.” Don had a rough start his first semester; his grades were low. “I convinced the school to permit Don to register early and helped him select courses which he might be able to handle and reduce his stress level.” This worked well

for Don but the school did not cooperate with this intervention. “The school refused to make similar accommodations for subsequent semesters.”

Internal Resources/Strengths

During middle school Don learned to verbalize in order to master material. Don would spend a great deal of time talking to himself, getting himself through the material.”

Facilitators of Personal Development

“In all honesty, I believe Don had very mixed emotions regarding my participation in his academic development. I don’t believe I ever told Don that I expected him to get certain grades. However, after carefully researching educational issues related to students with learning disabilities, I did carefully monitor Don’s completion of assignments.” This is where Don’s father believes that issues of conflict emerged between himself and Don.

Don also had motor skills difficulties. This deficiency did not allow Don to participate in sports; however, Don’s father got him involved in martial arts in order to augment his motor skills deficiencies. Once Don went to high school, his father was concerned he was studying too much and not spending any time on other non-curricular activities. “Yet, Don apparently felt he had something to prove to himself and others by excelling academically.” Don’s father felt that some of this pressure could have been self-induced. “The fact that I and his mother have a number of advanced degrees probably contributed to the pressure that Don placed on himself.” Don’s father could not remember a time that he ever told Don that he expected him to get certain grades.

When Don decided to go to the college he chose, he and his father had sharply different views. “I felt this college would be far too difficult and would place much too

much stress on him. Equally important, I did not believe that Don was strong enough in math and science to pursue a science major.” Don had an extremely difficult first semester. This opened up Don’s eyes somewhat to the benefits he had received by his father’s attention to his academic studies; however, he now struggles with a lack of social skills due to his concentration on academics. “I believe Don recognizes that I helped him to develop academic skills, but he believes I pushed him much too hard to succeed which made it difficult for him to have a social life.”

Educational Programs and Provisions

Don’s father believes that the institution that Don attended “was not particularly cooperative in helping Don succeed. Although they permitted Don to register early his second semester, they would not permit the same accommodations subsequently.” He states that this is his perspective but he believes this made school even more difficult for Don. “This made it difficult for Don to put together schedules which would reduce the level of stress placed on him by balancing the types of courses he took.” The institution took the stand that early registration for courses was not a necessary accommodation for Don.

Parental Input – Academic Journey – Daniel - 0008Elementary

Daniel was in Sydney, Australia until grade 2. Then he repeated half a year of grade 2 in Kobe, Japan. This was a very painful year due to boredom with a relatively inexperienced teacher. Daniel was very bubbly, could not sit down, and one teacher was sure if he could just pull a chair up beside her desk all day, he would be in heaven.

Work; what work? He was friends with everyone, but once in a while got caught out flat footed, with no one available to play with. Plan ahead? What a novel thought! Daniel moved to Hong Kong for grade 5.

Middle School

Daniel love middle school. “He was into everything.” The family had just moved to Cincinnati from Hong Kong. Daniel went to a Christian school until he graduated. “He did every conceivable activity; swimming, basketball, NJHS, math clubs, drama, and school radio.” Daniel excelled in mathematics and was always in the advanced classes.

High School

In high school Daniel traveled with a drama group. The group was called Mishpacha (Mish). “It was a Christian drama group that performed a play entitled, “*Dead Serious about Life.*” Daniel loved his activity with the drama group; however,” it was all consuming for him and for his family.” Once Daniel was entering the eleventh grade his parents required him to decide whether he would be involved in Mish, take 4 AP’s or all the activities and clubs. “He had to do two of three. Mish lost. It was good. He got

into a lot of drama, AP's, and really engaged with his school friends. He was in many academic clubs and ended with 7 AP classes overall."

Daniel enjoyed reading; classics, fiction, etc. He was diagnosed late in his junior year with ADHD. "It was unfortunate that Daniel was not diagnosed with ADHD before the week he had 4 AP exams and a bad cold. He was disappointed with his performance."

College

Daniel decided to go straight in to Physics 2, even though it was strongly recommended that he do Physics 1 first. He also did Calculus 2, even though he had not had Calculus since the eleventh grade. "He seemed to strive for so many difficult courses. He was setting himself up for a really heavy work load. First part of second year was not a good term, with less than stellar results. Following that, he took a semester at University of NSW in Sydney, Australia." His parents believe that this experience was interesting, but not highly beneficial. When Daniel returned to the states he realized he had compromised his GPA by one course in particular. This put a lot of pressure on him to perform well in his third and fourth year.

Obstacles Faced

"ADHD was a significant obstacle resulting in underperformance, especially on timed tests. This was due to inattentiveness and at times hyper-focusing on a specific problem, rather than continuing on." Daniel was also very social and that side of him compelled him to spend a great deal of time in extra activities which pulled him out of classes. This was especially true in high school. "He became the ambassador of the school. I there were examiners in for some accreditation, Daniel was the student to welcome them and chat. He missed a lot of classes and was given more extensions than I had ever realized."

Internal Resources/ Strengths

Daniel loves life. He has great drive and is extremely optimistic. His emotional IQ is very high. He seems to be able to read people well and meet their needs.” Daniel is a people pleaser. This has served in well in some situations but has worked against him in others. He has a strong faith in Jesus Christ and finds his faith strong and real asset to him.

Daniel learned to lose well young in life. “As an elementary child, he ran for office in his class and lost. The next year he mentioned it. I encourage him to run as I would be more proud if he ran and lost than if he did not run at all. Well, he ran and lost. But, ultimately, he started to win and held many positions as President of organizations.

Daniel is a young man of strong vision. “He dreams up things he wants to do and actually does them. “He did the Sydney semester with little help or encouragement from anyone. His resume is completely full of jobs he has held since grade 8.” Daniel has completed all that he has done based on his own initiation and secured by his own drive.

Facilitators of Personal Development

Daniel’s mother believes that Daniel would say that his dad had a very important role in his life. “Daniel Sr. has made an effort to spend a lot of time with Daniel over the years. He has been a good role model and Daniel looks up to him.” In addition to his father, Daniel has had a number of teachers and men who have had a huge impact in his life in very significant ways.

Educational Programs and Provisions

Daniel did not receive any programs and provisions for his ADHD until his senior year in high school. He is so self-motivated that he did not bring his need for accommodations

to the table when he first entered college. “He finally saw the error in that thinking. He hindered himself and his own success to some degree by not declaring his need for allowances for testing.

Crystallizing Experiences

“Mish was a defining time for Daniel. He had been moved from country to country. There were many things that he had started from piano, to various sports. But, each country has slightly different activities available. So, when we arrived in Cincinnati in grade 6, Daniel did not have a distinctive. In fact, he was less confident than his younger brother.” Daniels mother believes that Mish helped Daniel develop a real sense of self. “He was very good at his parts and he developed a strong sense of community with other students and a mentor. After this experience, he never looked back.”

Environments and Social Contexts

Daniel appears to thrive on variety. He also does well in environments that provide a lot of encouragement. His involvement in numerous activities tended to energize him “to a point then it overwhelms him.” Daniel has a hard time maintain a good balance between the two points. “Balance is a lot art at times.” He is extremely social adept. “Even as a young child he was able to speak comfortably with adults, and seems to always remember details that show his honest interest in others.”

Impact of Strengths and Weaknesses

In elementary school Daniel’s lack of focus was an issue. “Daniel could get the homework finished; it simply never got back in the book bag and to school.” Moving to middle school, Daniel demonstrated that his math skills were strong, but his reading skills were somewhat deficit; “However, his organizational skills started to appear.” In high

school, “critical thinking, math and physics were his strengths.” He took on too many activities at this time but it did not impede his performance. “When he got to college, the many AP’s he had completed had prepared him well for the workload at college.”

Parental Input – Academic Journey - SabrinaElementary

At the age of 2 and a half Sabrina was doing fifty-five piece puzzles. She would turn the pieces upside down and assemble the puzzles backwards without the benefit of a picture. She happily entertained herself in a variety of ways as an only child. Once in Montessori school, she became extremely shy around adults, but methodically went around the classroom and performed all the mathematical stations with extreme ease. She would move about and challenge herself without any prompting. At home, she was always very social and outgoing, so we couldn't figure out why she was so quiet at school. She got over it by the end of her first year.

By the time she was moved into the 1st grade class we noticed that all the average kids were reading well, but Sabrina was not reading at all. Her spelling tests (bog, dog, log, cog, fog, hog, jog) were marked with big red "x" beside every word, because every word was wrong. She would crumple them up in frustration and then give them to me. This was our first clue. We got her tested and learned of her disability. The Montessori school REFUSED to accept the fact that Sabrina had any learning issues. Not only were they unable to pick up on the fact that she could not blend two letters, they complained that she did not participate appropriately. I explained to them that Sabrina had been read to every day of her life since the day she was born, and she knew how to make up a story that followed pictures in a book. Then, when she did start reading, they complained that she spent too much time in the little library room reading by herself. I explained to them that now that she was able to read, she is hungry to explore the world that was forbidden

for so long. It was clear to me that she was smart – she had mastered ALL the math activities in the classroom – all the way to the 3rd grade level. When something was demonstrated, she would watch, she’d “get it” and then she’d move on. She was able to conceptualize the problem and did not need to get her hands on it. She was already thinking at a higher level than they could accept. This went against the grain of the Montessori program – so I removed her and placed her in the public school. Also, the public school system taught “whole reading” rather than phonetics. Once we got her to a specialist and she began to read, the teachers complained that she spent all her time in the library. Well, DUH! The kid was thirsty for knowledge and she finally found the key!

We moved her out of Montessori and into the County public schools during spring break of 1st grade. By then (age 6) she had been diagnosed with severe dyslexia and was not getting the attention she needed at the Montessori school. At this time it was recommended by the Psychologist that we also attend to Sabrina’s strengths. In many cases when people only focus on the weaknesses, all the child experiences is failure. It was recommended that we get her a math tutor so that she could feel accomplished and successful. That’s what we did. She had a private tutor for math one day a week, the reading specialist three days a week, plus speech one or two days each week. This continued for a couple years.

The county psychologist reviewed her case and recommended that we place her in either first or second grade depending on where she fit better socially. He said that she would excel academically anywhere we put her. It was clear that she was socially developed beyond her years having been an only child with many attentive adults surrounding her on a daily basis. Since Sabrina’s IQ score was so high, the psychologist

suggested that I put her in whichever grade she fit better socially because she will excel academically anywhere we put her. Sabrina is an only child and was surrounded by two parents, a live in nanny, and 3 doting grandparents, she was quite mature socially. Plus, she hung out with the older kids at Montessori because they were more advanced academically and generally more mature. I was the one that decided that if she had problems academically, I'd keep her back. She excelled. The more structured environment suited her better. I remained in the classroom on a weekly basis every year through middle school to observe for myself if she was in the appropriate environment. Environment was the key. Interestingly, by the end of third grade the principal called me in. She told me that in no uncertain terms that Sabrina was too young to be in 3rd grade and that she couldn't remain there. I said, "Well, she is excelling. So what's the problem?" They had no choice but to acquiesce. She did extremely well finishing the second grade in the structure of the public school classroom and easily moved on to third grade. She had an IEP that addressed speech and auditory processing problems.

In 3rd grade she had difficulties with spelling because the students were allowed to pick their own spelling words and she routinely over challenged herself (a common trait of dyslexics). I spoke with the teacher and insisted that she should be learning how to spell at this point, not just spitting words out after learning them on her own. After many discussions with the teacher, I lost the battle. The teacher insisted that she use a spell checker. I completely disagreed on many levels, but went ahead and gave Sabrina the tool so she could learn to use it.

Although Sabrina was clearly gifted and talented, I didn't feel that moving her into the GT environment was a good idea at that point. We had Sabrina tested each year

for the GT program to see where she stood. I was not about to move her, even if accepted, until I felt it was the right environment for her. The third grade teacher was surprised that I didn't appeal the denial at the end of 3rd grade. But the GT kids were bright, high achieving kids – and in 3rd grade she was still in a good learning environment in the base classroom. Then, in 4th grade, it became abundantly clear that this was no longer the right environment. The other kids began picking on her and bullying her. It was obvious that she was “different”... smarter than they were. She was beginning to hang out with the GT kids on the playground during recess. So, after having her tested at the end of the year, she was again denied a spot in the GT class. So, I fought it. I made a big stink and appealed it two levels and finally won. At this point, moving over to GT, she would have missed a year of math. The GT class was one year ahead. We acquired the 5th grade book and she mastered it over the summer with her math tutor. Entering 5th grade GT involved doing 6th grade math. No problem. She never looked back.

She went into the standard fourth grade classroom with pull-out GT. By the end of fourth grade, it was clear that she needed to be with the other gifted kids. The normal kids were picking on her because she was different. She began hanging out with the GT kids during recess and at lunch. Again, the teacher did not control the environment properly. I applied to have her placed in GT in fifth grade, but was unsuccessful. I appealed twice and finally got her in.

Sabrina was quite verbal and even “controlling” in social situations outside of school.

When she was comfortable, she would be in the midst of the activity. When her kindergarten teacher called me in for the first progress report, she told me that Sabrina had not said two words all semester and I was aghast! I envisioned her “taking over the

class” and running the show! Over time, she became more verbal – though she was deep in thought most of the time. She mastered all of the hands on activities in a very methodical way – around the room from left to right, mastering one problem at a time with relative ease. Sabrina has always been one to welcome a challenge and work through it in her own time and in her own way. Similarly, at amusement parks – such as Kings Dominion – she would be studying the mechanics of a ride rather than bouncing and giggling like the other kids. In the kiddies bumper cars she would crawl down to the floorboard to investigate the pedals and then would look up the rod to the electrical connection. While on the small circular rides, she would hang over the side to investigate the tracks and the mechanics of how everything worked. If something was not challenging enough, she’d make it more difficult for herself. . Obviously, this was not a stupid child.

Middle School

The school had come under new leadership the year we arrived. The sixth grade GT kids were in the trailers out back and were isolated from the general population. The new principal cleaned the place up. He was amazing. The teachers protected the kids. At that point, her math and science teacher told me that Sabrina was a “TJ” kid. She told me that Sabrina WOULD get in, and that she would EXCEL there. I was amazed. The problem with the bulk of the kids in that GT class was that they were not motivated. They were all quite smart, but were not motivated. Sabrina has always been very self motivated. Sabrina did have an IEP briefly – for speech only. But the IEP pull-out teacher enjoyed her so much; she kept recommending that she remain with her. Sabrina has always interacted and bonded well with adults. We always got whatever accommodations we

requested – we figured it out as we went. Then, I decided that we’d better formalize her accommodations because otherwise, I’d be following her around high school doing the same things I had done in elementary and middle school. That would not be cool!

Sabrina had learned by (at the end of middle school) to be her own advocate – and was QUITE good at it! I was very proud and felt that she would be able to handle her own issues from here on out. I was wrong.

The teachers recognized her talents and weaknesses and nurtured her throughout. She seemed to be on her way. After fighting tooth and nail to get her a 504 in place – and it was working well for two years in middle school – once she arrived at TJ, they literally pulled the rug out from under her. They did not accept the 504 that had been written the year prior. They complained that Sabrina was an A student, and that she did not need any accommodations. I fought and fought and fought. I hired a professional advocate. TJ said that they would not grant her accommodations unless they could see for themselves that she needed them. So, they “forced” her to fail. I will never forgive them for that. (That’s a long story in itself.)

At the end of eighth grade, we decided to establish a 504 accommodation plan because we felt that she needed the documentation going into high school, since up to now everyone had given her accommodations informally. We had to overcome some stumbling blocks, including the fact that she was a straight A student. They felt that since she was getting straight A’s that she was fine. What these clowns fail to recognize is that she would not be getting A’s if she wasn’t getting the informal accommodations. It was a battle, but we won.

High School

We thought we had everything in place until the high school (a local magnet for math and science) informed us that they didn't recognize 504's. They needed proof that she needed accommodations before they would give them to her. They pulled the rug out from under her and made her fail. Once she proved that she couldn't complete her work without extra time, etc., they allowed her to have limited accommodations. They (the over paid, self proclaimed experts – psychologists, social workers, LD resource teachers, counselors, etc.) did not have Sabrina's best interest in mind. They simply wanted to reduce the number of 504 plans that were in place at the school. (They told me this.)

College

The selective institution of higher education had an Assistant Dean over disabilities who worked in the Dean of Student's Office who oversaw accommodations for students. The rules are strict, but fair. Many of the professors do not believe in accommodations, but they are forced to comply. Some have caused her to fail or withdraw due to their resistance to comply. We are now facing the same situation as Sabrina enters Veterinary School at Virginia Tech. We are already preparing our paperwork and sending e-mails to the special education office.

Foreign Language was a difficult process for Sabrina. Learning a foreign language was only duplicating her difficulty with the English language. Even the English language was problematic for her. At age 6, the psychologist told us to never make her take a foreign language. English is a foreign language to her. Obviously, we had no choice if we wanted her to go to college. Sabrina took classes in high school and during the summer to fulfill her prerequisites for language. This was the only way she could have done it.

Obstacles Faced

Many examples are included above. In most cases, the teachers/professors are the biggest obstacles. At first, they assume that she is a typical teenager who is trying to get out of work or take the easy road. However, once they get to know Sabrina and see that she is an extremely serious and dedicated student, most of them become huge fans of hers and bend over backwards for her.

Sabrina has ALWAYS had to study year around. Not because she'd forget things, but because she has to spread the workload out because of her time issues and/or because of her special learning issues. There are only so many hours in each day. So time was an obstacle for her.

KIDS LIKE THIS FALL THROUGH THE CRACKS EVERYDAY!!! It's a CRIME in my opinion to deny these kids the opportunity to reach their true potential; so many of these exceptionally bright kids end up looking and acting average – even above average when they could be excelling beyond belief. Some of the greatest minds in history are among these. I have always called Sabrina the “Poster Child” for how to do it right! The academic community doesn't want to hear it. One of the connections to dyslexia is a very high IQ. It should be the first sign teachers and parents should be looking for.

Also, Sabrina has learned to accept her disability, although it persists as a constant struggle twenty-four and seven; Constant and Continuous. It will never go away. She works harder than anybody can imagine. Just to survive. And, she tries VERY HARD to do her best ALWAYS. It isn't obvious to everybody, but it does show up at the strangest times; the spelling; the temper; the frustration. Her lack of spelling skills makes her appear dumb or uninterested in doing things well. She has learned to laugh it off – and

take the teasing with the understanding that “this is who she is”... and she accepts that. I call it “endearing”... I have come to love it. It’s so “her”... if you know what I mean. It is special. It makes her special and very interesting. Being able to handle it – to accept it even though it is extremely difficult to deal with day in and day out... is a big milestone. I’m extremely proud of her.

Internal Resources/Strengths

Sabrina’s high IQ and the support of her family. Sabrina has been blessed with dedicated parents, teachers, and paid advocates fighting for her every inch of the way; fighting for equal opportunity. She learned through her trials to never taking “no” for an answer. She has developed the ability to advocate for herself. It was not easy at first. Even though she is outgoing and has high self-esteem, she also respects adults and was not comfortable challenging their authority. The teachers and administrators use their position of authority to bully these kids. She has learned to be tactful as well. It is important for her to know that her family backs her no matter what.

When Sabrina was tested she was correcting the psychologist that was testing her and explaining questions to him in the IQ test. In 35 years of doing this, he had never seen someone like Sabrina. He was speechless when he was telling me about it. They found that she had three standard deviations between her verbal score and her performance scores. It’s “standard deviations” – she’s more than 3 standard deviations apart – between her IQ and LD scores. That’s enough to qualify for GT/LD, but her county does not accommodate both. “Pick one.” So, I picked GT. I handled the LD myself through the private sector.

Facilitators/Inhibitors of Personal Strength

The psychologist who diagnosed her explained to us what her educational journey would be like. We were well prepared. We had many occasions where we had to go back and ask for help along the way. We even paid her \$200.00 per hour to meet with the high school officials and explain Sabrina's disability to all those over-paid education specialists and puffed up, self-indulged administrators that I mentioned before.

Sabrina has been inspirational to others... those with and without disabilities. Her peers recognize her strength and dedication. Parents and youth organizations seek her out to inspire others. (Girl Scouts, Pony Club)

Inhibitors were identifiable and in just about every encounter with a school official; however, things changed when we were able to educate them and demonstrate that this is REAL! Most educators think that accommodations give these kids an advantage. Nothing could be further from the truth. But, they just don't get it.

Educational Programs and Provision

I am absolutely certain that sports have been of critical importance. Physical activity is an outlet for frustration, number one. Success in any way, shape or form, is critically important. Learning how to lose as a "team" helps her deal with losing as an "individual." Dyslexia is a very private condition. The victim is all alone. Everyone around her is successful and puts forth very little effort into being successful.

Sports, in Sabrina's case horseback riding, are a chosen passion. She wants to succeed so badly that she learns to put forth unprecedented effort to gain the desired result. Education doesn't instill that desire in most. But, horses or other outside interests do. Through this, these kids learn to work hard, succeed, and also how to handle failure under "normal" circumstances.

Feeding strengths while nurturing weaknesses was something that the diagnosing psychologist said we should do, and we did. It was a key to her success. These kids MUST have special help outside of school.

Crystallizing Experiences

It is a CONSTANT struggle EVERY DAY OF HER LIFE. People DO NOT see it. It is a tragedy. So many promising kids fall through the cracks everyday. No one experience can make or break someone with this disability. It never goes away. You just keep fighting for your life everyday. People just don't get it. The best result is success. Success is often too late, too little, and too hard fought. Keeping up the fight is the hardest part.

Every little thing that we take for granted everyday is a hard fought victory for kids like this. Think of a kid in a wheelchair or one with some visible disease. People on the outside SEE their struggle. Dyslexics are completely misunderstood because their disability cannot be seen, but it is just as debilitating as the ones you can see. I remember when Sabrina was in high school and we were fighting a major battle to have her accommodations put in place. Then, one day she fell off her horse and broke both arms. It was AMAZING how much SYMPATHY she got from those same puffed up school officials for the visible handicap – two casts above her elbows. Everyone was jumping in and offering to help her in any way they could. While fighting the battle, I brought that up as an example. And, of course, two broken arms was NOTHING for Sabrina to deal with compared to dyslexia. We joked and laughed while in the ER waiting for her arms to be set... and we joked and laughed as I had to pull down her pants and wipe her after going to the bathroom for the next 6 weeks!

Environments or Social Contexts

Mainstreaming; the more you can mainstream these kids, the better. Give them their special help on the outside, after school if necessary. They need tons of support 365 days and nights a year. Help should NEVER be denied. So, a good balance of mainstreaming in social situations and in sports, coupled with plenty of outside help. In Sabrina's case, she got outside help 3 – 4 afternoons a week. She also was tutored year-around. You can't stop. Yes, these kids need a break, but they just can't afford it. You have to give them breaks DAILY. That's the key. If you want them to learn to persevere, you have to let them have success as often as possible. Do not set them up for failure, like the high school did for Sabrina. It totally blew her mind. I was absolutely FURIOUS! It was abuse in the worst terms. For the next year or so, whenever I walked into the building – which was quite often – teachers and administrators, would dive into rooms and duck out of the hallway when they saw me coming. I guess that's what it took. I was pleased that they were afraid of me. It meant that they knew I was serious. Then, by the time Sabrina was a senior and they had gotten to know her – they would seek me out and even hug me in the hallways!

Physical activity (athletics) is critically important to the success of kids like this; music as well. Sabrina played violin in middle school and the flute in middle school and high school. She wasn't the greatest player, but reading music really helped her academics.

Utilizing gross motor skills is very important. The fine motor skills are the ones that don't work for a dyslexic. Gross motor skills offer another avenue for success. Success is CRUCIAL for kids like this.

Impact of Strengths and Weaknesses

Strengths and weaknesses are apparent every day. One compensates for the other. Most dyslexics are quite intelligent. First, this is why they are overlooked so often. They use their intelligence to compensate for their inability to learn and as a result, most become average students. Nobody worries about an average kid. Some, however, act out due to frustration. Again, what is physically obvious is what is recognized, and the bad behavior leads to further problems. With Sabrina I did everything I could to advocate for her in a way that would bring out the best she had to give. The circumstances were created; orchestrated by me; every step of the way. And, now Sabrina is defining her own circumstances. She knows how to get things done. She knows what it takes and she gravitates to those who will listen, understand, and assist. Those who get to know her can see that she is an exceptional individual

As you may or may not know, Sabrina has been accepted into the MBA program at her current institution AND into the Veterinary School at Virginia Tech. Vet school is extremely competitive and is probably the most difficult graduate program to get into. In OUR case, the victory of being accepted in this program translates into a selection panel that "GETS IT." They looked at the whole application, not just the GPA. Sabrina thought that getting in was a long shot at best. She told me that I was the only one who thought she'd get in. None of her current teachers thought she'd make it. But, I know her. I was the only one who saw her application. I felt that she had an excellent application. I knew that this was the right place for her. She has been working towards it all her life. After all the excitement settled down, I thought about what this REALLY meant. I called her several days later and said, "Sabrina, I've been thinking about this, and I'm really glad that somebody finally got it right. This is the payoff for ALL the

frustration you've been forced to endure. This is where you wanted to be and this is where you belong. You truly deserve this opportunity. THIS is the payoff for all those C's that should have been B's. THIS is the payoff for all those B's that should have been A's. You never gave up. This is your reward. Finally, somebody got it right. I am so proud of you for sticking to your goals. You never have to look back at those grades and feel badly ever again. It's history. You got what you deserved, FINALLY!

Parental Input – Academic Journey-0012Elementary

Heather experienced many triumphs and setbacks at each stage of her educational journey. She was born with an hemangioma that encompassed half of her face and head that cause amblyopia in one eye and a malformed ear that required treatment and ultimately plastic surgery. Hearing in that ear was also reduced. Because of her facial deformity, socialization was a problem to be faced. We made a decision early on to face it head on, exposing her to many people and groups and helping her deal with the consequences. She began attending Montessori school at 2 and a half and already was aware that she looked different and that others commented on her appearance in unkind ways. She was in the Montessori environment for 3 years before we moved to Virginia, an environment she learned to enjoy and thrive in. Out of a class of fourteen, she made friends with two children that still keep in touch after all this time. The mother of one was a doctor; the other, an engineer.

In the elementary years, we engaged her in intensive educational programming, piano instruction, dancing, tennis – all to stimulate interest and to develop different aspects of her mind and body, especially to promote coordination and balance. She attended Saturday and summer academic classes since she was 4; she attended Saturday Enrichment Programs and residential summer programs across three years.

Her academic talents were also supplemented through family travel to various countries, family friends who were renowned psychologists and educators, and home-based activities that deliberately promoted academic talent development. She was read to

and encouraged to read from an early age, unlocking the system on her own by age 5 and a half. Prior to that she memorized books read to her and pretended to read them. She spent hours drawing abstract shapes from an early age, experimenting with color and form. We encouraged puzzle making and hands on play with Lego's, tasks she did not take to as well. She love Sesame Street from eighteen months and watched the Nutcracker straight through at that age, fascinated by the dance and music.

Elementary school was a bland succession of mediocre teachers and limited success in her school district. Her first academic triumph came with learning Latin while we were in Cambridge, England during her sixth grade year. She love it and kept progressing to more difficult challenges such that she completed half a high school program in 3 months.

Middle School

Middle school was a different kind of experience. She changed to a small private school for end of 6th and 7th grade in a nearby city and then to a local private Catholic school for 8th grade. In both schools, she encountered both success and failure. Her spelling abilities emerged and she took 4th in the region in 7th grade. She struggled with poor teachers and did well with good ones. However, her verbal abilities continued to develop and she was placed in Latin II in 8th grade based on a proficiency test. The small schools were good to help her stay focused and provided more personalized support, but they also housed many poor teachers and insane rules and procedures. Her religious development also flourished during these years, with a decision to become Catholic coming a few years later as a high school junior.

After 3 years of piano, she switched to voice lessons as her music interests shifted. In 7th grade she began theater work through a course in a Saturday Enrichment Program and in 8th grade through a performance at her private school, which has continued to be a passion to this day. Each year through college she has performed in or directed at least one production each year. While this part of the journey involves the arts, it kept her alive to be able to handle the academics of school which she found more difficult as years went by and more stultifying. The exceptions were in the verbal areas of Latin, French, and selected English classes at each level of schooling.

High School

High school was successful for the first two years, with steady progression in academic work, taking the PSAT and doing well, beginning to tour colleges, taking an AP English course at a Midwestern college the end of her freshman year and receiving a % on the exam the next May. These two years were spent at a local private school, culminating in her taking AP Latin and receiving a 4. She also placed across all years in Latin on the National Latin Exam, receiving three silver and one gold medal as well as a cum laude. Her transition to public school for her junior and senior year was rocky-lots of death, her own depression and formal diagnosis of ADD and LD, leading to her taking heavy medications for the first time in her life. She managed to graduate a semester early with a 4.0 after experiencing failure in pre-calculus and a general depression of grades in all her subjects. Her chemistry class and teacher was an exception to this pattern. Even her work in Latin had declined such that her second AP exam yielded only a 3. This along with other signs suggested she was experiencing some form of cognitive decline during this period.

As a high school junior she attended the Governor's School Residential Program in Latin, which was a very important event as she had switched schools that year, been diagnosed as ADD and with clinical depression. Yet she succeeded in this highly competitive context, had the lead in the play performed all in Latin, and made very strong friends.

College

Early college entry gave her a boost with opportunities to continue taking French, taking a freshman seminar in English with one of the best professors in the department, and having a role in a Shakespeare play. Yet, the next full year of college was challenging as she moved into the dormitory situation, complete with a roommate and responsibility for living on her own. She survived this first year with great difficulty, mostly due to her being diagnosed with a brain tumor which was treated in January of this year. She continued in school, feeling very tired and ill. Classes took a backseat to her physical problems but she persisted and finished the semester. Her sophomore year was a disaster, having to take a medical leave after finding out she was failing courses due to absence. Her dormitory experience was untenable, living in a small space with two other roommates. She continued to experience great fatigue, lethargy, and a general sense of being lost. She move back home in December after her withdrawal and began working in February at a quilt store to give her work experience and keep her busy during her time away from school.

She was supposed to restart her program the following fall, but faked registration and class attendance to our horror, only reentering college in the spring. She took classes every summer except the one after her withdrawal to keep up work and did better during

the summer terms, which were shorter, more intensive, and generally less demanding from her perspective. At least her ADD problems were more under control in the shorter time frames. Yet medical problems persisted, some due to the tumor treatment perhaps and some due to fibromyalgia which was diagnosed at about the same time. She barely made it through subsequent semesters, with up and down grades in all areas. Graduation was scheduled for May, 2005, but unfinished course work delayed it until August with her science requirement having to be taken that summer along with making up an incomplete.

Obstacles Faced

Her obstacles were in two areas; physical problems such as the hemangioma that limited vision and hearing and promoted social adjustment problems and the later development of fibromyalgia and the tumor which brought about pain in her joints and severe fatigue as a result of radiation. In the area of learning, her compromised vision and hearing impacted her ability to visually and auditorially process information in classrooms. Moreover, her ADD condition further impeded her academic ability by making her more inattentive and distractible than would be desirable in classroom settings from the beginning, although it remained undiagnosed until she was sixteen. Teachers merely saw her behavior of not turning in work, not completing assignments, or sloppy disorganized behavior as being lazy and uncooperative rather than a learning problem. Her depression at ten and again at sixteen further depressed her cognitive functioning.

Internal Resources/Strengths

I believe Heather learned coping strategies with many of her problems early on. Learning to find friends who would protect her from those who made fun of her, trying to address her deficiencies in math by doing extra practice problems at home including Math Blaster and having a math tutor at key stages, and having her mother structure time and activities that provided greater focus for her efforts.

Heather has a strong sense of persistence and adaptability to new circumstances that has stood her well in learning situations. Under very difficult circumstances, I have never seen her give up or ask for an out that was not appropriate. She has persisted in her academics despite many setbacks. While her self-esteem has not been high in many areas, she has maintained a view of herself as a gifted person which I think has helped sustain her through some of these situations. She also is a doer, liking to accomplish things and keep busy, a quality that also has helped to push her forward rather than cause her to retreat.

Personal Facilitators/Inhibitors

I believe there have been very important people in her life-her parents have been crucial in getting her a good start in the arts and academics and continuing to support her development at each stage. She has had great teachers who have inspired her to do more- from middle school through college, selected individuals who touched her intellectually and emotionally. She also has had friends and colleagues of her parents who took a strong interest in her growth and ability.

Inhibitors for Heather have been people who saw her as smart but not capable due to laziness. I believe these people, primarily teachers, held her back and caused her to doubt herself more. Peers who were cruel or demeaning of her were problems, beginning with a bully in preschool and one in elementary school as well. Challenges that required precision or psychomotoric skills were frequently overwhelming for her and caused her problems. Physical education classes, for example, were a real challenge all the way through school. Her parents inadvertently may have been inhibitors at times due to pressuring her to perform when she was not ready or comfortable.

Programs and Provisions

I would say that Heather's involvement with Montessori early was very good in terms of stimulating interests and socialization. Her attendance in Saturday and summer programs provided added enrichment that kept interest in academics alive and many teachers she encountered in these classes were excellent. Moreover, the residential courses earned her high school credit and AP credit, a further incentive to keep going. The Governor's School Latin Academy was a special opportunity that cemented her interest in the classics for all time. My early work with her in Latin, I believe, really mattered as well. The timing was propitious and the opportunity allowed me to see her learning problems up close. From her perspective, it provided a context for her to understand how much I cared about her learning – and I was teaching her something I loved which also made it special. Her father's work with her in music, I believe, also positively influenced her love of it and paved the way for many explorations with instrumental and vocal experiences. Her work in theater with professionals delighted her

and caused her to grow and develop. Theater was also a supplemental part of our family life on a regular basis, with annual trips to New York and London for plays.

I do not believe that she had inhibiting experiences except for the routine of regular schooling. Her general experiences in math classes were not positive, and as mentioned before, several teachers and their classes may have inhibited her development. Two English teachers come to mind whose classes were counterproductive in learning to analyze literature and to write effectively, areas in which she excelled.

Crystallizing Experiences

Facilitators

As mentioned, I think Ariel's being treated as a gifted child was an important ongoing experience for her in her identity formation. When she won her spelling and Latin awards, I think it made her see her promise in those areas. When she did well in the advanced classes at N U it convinced her she could be competitive academically. When she performed on stage in meaningful parts, she knew she could act. When she directed the three ancient plays for the Classics Department her college, she realized she was good at it and preferred it to acting. I think teaching has been the most crystallizing experience she has encountered to date because it has provided her a lens to understand herself better, and to see ways she can use her abilities to help others.

Inhibitors

Inhibitors were bad teachers and mediocre school experiences.

Environments and Social Context

Ariel has done well in one-on-one tutoring contexts, small group learning, and small school settings that are highly structured. She does best in shorter term learning

situations like summer school courses or 3-week intensive experiences like residential precollegiate programs. She is highly social and learns better with someone rather than independently.

Least conducive environments are those that are ill-structured and open-ended. Large schools and large classes also were a hindrance, especially where teachers did not pay attention to her needs and where she felt in the absence of a friendly peer group.

Strengths and Weaknesses

Weaknesses were evident early on but they were not serious in respect to consequences in respect to grades or other sanctions for behavior. High school became more challenging in respect to maintaining grades for college entry. College became the biggest test of limits—strengths became grounded and ADD-related weaknesses showed up to be pervasive, especially in weaker academic subjects. As schooling advanced, it became more difficult for Ariel to hide weaknesses or for them not to matter.