STUDENT PERCEPTIONS OF ENGAGEMENT IN PART-TIME AND FULL-TIME GIFTED PROGRAMS

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IN PART-TIME AND FULL-TIME GIFTED PROGRAMS

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STUDENT PERCEPTIONS OF ENGAGEMENT IN PART-TIME AND FULL-TIME GIFTED PROGRAMS

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ABSTRACT

The study was conducted within the gifted programs offered at a public school district of approximately 25,000 students located in the Midwest. The researcher focused on students' perceptions of learner engagement within the gifted education program in which they were enrolled. The intention of this study was to determine students' perceptions of engagement while attending the full-time and part-time gifted programs. The study enabled comprehensive insight into student perceptions of the gifted program in which they are enrolled.

The mixed design case study included 208 sixth, seventh, and eighth grade students enrolled in part-time or full-time gifted programs. Students responded to statements rated with a Likert scale and a short open-ended questionnaire for students to add more depth to their survey answers. The statements focused on their levels of engagement as determined by enjoyment, interest, challenge, and choice regarding the educational experience.

CHAPTER ONE

INTRODUCTION

Education of the highly gifted student has long been debated among those inside and outside of the field of education (Subotnik, Olszewski-Kubilius & Worrell, 2011). Students identified as gifted are often highly verbal, endlessly curious, and have precocious reasoning ability. These students may have prodigious memory, be highly intense and sensitive, and are often highly interested in justice, ethics, and morality. Students who are gifted learn and process information at a faster and deeper pace than other children. It is believed the more gifted an individual is, the more unique the individual's needs. In response to this belief, the more gifted a student might be, the greater the need for the school curriculum to be modified or differentiated (Clark, 2009; Culross, 1997). Delisle (1999) writes:

> Imagine you are a good tennis player. In fact, you're so good that you have difficulty finding a partner who can consistently return your volleys. Now imagine this: Every time you play tennis, your opponent is a beginner whose skills are far below your own. Challenge is rare, and even if you do get to refine a few good moves, the net result is a game that doesn't let you break a sweat. Pretty soon, you wonder whether playing tennis is worthwhile at all. (p. 80)

The analogy above describes how a gifted child may feel in a regular classroom. If a gifted student never has the opportunity to rise to the occasion of being challenged, he/she cannot grow intellectually. Gifted students need the opportunity to be with others

in their intellectual peer group. Often, true peers may only meet through differentiated programs (Culross, 1997; Adams-Byers, Whitsell, & Moon, 2004).

Students identified as gifted expand as individuals when given the opportunity to connect with like-minded students. "Gifted students can benefit from time spent alongside their intellectual peers in settings that allow them to express their individuality with others much like themselves in ability and intensity" (Delisle, 1999, p. 81). For gifted students to thrive, they require an atmosphere where they are intellectually challenged. In most settings, gifted part-time programs serve these students one day a week. This setting may include a classroom on school campus where gifted students meet with a certified gifted teacher for academic and affective education, or a gifted center, which generally involves parents transporting children to a school or learning center one day a week separate from the students' home school. This center may serve several schools within the district with gifted certified faculty. "Developmentally based programming and practices for gifted students must be appropriate. They must be developmentally appropriate in the sense that they address the asynchrony typifying gifted development" (Morelock & Morrison, 1999, p. 195).

A public school located in Missouri has endeavored to meet the diverse needs of highly gifted learners with a full-time program. For the past 18 years, the district has provided a full-time, accelerated program for gifted middle school students. This full-time program for the gifted serves students in grades six through eight residing within the district's attendance area. The program provides academic, social and emotional support to middle school gifted students as they transition from sixth through eighth grade. The program individualizes course offerings based on student readiness and offers academic

acceleration and a wide range of courses available at both the high school and middle school level. Students are supported by a faculty certified in gifted education as well as subject matter. In addition, the program has access to a counselor and additional administrative support to address students' individual needs on a daily basis. Gifted Education faculty and parent groups provide a variety of monthly social events and extra-curricular activities to support the social and emotional development of these gifted students.

The study focused on students' perceptions of learner engagement within the gifted education program in which they were enrolled. The intention of this study was to determine students' perceptions of their level of engagement while attending the full-time and part-time gifted programs.

The first portion of the survey gathered quantitative data and included statements about engagement as determined by the *My Class Activities* (Gentry & Gable, 2000) survey. Students responded on a Likert scale with answers ranging from "Always" to "Never." Survey statements included student perception of the interest, challenge, and enjoyment of class activities and of the materials utilized in classes. Students also responded as to how much choice they believed they had in terms of selecting their own projects, selecting their own materials, and working individually or with partners. The second portion of the survey included a five item open-answer questionnaire relating to the students' perceptions of their academic experience. The questions were designed to give students the opportunity to expand and add more depth to a particular or chosen designated Likert survey question.

Data was used to compare student perceptions of engagement as determined by enjoyment, interest, challenge, and choice; students in the part-time program and the full-time program were included in the study. The inclusion of open-ended questions provided more insight into student perceptions.

Conceptual Framework

Gifted students learn and process information at a faster and deeper pace than other children. It is thought the more gifted an individual is, the more unique the individual's needs. In response to this belief, the more gifted a student might be, the greater the need for a differentiated curriculum and instructional environment (Meckstroth, 1990; Passow, 1981; Tolan, 1992).

Many gifted learners show evidence of high achievement capability in intellect, academic aptitude, creativity, productive thinking, and leadership. These gifted learners require services and activities not ordinarily provided by public schools in order to fully develop and demonstrate those capabilities (Passow, 1981; NAGC, 2013).

For those who research the cognitive and affective needs of gifted children, several characteristics are discernible. Tolan (1992) states there are observable symptoms for gifted children, which include: "adult vocabulary, playing appropriately with toys designed for much older children; complex questions and conceptualizations; interest in world affairs; moral distinctions and ethical questions; difficulty understanding and playing successfully with children their own age; preference for adult companionship and conversation" (p. 15).

Looking at highly gifted individuals, the characteristics may remain the same, but the degree of severity is much greater. Intellectual characteristics in gifted children tend

to increase in strength and severity in accordance with IQ score. "The more intelligent the child, the more complex, sensitive, and intricate are their perceptions of the world" (Lampe, 1998a, p. 10).

Meckstroth (1990) describes the following affective characteristics of highly gifted children: Gifted children seem to overreact. As they have an expanded capacity to absorb the world, they may sometimes be on an intellectual or emotional overload and waver from euphoria to despair. Gifted learners crave complexity and stimulation. Many gifted students may consider the daily routine of school as emotional and intellectual suffocation. Gifted students crave value and meaning, what is important and sacred to them may not be obvious to others. On the other hand, they may sense a complete lack of purpose in what may interest their classmates. Gifted learners have a keen awareness and vivid imagination that can evoke a cynical side and rich sense of humor. Gifted students may express their cynicism or their humor as a way to survive and accept divergent views and above all else, they are complex and unique. Gifted learners seem to be living multiple lives concurrently, having multiple selves and multiple ages. The combination of cognitive and affective needs presents problems for gifted students as they make their way through their years of schooling. The lack of challenge can erode the level of engagement and sense of purpose in these students.

In 1993, the U. S. Department of Education released a report entitled *National Excellence: A Case for Developing America's Talent*. The authors estimated that less than 20% of gifted students are appropriately challenged in schools nationwide and shown that the national response to gifted students in the United States has been one of neglect rather than challenge. The authors stated, "America's most talented students

often fail to reach their full potential. They are under-challenged and therefore underachieve" (1993), and the Templeton National Report on Acceleration (2004) asserts, "It's a national scandal. And the price may be the slow but steady erosion of American excellence" (p. 1).

According to the U. S. Department of Education report (1993) there are no federal mandates requiring states to educate their gifted students. Each state may decide whether, and to what extent, it will provide services to gifted learners. Some states choose not to address gifted education at all. In Missouri, gifted education is not mandated. As of 2014, only 225 of 535 public school districts identify and service gifted learners (Welch, 2014) with only 42% of school districts serving gifted students. In the twenty years since this report was issued, the U. S. Department of Education has yet to address this discrepancy, making gifted learners the most underserved and underfunded populations within our schools (Schroeder-Davis, 1995). This lack of services creates a need for deeper research for the area of educating and serving gifted learners.

Leta Hollingworth, noted gifted authority, author, and pioneer in educational psychology in the early 1900s, published misconceptions about giftedness over 87 years ago, these same myths persist today. For decades, myths related to gifted education have had detrimental effects on providing quality instruction for our nation's high-ability learners. These misconceptions have affected every facet of the field, and in turn have distorted the perception of not only what gifted students need in the classroom, but also what they can offer the nation now and into the future (NAGC, 2013).

Persistent beliefs and the subsequent responses associated with gifted education myths contribute to an overall lack of attention and challenge for high-ability students in

schools. As a result, gifted education programs remain underfunded, achievement gaps continue to widen, and too many children across the nation who require differentiated curriculum have no place to learn (NAGC, 2013). Misconceptions and myths result in a lack of attention and challenge for high ability students.

All of these issues, the high level of need for cognitive challenge, the affective aspects of gifted students, the current situation of gifted education in America, the lack of teacher training, and the prevalence of myths and misconceptions about the nature of giftedness, all combine to create a maelstrom of difficulties. While we may call these students our "brightest and best," there is little evidence that their needs are being met in the public school. While we may not be able to do much about the lack of funding or the absence of mandates, we can look more closely into how students in gifted programs are having their needs met. More research into student perceptions about their learning process will provide a step toward understanding how to meet their unique needs.

Problem Statement

The highly gifted remain among the least understood and under-appreciated groups of children in America (Meckstroth, 1990). Vail (2001) stated, "Americans today do not place a very high value on intellect" (p. 22). According to Kilmis and VanTassel-Baska (2013), for gifted programs to be considered exemplary, the teachers in the program should demonstrate high level competencies. Gifted Education teachers should have an understanding of cognitive and social/emotional characteristics of gifted learners. Teachers of gifted students should develop challenging, rigorous and appropriate interdisciplinary curriculum that promotes creative, critical and complex thinking, and provide differentiated instruction that addresses relevant, real-world problems.

For decades, myths related to gifted education have had detrimental effects on providing quality instruction for our nation's high-ability learners. These myths have affected every facet of the field, and in turn have distorted the perception of not only what gifted students need in the classroom, but also what they can offer the nation now and into the future (NAGC, 2013). Persistent beliefs and the subsequent responses associated with gifted education myths contribute to an overall lack of attention and challenge for high-ability students in our schools. As a result, gifted education programs remain underfunded, achievement gaps continue to widen, and too many children across the nation who require differentiated curriculum have no place to learn (NAGC, 2013).

In the last ten years, the United States Congress has stopped funding research in the field of gifted education; school districts in almost every state have either cut back or completely eliminated funding for their gifted programs (Fisher, 2014). Legislators take a keen interest in comparing U.S. student scores with those of other nations. Hence, legislation is passed to address the perceived shortfall in our education system. Federal reforms enacted by the U.S. Department of Education, such as No Child Left Behind (2001), are thought to be an equal opportunity learning endeavor for all students. However, these reforms have only exacerbated the issue for gifted students by increasing the attention on standardized testing and focusing on moving the students in the lowest quartiles up the assessment scale at the expense of growing learning opportunities for all students, including gifted students.

Each state differs in the definition of gifted children, disseminate state funds for gifted programs and evaluate gifted children for services. According to the U. S. Department of Education report (1993), "There is no federal mandate requiring states to

educate their gifted students. Each state individually may decide whether and to what extent it will provide special services to the students who excel in their classrooms." Some states choose not to address a public school gifted program at the state level at all (NAGC, 2013).

Not only is there a lack of mandated programs for gifted students, gifted education programs are often considered a "last in, first out" phenomenon: The last to be put in place in good times, the first to go when times are bad (Sternberg, 1996, p. 170). School districts that choose to serve gifted learners do not receive any federal funding and only a few states provide adequate funding (NACG, 2014). Most gifted education programs and services are dependent solely on local funds. This suggests, in spite of the need, only higher-income school districts are able to provide services, giving the appearance of elitism. An efficient gifted program requires little more than an acknowledgement by district and community personnel that gifted students need something different, a commitment to provide appropriate curriculum and instruction, and to train teachers to identify gifted students and to develop strategies to teach gifted students (NAGC, 2013). As a society that truly believes that all students have the right to learn, gifted learners must be included in *all*.

While the focus of this study is on students who are identified as gifted and who are in either a part-time or full-time gifted program, it is wise to note the lack of training in the regular education classroom, where a large percentage of gifted students not served by a gifted education spend their time. The National Research Center on Gifted and Talented (2013) found that 61% of classroom teachers have no training in teaching highly able students, and 58% of teachers have received no professional development on

teaching academically advanced students. Students with this advanced capacity require modifications to the regular curriculum to ensure these children are challenged, learn new material, and have educational services available to meet their unique learning needs. The lack of teacher training and the prevalence of gifted students in school can cause frustration for both teachers and students. It is imperative that a caring professional adult help gifted learners break the cycle of underachievement in order for students to achieve their full potential.

Purpose of the Study

The purpose of this study is to explore student perceptions of how gifted education addresses the needs of students involved in part-time and full-time programming and what differences exist between the students in a part-time program and those in a full-time program. Gifted students may deal with many complex issues in the areas of intellect and accelerated speed of learning as well affective areas of social and emotional responses. Many gifted students are so far ahead of their same-age peers that they know more than half of the grade-level curriculum before the school year begins (Reis, 2000). The resulting boredom and frustration may potentially lead to low achievement, despondency, or unhealthy work habits. Underlying the problem, it is estimated that 20 to 25% of gifted children have social and emotional difficulties, about *twice* as many as in the general population of students (NAGC, 2013). This study proposes to shed light on student perceptions of learning engagement in one gifted program.

Research Questions

The following questions drive the purpose and content of the study:

1. What are student perceptions of learner engagement and the manner in which their needs are met in the areas of interest, challenge, choice and enjoyment?
2. What differences in perception of learner engagement exist between students in a part-time program and those in a full-time program?

Limitations/Delimitations

1. The researcher did not have control over the survey respondents' truthfulness.
2. Representation was limited to students participating in gifted programming within the district.
3. The study was limited to middle school students, grades six through eight.
4. The researcher was the administrator for the gifted education programs within the district. This put the researcher in the position of participant observer, and also someone who interacted with the subjects/participants on a regular basis.

Definition of Terms:

Acceleration: Advancement in mental growth or achievement beyond the average for one's age; (Merriam-Webster, 2013). For example, any strategy that results in advanced placement or credit: grade skipping, subject skipping, or early admission to elementary, middle, high school, early graduation, or early admission to college.

Asynchronous development: An imbalance between cognitive, social and emotional development (Tolan, 1992).

Gifted: Those children who exhibit precocious development of mental capacity and learning potential as determined by competent professional evaluation to the extent

that continued educational growth and stimulation could best be served by an academic environment beyond that offered through a standard grade level curriculum (DESE, 2013).

Gifted programming: Part-time or pull-out programs take gifted students out of their regular classroom for one or more hours a week and provided with enrichment activities and instruction. Grades are generally not recorded in student's permanent transcripts. Full-time programs serve the needs of academically gifted students in either a separate class or a separate school. Grades are recorded in student's permanent transcripts (Bainbridge, 2013).

Highly gifted: An IQ score which is three (145+) or more (160+) standard deviations from the norm (Gross, 2000).

IQ/Intelligence Quotient: A number used to express the apparent relative intelligence of a person; the ratio of the mental age (as reported on a standardized test) to the chronological age multiplied by 100; a score determined by one's performance on a standardized intelligence test relative to the average performance of others of the same age (Merriam-Webster's, 2013).

Summary

Chapter one introduced the purpose of this study: to explore student perceptions of how gifted education addresses the needs of students involved in part-time and full-time programming. Studies indicate that the vast majority of gifted students are not adequately challenged in their current educational settings, resulting in boredom and frustration (Schroeder-Davis, 1995; Willis, 2007). The U. S. Department of Education (1993) has gone on record stating that we fail to ensure our gifted learners will reach their

full potential, yet there are no federal mandates that require school districts to provide gifted programs. Chapter two reviews literature relevant to the study including historical background, definition, programs and services, characteristics and misconceptions of gifted learners. Chapter three describes the design research methodology for this case study. The instrument consists of a Likert-type rating scale and a free response survey relating students' perceptions of their academic experience. The scale and survey are designed to assess the gifted learner's engagement in the full-time gifted setting. Chapter four contains the analysis of the data. Chapter five includes the conclusion and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

The review of literature includes a historical background of gifted education, followed by the definition, characteristics, and misconceptions regarding gifted learners. In addition, this is an overview of effective programming for gifted learners including research based best practices and full-time programs for gifted learners.

The first section concentrates on the history of gifted education in the United States. This section provides a backdrop by focusing on the history of giftedness, including historical influences, identification procedures, national reports, and recommendations from the gifted education community. The second section provides a variety of definitions and characteristics of gifted learners, highlighting the unique and complex social and emotional challenges gifted students demonstrate. Not only is it important to address the academic needs of gifted students, but also to study the affective needs that, when not met, often lead to a loss of efficacy and low self-worth. The effects of these feelings can result in a lack of motivation for learning and productivity, and in some cases result to deep depression and suicidal thoughts and action. In addition, this section reveals some common misconceptions educators, parents and policy makers have about gifted learners. The third section provides an overview of gifted services and programs, with a study of how current program formats are addressing the needs of gifted students. The section includes programs for innovation, creativity, and a focus on 21st

century skills and how they compare to traditional middle schools and other gifted services provided through public, private, or parochial schools.

Historical Background

One of the first uses of the term "gifted" was in 1869, when Francis Galton, a prominent research developer of eugenics, referred to adults with exceptional talent in a specific area as gifted, such as a gifted biologist. Galton also believed that children could inherit the potential to become gifted from their parents (Bainbridge, 2013). Lewis Terman, best known as the inventor of the Stanford-Binet IQ test, expanded on Galton's view in the early twentieth century. Terman initiated a longitudinal study of 1500 children with high IQs called the *Genetic Studies of Genius*. The first volume spanned nearly forty years (Cherry, 2015). Terman believed that intelligence testing could be used as a positive tool to shape society. Conversely, Terman's on-going study found that IQ alone could not predict success in adulthood. Terman found that children who tended to exhibit "prudence, forethought, will power, perseverance, and the desire to excel" (Cherry, 2015, para. 16) rated higher in goal-orientation, self-confidence, and perseverance as adults. While IQ may play a part in student success, personality traits are also important factors in determining positive outcomes in adulthood (Cherry, 2015).

Hollingworth also believed that the potential to be gifted was inherited. However, she believed that a nurturing home and school environment were a must in cultivating that potential. In 1926, Hollingworth published, *Gifted Children, Their Nature and Nurture*, and the term 'gifted' has been used to identify persons of high IQ ever since (Bainbridge, 2013).

In 1957, the Soviet Union launched Sputnik, which sparked the United States to reexamine its "human capital and quality of American schooling particularly in mathematics and science" (NAGC, 2008). For many, Sputnik was proof that American education, particularly in science, had fallen behind. Scientists and engineers warned Congress that the cold war was being fought with slide rules, not rifles. As a result, the National Defense Act was established in 1958, authorizing appropriations to develop rigorous academic programs in math, science and foreign language (Stephens, 2000; Dean, 2007). While this did not directly relate to gifted individuals, it set the precedent to demand more of our educational institutions.

The first federal definition of gifted was offered in 1972, when the U.S. Department of Education released the Marland Report. This report encouraged schools to define giftedness broadly; along with academic and intellectual talent, the definition included leadership ability, talent in visual and performing arts, creative, and/or productive thinking (NAGC, 2008). In 1975, PL 94-142, the Individuals with Disabilities Education Act (IDEA) was passed. At that time, educators of gifted learners missed the opportunity to be included as individuals with differences, and gifted was not covered under IDEA. "Had educators of gifted children worked with educators in the 1970s to see the commonality of needs for individualized education, perhaps gifted children would have more opportunities today" (Corn, 1999, p. 20).

The U. S. Office of Gifted and Talented was established in 1978 to monitor gifted individual's educational needs, but the office was eliminated in 1981 due to budget constraints and funding cuts in the area of gifted education (Stephens, 2000). In 1983, *A Nation at Risk* reported the scores of America's brightest students along with their failure

to compete with international counterparts. The report included policies and practices in gifted education, raising academic standards, and promoting appropriate curriculum for gifted learners (NAGC, 2008).

Congress passed the Jacob Javits Gifted and Talented Students Educational Act in 1988 as part of the Reauthorization of the Elementary and Secondary Education Act to support the development of talent in U.S. schools. The Javits Act was the only federal program dedicated specifically to gifted and talented students, but it could *not* fund local gifted education programs. The purpose of the Act was to "orchestrate a coordinated program of scientifically based research, demonstration projects, innovative strategies, and similar activities that build and enhance the ability of elementary and secondary schools to meet the special educational needs of gifted and talented students" (NAGC, 2013).

National Excellence: *The Case for Developing America's Talent* was issued in 1993 by the United States Department of Education. It outlined how America had neglected its most talented youth. In 2001, No Child Left Behind Act (NCLB) was passed, and although the Javits program was included, no funding was allocated for grants. The Council for Exceptional Children (2015) reported the U. S. Congress eliminated funding the only federal program dedicated to supporting the needs of high-ability learners in 2011 (Shah, 2012).

Definition of Gifted Education

In order to have a discussion on gifted education, one should start with the basics: a definition of gifted. Although this would seem to be an easy undertaking, the definition of gifted, in itself has many complexities. "Defining the term gifted is no easy task.

Numerous definitions have been suggested, but no single definition of giftedness is accepted by everyone or even by a majority of people" (Bainbridge, 2013). The Morelock & Morrison (1999) define gifted development as, "A distinctive and atypical pattern of development in which children's cognitive abilities are developing at a faster rate than expected for their age" (p. 195). The National Association of Gifted Children (NAGC) acknowledges the complexity of defining gifted, "The quick response is that there is, as yet, no universally agreed upon answer to this question." NAGC goes on to say that giftedness may look different in different contexts and cultures. "Even within schools you will find a range of personal beliefs about the word "gifted" which has become a term with multiple meanings and much nuance (NAGC, 2013).

According to the Department of Elementary and Secondary Education (DESE), the state of Missouri, section 162.675.RSMo defines gifted children as:

> Those children who exhibit precocious development of mental capacity and learning potential as determined by competent professional evaluation to the extent that continued educational growth and stimulation could best be served by an academic environment beyond that offered through a standard grade level curriculum. (DESE, 2013)

Perhaps the most widely used definition is that of the U.S. Office of Education:

> Gifted and talented children are those identified by professionally qualified persons who, by virtue of outstanding abilities, are capable of high performance. These children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society. (Passow, 1981, p. 1)

Passow (1981) went on to state that children capable of high performance include those who have demonstrated achievement and/or potential ability in the following areas: general intellect, specific academic aptitude, creative or productive thinking, leadership ability, and visual or performing arts.

Characteristics of Gifted Children

Authorities in the area of gifted and highly gifted can agree on several characteristics (Meckstroth, 1990; Passow, 1981; Tolan, 1992). Gifted individuals are highly verbal, endlessly curious, and have precocious reasoning ability. They are considered to be quick learners, have a prodigious memory and unusual interest in justice, ethics, and morality. Gifted students are often highly intense and very sensitive. They can have an advanced sense of humor and will often prefer older friends. According to Lampe (1998b) the most frequent characteristic is a tendency towards perfectionism, which can sometimes become debilitating as students cannot complete, or even start assignments they feel will not be perfect. It becomes apparent, after looking at the complexity of the affective behaviors of gifted students, that attention be given to their affective, as well as the academic needs.

The academic and affective characteristics of gifted students make the job of the regular education teacher demanding. In the classroom, it is more difficult for teachers to meet all the special needs associated with highly gifted students. In order for a student to receive special services, a teacher or parent must refer the child for testing. "It is necessary to *prove* one's need, in order to acquire appropriate educational resources" (Tolan, p. 15). For these children, and for children from environments in which developmental characteristics and differences may not be noticed or recognized, an IQ

assessment is an essential tool for identifying the highly unusual mind. Regardless of the IQ assessment given, Tolan suggests that it is not possible to assess an individual's most notable characteristics such as humor, intensity, sensitivity, stubbornness, independence, and creativity (Tolan, 1992).

The highly gifted remain among the least understood and under-appreciated groups of children in America (Meckstroth, 1990). Vail (2001) stated, "Americans today, do not place a very high value on intellect" (p. 22). When researching gifted programs across the US, very little recent research has been conducted in the area of highly gifted children. So where do they fit in the general education population? Tolan (1992) noted, "Simple observation shows us that exceptionally gifted children are different from each other in personality, in character, in temperament, in specific abilities and talents" (p. 14). Some of the attributes of the highly gifted child as described by Webb (1993) in, *Guiding the Gifted*:

> Gifted and talented is not something you can take up lightly on free weekends. It's something that's going to affect everything about your life, twenty-four hours a day, 365-¼ days a year. It's something that can force you into being mature before you might be ready; it's something that can go all wrong on you and leave you torn apart. (p. 31-32)

Teachers explain one of the difficulties in the adjustment to school procedures when a child has the thinking capacity of a twelve year old; the body of an eight year old; and the lifespan of a six year old (Meckstroth, 1990). This may leave the highly gifted child feeling very different, out of sync with others, i.e., asynchronous. The child may often wonder, "What's wrong with me?" This can cause some degree of isolation even

among gifted peers, because their thinking is often very different from the average gifted child (Geiger, 1997).

Problems arise for precociously gifted children when cognitive development outstrips other aspects of development such as chronological, social, moral, and emotional. It is often thought the higher the IQ of a child, the greater asynchrony; which may require special consideration to address these exceptional needs by the parents, school, and counselors (Lovecky, 1994). Tolan (1992) wrote:

> Our society may value what the highly gifted can accomplish, but it is extremely uncomfortable with the idea that only the highly gifted can accomplish it. While both understand and accept that not everyone can be a star athlete, we feel it undemocratic to suggest that not everyone can be a star intellect. (p. 17)

Society is afraid to admit that without the ability to think critically, defend ideas and understand others, we cannot fully participate in our democracy (Vail, 2001).

In addition to critical thinking, active learning is cited as a key component of a balanced education. Active learning pedagogies are deeply rooted in the constructivist theories of John Dewey and his 1916 publication, *Democracy and Education*. Dewey asserted that learning should be hands-on, problem-based, and authentic in nature. Dewey expressed concerns regarding traditional educational methods, and advocated for a more holistic approach, an interconnectedness of engaged learners and the community. Dewey believed the acquisition of knowledge and skills through active engagement in complex problems creates true learning. This was a sharp contrast to teaching content and skills without a connection to life experiences. Dewey advocated for students to be equipped at being productive members of society. Dewey proposed three specific

components of a successful educational model: authenticity of instruction, active engagement of students, and focus on thinking skills. He believed education should be a link between learning and action. Students should have an active role in solving problems occurring in society (1916).

In 1928, Hollingworth wrote, "We often hear about the desirability of producing a greater number of highly intelligent children. But does society use wisely and economically those already produced?" (Klein, 2000, p. 98). These children are suffering from intellectual malnourishment. These children are treated as if their differences and the needs that arise from those differences do not exist. If educators fail to meet the individual needs of students, the result may damage their intellectual capacity, and their emotional and social growth and development may suffer as well (Tolan, 1992). The highly gifted are different. These children can do what others cannot. These children have the intelligence of an adult and the emotions of a child. A gifted child with this combination of intelligence and emotions may certainly encounter certain difficulties, especially if we continue to starve them when they need to be nurtured and nourished. (Kearney, 1996).

By knowing the characteristics of gifted learners, educators are better able to identify and refer students for evaluation. After gifted students have been identified for services, it is essential that educators be knowledgeable of the needs of gifted children in the classroom.

Betts and Neihart (2004, p. 99-106) categorized gifted learners into six different types. The first type is categorized as the *Successful* which contains the vast majority of gifted students, as high as 90% of gifted learners will fall into this category. These

students often characterized as those who will make it on their own regardless of the educational setting. These students often become bored with school and learn to work the system with as little effort as possible. These young adults may underachieve in college and in adulthood as they do not possess the necessary skills, concepts, and attitude to be successful in a society that is forever changing.

The second type of gifted leaner is the *At-Risk* student. Betts and Neihart stated these students are divergently gifted and most likely to go unidentified. The students bring a high degree of creativity, but may appear to be obstinate, tactless, or sarcastic. They are often non-conformist who question and challenge authority. These students are at-risk for dropping out, drug addiction, and/or delinquent behavior if interventions are not made by the time they reach middle school.

The third type is categorized as the *Underground* gifted student is generally identified as a middle school girl. These gifted girls will deny their talents to fit-in with non-gifted peers. They often feel insecure and anxious. Betts and Neihart suggested, although they should not be permitted to abandon all advanced classes, alternatives should be explored to support them during this transition. Challenging the student may lead to alienation from those best able to meet their needs and long-term goals.

The fourth type of gifted learner is the *Dropout.* These are angry gifted students. They believe the system has not met their need and they feel rejected. Betts and Neihart expressed these students often appear depressed or withdrawn, bitter and/or resentful. They may act out and be defensive. Generally, these are high school students, but these angry tendencies can show up in middle school aged students as well. Their self-esteem

and self-worth can be very low, so they require a working relationship with a person they trust.

The fifth type is categorized as the *Double-labeled* gifted students. These students are physically, emotionally or learning disabled. The children, for the most part, go unidentified as gifted. Betts and Neihart stated these students may show signs of stress, frustration, rejection, helplessness, or isolation. These students have generally been ignored as they are perceived to be average or the system focuses on their weakness and fails to engage their strengths.

The last category is the *Autonomous Learner*. These gifted students are independent and self-directed. They have a strong sense of personal power. According to Betts and Neihart, the autonomous learners do not wait for others to facilitate their learning. They are respected by peers and adults and frequently serve in leadership roles within the school and community.

Betts and Neihart supported the use of "typing" of gifted students, and maintain it can be useful tool when educating teachers about the challenges associated with gifted learners. By providing educational programming that creates an acute awareness and understanding of the gifted learner's diverse and unique needs, educators can have a greater impact on student learning and ability to build and develop relationships.

In *Thoughtfully Educating the Gifted*, Sara Lampe (1998b) lists the essential needs for highly gifted learners: First, they need interaction with intellectual peers and interaction with teachers specifically trained and skilled in strategies and techniques appropriate for gifted students. In addition, gifted learners need to be presented with complex ideas and concepts at an accelerated pace. They should have access to

extensive, advanced resources, and interdisciplinary courses of study that focus on complex abstract concepts and mental stimulation. Lastly, they need a safe, non-judgmental environment for risk taking that supports their creative expression and diverse learning styles.

Lampe (1998a) included research conducted by Karen Rogers of the National Research Center on the Gifted and Talented. Rogers prepared a list of appropriate grouping practices for gifted learners. According to Rogers (1991), highly gifted students should spend the majority of their school day with others of similar abilities and interests in their areas of strength. They should be placed in classes with older students who are their intellectual or learning peers and have opportunities to accelerate in their areas of strength while working in cooperative groups with other gifted students.

Misconceptions about Gifted Learners

The NAGC (2013) recorded the ten most prevalent misconceptions of gifted education and the information required to challenge these myths, beginning with the idea that *gifted students don't need help; they'll do fine on their own*. The NAGC asks the question, "Would you send a star athlete to train for the Olympics without a coach?" The truth is gifted students need guidance from well-trained teachers who challenge and support them in order to fully develop their abilities. This is followed by thinking that *teachers challenge all the students, so gifted kids will be fine in the regular classroom.* The NAGC stated the regular classroom teacher may try to challenge all students, but they are frequently unfamiliar with the needs of gifted children and do not know how to best serve them in the classroom.

The third most common misconception is that gifted *students make everyone in the class smarter by providing a role model or a challenge.* According to the NAGC list, the average or below-average students do not look to gifted students in their class as role models. Students are more likely to look to students who work at a similar performance level, which motivates the student to work toward their own ability levels. The fourth myth is that *all children are gifted*. All children have strengths and positive attributes, but not all children are gifted in the educational sense of the word. The NAGC describes the "gifted" label in a school setting, "When compared to others his or her age or grade, a child has an advanced capacity to learn and apply what is learned in one or more subject areas, or in the performing or fine arts" (2013).

The next misconception is the idea that *acceleration placement options are socially harmful for gifted students*. The NAGC indicated academically gifted students often feel bored or out of place with their age peers and naturally gravitate towards older students who are more similar as "intellectual peers." Studies have shown that many students are happier with older students who share their interest than they are with children the same age. With educational funding shortfalls at the forefront of the state legislature, acceleration is an economical means of meeting the academic needs of gifted learners. There is virtually no financial cost associated with the acceleration of a student to the district, parents, or taxpayers. "With acceleration, the child comes out ahead academically and socially, while the district and parents come out ahead financially" (Colangelo, Assouline, & Gross, 2004, p. 43).

The next common myth is that *gifted education programs are elitist*. The NAGC states gifted education programs are meant to help all high-ability students. Gifted

learners are found in all cultures, ethnic backgrounds, and socioeconomic groups. However, many of these students are denied the opportunity to maximize their potential because of the way in which programs and services are funded, and/or due to flawed identification practices. The seventh misconception is that *a student cannot be gifted if he/she is receiving poor grades*. Underachievement, as defined by the NAGC, describes a discrepancy between a student's performance and his actual ability. The roots of this problem differ, based on each child's experiences. Gifted students may become bored or frustrated in an unchallenging classroom situation causing them to lose interest, learn bad study habits, or distrust the school environment. Other students may mask their abilities to try to fit in socially with their same-age peers.

The next myth is that gifted *students are happy, popular, and well-adjusted in school*. The NAGC acknowledges many gifted students flourish in their community and school environment. However, some gifted children differ in terms of their emotional and moral intensity, sensitivity to expectations and feelings, perfectionism and deep concerns about societal problems. Others do not share interests with their classmates, resulting in isolation or being labeled unfavorably as a "nerd."

The ninth myth is one that often causes students to be left out of gifted programming; *a child can't be gifted, if he/she has a disability*. Some gifted students also have learning or other disabilities. The NAGC defines these students as "twice-exceptional." These students often go undetected in regular classrooms because their disability and gifts mask each other, making them appear "average." It is important to focus on the students' abilities and allow them to have challenging curricula in addition to receiving help for their learning disability. And the last of the top ten list

misconception is that *gifted education requires an abundance of resources. A* gifted education program can look overwhelming. However, beginning a program need only require acknowledgement by the district and community to provide gifted students with appropriate curriculum and instruction, and teacher training in identification and gifted education strategies (NAGC, 2013).

In 1982, *Gifted Child Quarterly* (GCQ) presented a special issue relating to the myths associated with gifted education; more recently, GCQ reexamined these myths in the Fall 2009 issue. The closing challenge presented in 1982, and again in 2009, remains the same: "If we allow ourselves to challenge, question, and probe some of gifted education's myths, we can develop new models and approaches that will be practical, cost-efficient, and readily implemented in the schools" (Treffinger, 2009). It is up to gifted education advocates to continue efforts to rebut myths, dispel doubts, and showcase successful models and practices in order to retain and expand programs and services for our gifted and talented youth (NAGC, 2013).

Kaplan reminds us, "Myths are created and continue to exist because they explain phenomena that are not easily understood or appear to validate ambiguous ideas with ambiguous evidence" (2009). All children have the right to an education, but for the gifted child, education is referred to as a privilege. Howard Gardner is quoted as saying, "The number (IQ score), which the little girl may actually be told is likely to exert appreciable effect on her future, influencing the way in which her teachers think of her and determining her eligibility for certain privileges" (Tolan, p. 16). Gardner does not consider the possibility that a child with unusually high intellect might actually require an unusual education. This same IQ score is used in determining the need for special

education service. When an expert in the field of education refers to meeting a child's needs as "certain privileges" it only perpetuates the attitude that such services are extras rather than essentials (Tolan, 1992).

Adding the word *privilege* to the term *gifted*, and the idea that bright people are better off and have received an extra blessing is only increased, and the negative attitude toward these children is strengthened (Tolan, 1992). "Intellect is resented as a form of power or privilege" (Vail, 2001, p. 22). One does not hear that teaching Braille or providing books on tape to a blind child is providing "privileges" unavailable to other students. When a six year old who already reads fluently and understands arithmetic up through multiplication and division is placed, because of age, in a regular first grade classroom where learning to read and to add are the primary focus of the day, all year long, it is not asking for privileges when that child asks for something new to learn (Tolan, 1992). In multiple studies gathered by McCoach and Siegle (2007), pre-service and in-service teachers were asked to take attitude questionnaires that assessed the attitude of the participants toward students that were considered to be "athletic/non-athletic, brilliant/non-brilliant, and studious/non-studious." Both pre-service and in-service teachers gave the "highest ratings to average, non-studious, athletic students" and the "lowest ratings to brilliant, studious, nonathletic students" (Cramond & Martin, 1987).

Many believe new legislation is necessary to provide the educational support programs and services desperately needed for the gifted and talented. Special education should be looked at from both sides. Corn (1999) stated:

> If an 8-year-old is intellectually capable of learning that which a typical 4-year-old can learn, he would be afforded an individualized education. However, if a 4-year-old who is capable of learning what an 8-year-old can learn may or may not receive this type of educational planning with implementation. (p. 20)

The National Research Center on the Gifted and Talented gathered research from a multitude of scholars and made the following two conclusions: Giftedness exists in varying degrees and it can be identified through standardized assessments. As part of their article, Renzulli is quoted, "We should therefore do everything in our power to make appropriate modifications for students who have the ability to cover regular curricular material at advanced rates and levels of understanding" (1978).

Programs Delivery Models & Services for Gifted Learners

Research has shown that it can be important for gifted students to receive adequate academic challenge. Les Vygotsky (1978) believed that cognitive development is shaped through individuals' social interactions with others. Students learn best during active learning experiences which include frequent opportunities for social interactions with intellectual peers. In addition, the academic benefits of ability grouping for gifted students are well documented. Gifted students require contact with peers of equal intellectual ability to prevent motivational, emotional, and social problems. However, funding of education programs for the gifted, especially with respect to full-time ability grouping in special classes have raised constant objections (Robinson, 2006; Vogl & Preckel, 2014).

Throughout the years, a variety of delivery models have been used to serve intellectually advanced learners within a regular classroom (NAGC, 2015). Those models can be broken into the following categories:

- Acceleration: The student is allowed to learn subject matter at a more rapid pace or is promoted by whole grade level.
- Enrichment: The student works through their regular grade level at a normal pace, but their curriculum is supplemented with other or additional activities.
- Differentiation: The teacher provides students with instruction based upon the student's individual needs: readiness level, interests, and preferred mode of learning. A teacher can differentiate in four ways: content, process, product, and learning environment.

To educate intellectually and academically advanced learners outside of the regular classroom, VanTassel-Baska and Reis (2006) identify the three predominant delivery methods used in schools: resource room pull-out, regular classroom push-in and separate classes. Each delivery model has strengths and weaknesses.

The part-time or pull-out model is the most popular at the elementary level. Students are assigned to a class with a curricular focus outside of the regular classroom. The strengths with resource room part-time include opportunities for peer interaction, a focus on in-depth studies and new areas of learning. In addition, it only requires one instructional plan. Weaknesses include limited contact time, which may be anywhere from two to six hours per week, a part-time differentiation of curriculum, and lack of integration with the regular classroom (VanTassel-Baska & Reis, 2006).

In the regular classroom push-in model, strengths and weaknesses mimic those of the part-time model in some ways, and differ significantly in others. The push-in model is used fairly evenly among elementary, middle and high schools. A focus on in-depth study or new area of learning and integration into the regular classroom are a strength, as well as, flexibility for grouping based on instructional need. VanTassel-Baska and Reis (2006) caution that peer interaction is limited to same grade level, there is no opportunity for above grade level grouping, and there is limited contact time. A newer model at the elementary level is cluster grouping in the regular classroom. Gifted students are assigned to one teacher for instruction and should receive a differentiated curriculum for much of the day. The strengths of clustering gifted students together include full-time opportunities for curriculum differentiation, built-in peer groups and flexibility to group based on student need. On the other side, cluster grouping assumes that students are functioning at the same level, students are limited to same grade level peers and multiple instructional plans are required.

According to VanTassel-Baska and Reis, the most successful model of regular push-in gifted is full-time, self-contained gifted programs. These center-based or school-within-a-school programs allow for full-time, differentiated learning. Full-time grouping has many strengths including the differentiation of comprehensive curriculum, intellectual peer groups, and flexible grouping based on several variables such as intellect, interest, and talent. These full-time programs allow the teacher to fully focus on talent development. There are no significant weaknesses found within the full-time group (2006).

The third delivery method described by Van Tassel and Reis (2006) is separate classes. Secondary schools are most likely to use separate classes. These separate classes can accommodate a broad range of gifted learners, both academically and artistically. Some classes, described as honors courses, may lead to Advanced Placement courses, the International Baccalaureate program, and/or dual enrollment in college courses. However, these separate classes allow for uneven development due to highly focused course syllabi. In addition, the subjects maybe offset with non-gifted learners and the curriculum may not be sufficiently differentiated.

In addition to services and programs, one of the most researched and effective curriculum interventions for gifted learners is acceleration. The 2004 national research based report, A Nation Deceived: *How Schools Hold Back America's Brightest Students*, was released and reported on acceleration strategies for advanced learners. This report found that acceleration for gifted students, "has long-term beneficial effects, both academically and socially" (p. 2). This "educational intervention" (p. 5) is a way in which students can move through an educational program at a faster rate than that of their peers. Acceleration includes subject level or whole grade level advancement. It matches level and complexity, along with readiness of the student, to teach the curriculum at a pace which is conducive to new learning.

David Elkind, well-known for his book, *The Hurried Child*, makes this point when he states:

> Promotion of intellectually gifted children is simply another way of attempting to match the curriculum to the child's abilities, not to accelerate those abilities. What promotion does for intellectually gifted children is to make a better fit between

the child's level of development and the curriculum." (Smutny, Veenker & Veenker, 1989, p. 105)

Elkind acknowledges acceleration as a logical way of addressing this issue as one characteristic of gifted students is their ability to reason at levels found in students years older (Bailey, Chaffey, Gross, MacLeod, Merrick, & Targett, 2004).

Many highly gifted students do not fit into the gifted programs that are provided to them; in fact they may not even be identified as gifted. Generally, gifted learners are addressed as an undifferentiated group (Betts & Neihart, 2004). At present, the state of Missouri does not make a distinction between a state qualifying gifted child with an IQ in the range of 125+, or a highly gifted child in the range of 145+, or a profoundly gifted child with an IQ of 160 and above (Gross, 2000). It is estimated that an average of five percent of every classroom will be filled with gifted learners; this is a significant issue in gifted education (Nowikowski, 2011). As universities attempt to encompass all areas of special education, strengths and weaknesses in general education teachers are apparent. This is often frustrating for the students and their parents. Hollingworth (1942) sought to solve this problem by establishing full-time, self-contained programs to make each highly gifted child's educational experience based on his or her social and academic growth.

Apart from cognitive needs, educators should understand the emotional and social needs of gifted learners as well as the cognitive. Highly gifted students are separated emotionally and socially from other individuals because of their extraordinary mental abilities. Brown (1997) stated that just because of their high cognitive abilities, gifted children are not necessarily born leaders. In fact, the chances for a highly gifted student to become a leader, depends on the mental age group of children he or she is leading.

The chances improve if the highly gifted child is with peers of comparable mental age. In addition, highly gifted children often face many problems with adjustment such as with peer relationships, low self-esteem, low risk-taking behaviors, uneven social and emotional development, perfectionism, introversion, high sensitivity, and often, depression. When a highly gifted child is not in synchronicity with peers, he or she will often ask, "What is wrong with me?" Peer relationships suffer even between gifted peers (Brown, 1997).

Low self-esteem occurs from the feelings of being different from everyone else around them, even gifted peers. Perfectionism and society's beliefs that they can do everything, can lead to a low degree of risk-taking. It is critical that gifted students have at least one peer of similar giftedness who share a mutual interest and has a compatible personality. In terms of social interaction, being in a group with intellectually compatible peers benefits children at every ability level (Geiger, 1997; Rogers, 1998).

For the highly gifted child, it is often better to do what you know how to do than to try something new and fail. Discrepancies in development may occur as well when a child needs something more cognitively challenging. High sensitivity often leads highly gifted individuals to be deeply distraught by a move, death of a pet, look of disapproval, a challenging global concern or an interaction with another student which everyone else has forgotten. "There is no heavier burden than great potential" (Geiger, p. 7).

Sternberg (2004) writes, "Will able individuals use their knowledge wisely, or for destructive ends? In a world beset by conflict and turmoil, perhaps these are the most important questions we presently need to address" (p. xxv). Sternberg and Zhang advise the following educational programs for gifted students:

> If we value rapid learning and believe that rapid learners will be in an enhanced position to contribute to our society, then acceleration makes sense. If we believe that what matters is the depth or care students take in probing into what they learn, enrichment will be preferable. If both are prized, we might use a combination. (2004, p. 25-26)

Part-time or pull-out programs provide a completely different curriculum, generally in the form of a separate classroom program of approximately two to six hours per week. Ideal instruction for the highly gifted involves higher level content which matches their achievement levels. Instruction must be fast paced and challenge students to test the limits of their talents. This type of instruction is not typically available in the regular classroom (Lewis, 1997; Feldhusen & Sayler, 1990).

Highly gifted children are often drawn to one another by attributes that they recognize immediately. A child with such levels of ability has difficulty finding peers, even among the gifted. Tolan (1992) stated, "In an ideal world, it wouldn't matter. In an ideal world, each individual would have access to the resources necessary to thrive, to grow and develop in whatever way his or her potential dictated. But this is not an ideal world" (p. 15). It is extremely difficult to meet the social and emotional needs of the highly gifted while providing for the development of their talents at a faster pace than their classmates. Gifted students need to be with others of similar attributes, as well as be accepted by their peers and adults. Lewis (1997) believes the model of special schools for the highly gifted provides for academic progress of students without forgetting they are children, not adult learners.

In a study of gifted programs in the United States conducted by Feldhusen and Sayler (1990), they found the following program design usage: The most commonly used a resource-room or part-time or pull-out program at 41%. The second most popular were labeled special classes at 23%. The special classes were used in junior high and high school, in the form of honor classes for highly able students. The third, enrichment in the regular classroom, described ten percent of school gifted programs.

Feldhusen and Sayler (1990) concluded that the part-time or pull-out program is a model whose time has come and gone and it fails to meets the needs of gifted students. A part-time or pull-out programs fall short of meeting the needs of gifted children. The most effective methods of achievement come in the form of acceleration and special classes. Feldhusen and Sayler reported the results of five separate experimental researches of highly gifted groups. The first of these studies, which was led by R. L. Martinson in 1961, evaluated seventeen different models. Martinson concluded that full-time programming or special schools/classes for gifted students led to superior achievement and found no negative effects on the student's emotional and social adjustment. The faculty hired to teach these special classes were observed and found to be doing an excellent job in teaching gifted students within these classes.

The second study Feldhusen and Sayler (1990) researched was carried out by L. G. Bent in 1969. He studied 366 gifted children grouped in special classes, grades three through eight. Bent found that children in special classes were academically superior to controls group in academic achievement. In addition, these students had a higher knowledge in foreign language, research, writing ability, social awareness, thinking

skills, and self-reliance. When surveyed, both teachers and parents rated these special classes very high.

Feldhusen and Sayler (1990) studied Kulik and Kulik, who found in 1987, that flexible grouping was not shown to be effective when gifted students were heterogeneously grouped with regular education students. Consequently, they found cluster grouping was academically effective in increasing gifted student achievement. In addition, W. B. Barbe's longitudinal study in 1957 of approximately 450 students enrolled in special classes, found that in adulthood, performance and achievement were higher than those for the general population. Interests were broader, social well-adjustment had occurred and activity in community and school affairs was increased.

In the last study, completed by Feldhusen and Sayler (1990) in 1985, schools in Indiana serving highly gifted students in full-time, self-contained classrooms were studied. They found that special classes with well-trained teachers produced high achievement of gifted students' thinking skills, broader interests, and heightened social adjustment and learning. As a result of this research, many schools adopted programs of a similar nature.

According to Kilmis and VanTassel-Baska (2013) for gifted programs to be considered exemplary, the teachers in the program should demonstrate high level competencies. Gifted Education teachers should have an understanding of cognitive and social/emotional characteristics of gifted learners. They should develop challenging, rigorous and appropriate interdisciplinary curriculum that promotes creative, critical and complex thinking and provide differentiated instruction that addresses relevant, real-world problems. Gifted Education teachers should have the ability to communicate and

collaborate effectively with students, staff, and community, and have a passion for learning.

In 1927, Hollingworth wrote, *Who are Gifted Children?*, one of the first books addressing giftedness in our country. Hollingworth was a proponent for full-time, self-contained classes for the highly gifted. In 1942, she was noted as saying, "In the regular elementary classroom, gifted children waste almost half their time and the exceptionally gifted children almost all of their time" (Lovecky, p. 123).

In a report by Delcourt, Cornell, and Goldberg (2007), students in pull-out, separate class, and special programs showed higher achievement than that of gifted students who were not in programs. The report stated that ability grouping for gifted learners is an effective educational practice. In terms of achievement, this report found gifted children who attended special gifted programs performed substantially higher than the gifted students not in programs. The study demonstrated fundamental implications for those committed to improving educational services for gifted learners. Studies reported by the Education Commission of the State (ECS, 2013) show that when gifted children are challenged in special educational situations, they perform better than gifted children who remain in a regular educational situation. The Commission stated that the idea of school reform is that children from all economic and cultural backgrounds should be educated in order to reach their full potential, an idea that has not been offered to America's most academically talented students.

These reports suggest policymakers and educators should consider recommendations as they assess the impact of their programs for gifted students. They should be made aware that "…[gifted] students from within-class grouping arrangements

received the lowest scores in all areas of achievement…when these students were compared with their gifted peers who participated in either special school (full-time), separate class, or pull-out (part-time) programs" (p. 377). Both studies reveal that special educational settings frequently require additional funds and, increasingly, states are reducing or eliminating the amount of state funding for gifted programs and provisions for the gifted are being eliminated in schools across the United States. However, this situation is not new. In 1835, in his essay, *Democracy in America*, Alexis de Tocqueville wrote, "In America a certain common level in human knowledge has been established. All minds have approached it; some by being raised to it, others by being lowered to it" (ECS, 2013).

Summary

Chapter two provided historical background in developing a definition for gifted including the characteristics of, and misconceptions about gifted learners. Researchers in the field of gifted education have developed various definitions for gifted, but most agree that giftedness does not manifest itself in one identifiable form, but can range from leadership and analytical capability to giftedness in fine arts. Researchers have also identified a variety of unique characteristics of gifted learners that further indicate the need for educational settings geared toward these students. Despite these findings, the literature indicates that the U.S. does not provide appropriate educational experiences for gifted students. Further, many believe a separate program for gifted learners is a privilege, not a necessity. Chapter three describes the research methodology of this mixed design case study. The survey instrument consisted of a Likert-type rating scale and a free response survey. The scale and survey were designed to assess the gifted

learner's engagement in the full-time gifted setting. Chapter four contains the analysis of the data. Chapter five includes the conclusion and recommendations.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

Chapter three describes the methodology used for this study, including research questions, study design, and rationale for using mixed design case study. Sampling strategies and data collection processes are also defined. The intent of this study was to determine if the investment in gifted programs has influenced students by assessing their perceptions engagement in learning in the areas of challenge, choice, interest and enjoyment. This study used a Likert-type scale and free response surveys to gain feedback from the subjects.

This information was used to determine student perceptions of the level of student engagement in the areas of challenge, choice, interest and enjoyment of gifted students in a part-time program verses that of highly gifted students in a full-time program. Data was also used to compare perceptions of engagement and investment of those students in the part-time or pull-out program with those in the full-time program.

Design and Methodology

A case study design was used for this directed study due to a lack of comparable data. While the NACG (2013) lists several full-time gifted programs in the Midwest, the criterion for each program differs considerably. For example, one school district's full-time gifted program serves only thirteen students in grades one through eight. Due to the lack of definition and the diversity of among full-time programs – it was decided that a case study approach was appropriate in this instance.

A mixed design was used for this case study, which included research questions, study design, sampling strategies and the data collection processes. According to Velez (2007) qualitative and quantitative approaches may both be used within the same line of inquiry and both may be used to permit triangulation to gain a closer approximation to a true perception. A quantitative approach alone would provide data but the reasoning behind the data would be lacking. Conversely, a qualitative approach would provide subjective data, relying only on personal perceptions and individual interpretation. The use of mixed design, gathered in the form of a survey followed by open-ended questions, provide triangulation of the data and a deeper look into the perceptions of those involved in the study (Gall, Gall, and Borg, 2003, Sechrest and Sidani, 1995). Case studies have been viewed as a useful tool for the exploratory stage of research and give a basis for the data collected through the structured tools.

The mixed design approach was appropriate to the purpose of the study, that of collecting data to explore student perceptions. Quantitative data were included as a means to give a numerical value to the levels of engagement. Information was collected through participatory open-ended questions and qualitative analysis was analyzed using a structured approach (Rowley, 2007; Abeyasekera, 2010).

The purpose of this mixed-methods case study was to determine student engagement as determined by enjoyment, interest, challenge, and choice. The study was conducted on two gifted programs offered at a large Midwest school district of approximately 25,000 students.

Participants in this study consisted of 208 middle school students enrolled in the part-time or full-time gifted programs within a large public school district, located in the

Midwest. Students participating in the part-time or pull-out program come from nine middle schools and one intermediate school. The full-time program is designed to identify and provide educational services for highly gifted students in grades six through eight. Students who are eligible to receive gifted services and reside within the district may apply to the program. The qualification process for all gifted services involves a referral form and two additional assessments, including an IQ test, and a quantitative verbal assessment or an abstract thinking assessment. All students participating in gifted programming have met these minimum criteria. In addition, the qualification process for the full-time program consists of a matrix of assessment scores based on, but not limited to, an intelligence test, a general ability test including verbal and quantitative section, a nonverbal abilities test, and teacher recommendations.

The study focused on students' perceptions of learner engagement within the gifted education program in which they were enrolled. Student surveys were administered to gather data. The first portion of the survey gathered quantitative data and included statements about engagement. Students responded using a Likert scale with answers ranging from "Always" to "Never." Survey statements included student perception of the interest, relevance, and challenge of class activities and of the materials utilized in classes. They also responded indicating how much choice they believed they had in terms of selecting their own projects, selecting their own materials, and working individually or with partners. Finally they rated their anticipation and level of enjoyment in these classes. The survey also included a five item open-answer questionnaire relating to the students' perceptions of their academic experience. The questions were designed to give students the opportunity to expand and add more depth to the Likert survey

questions. The survey was chosen in order to gain a deeper understanding of student engagement as it relates to challenge, choice, interest and enjoyment.

This study will enable a better understanding of the impact of the gifted program and the students it serves. Results will be shared with educators through workshops geared toward gifted education. The researcher gathered data in an effort further the body of research on gifted education and gifted programs.

Research Questions

The following questions drive the purpose and content of the study:

1. What are student perceptions of learner engagement and the manner in which their needs are met in the areas of interest, challenge, choice and enjoyment?
2. What differences in perception of learner engagement exist between students in a part-time program and those in a full-time program?

Participants/Selection/Sampling

The part-time gifted program serves students one day a week in a learning center separate from their regular school. The students are supported by certified gifted teachers for academic and affective education. The center serves 36 elementary schools, one intermediate school, and nine middle schools during the school week. In addition to a district-wide screening of all second grade students, a parent, guardian and/or teacher may fill out a referral form on a student at any time for the testing process to begin. The student is given an IQ assessment to be administered by a trained counselor within the district. Students who have a qualifying IQ score may enroll in the part-time program to receive gifted services. Students participate one day a week in two grade-level activities: Thinking Skills and Affective Education and one multi-grade level Major Unit of choice.

The part-time program utilizes one full-time administrator and a counselor to support students' individual needs, as well as the social and emotional development of gifted students.

The full-time gifted program serves students in grades six through eight residing within the district's attendance area. The program provides academic, social and emotional support to middle school gifted students on a daily basis as they transition from sixth through eighth grade within a high school setting. The program individualizes course offerings based on student readiness and offers academic acceleration and a wide range of courses available at both the high school and middle school level. Students are supported by a faculty certified in gifted education as well as subject matter. In addition, students in the program have access to a counselor and additional administrative support to address their needs and to support the social and emotional development.

In order to apply to the full-time middle school program, a fifth grade student must first qualify for gifted services within the district. The qualification process for the full-time program consists of a matrix of assessment scores based on:

- Wechsler Intelligence Scale for Children (WISC IV)
- School and College Ability Test (SCAT)
- Naglieri Nonverbal Abilities Test (NNAT)
- Classroom teacher and gifted education teacher recommendations

The matrix scores are added together and the top 40 to 45 students are invited to participate in the full-time program. The prevailing perception is that those in the full-time program are at a much higher level of cognitive ability than those in the part-time program, but the reality is that while the testing process is more complex for the full-time

program, the students in both programs have high cognitive ability (fig. 1). Due to the age of the students, and the environment of a program that resides within a high school setting, students in the full-time program are more closely scrutinized for their ability to successfully maintain, both academically and socially, away from their home school.

Figure 1: *Demographics of middle school students participating in the gifted programs*

Demographic	Group	N	AVG/Sum	Percentile/ Percentage
IQ Average	Part-time	137	135.4	99.2
	Full-time	126	139.6	99.5
Free/Reduced	Part-time	137	42	30.7%
Lunch Students	Full-time	126	22	17.5%
Students Identified	Part-time	137	14	10.2%
Minority	Full-time	126	19	15.1%

Although both groups are identified as gifted and qualify for gifted education services within the district, there are some differences between the participants. Figure 1 shows that on average, students enrolled in the full-time program have a slightly higher IQ than the students enrolled in the part-time program. In addition, almost twice as many the part-time students qualify for free and/or reduced lunch as the full-time students. However, there are a greater number of students who identify themselves as minority status within the full-time program.

Prior to the administration of the survey, informational letters were sent home to the parents of the participating middle school students. The assent letter detailed the survey instrument and gave parents the option of requesting their child not participate in the survey. The participants fully understood the nature of the study and that participation was voluntary. There were no adverse consequences for not participating in the survey. Confidentiality of recovered data was maintained at all times, and identification of participants was not available during or after the study (APA, 2010).

No other faculty or staff had access to the surveys before, during, or after the students completed them.

The survey was of minimal risk to participants, and the probability of harm or discomfort anticipated in the research was not greater than any ordinarily encountered in daily life (APA, 2010). The surveys were divided by grade level: six, seven and eight. All surveys were distributed and collected by the researcher. The researcher obtained permission to conduct research through the Southwest Baptist University (SBU) Research Review Board (RRB).

Instrumentation

The survey instrument used to gather data was entitled, *My Class Activities* (Gentry & Gable, 2000). The survey contains 31 questions and provides quantitative data on student levels of engagement in the areas of challenge, choice, interest and enjoyment. Each area contained between seven to nine survey questions. Students responded using a Likert scale with answers ranging from "Always" to "Never." The survey also included a five item open-ended questionnaire intended to deepen understanding of the survey items. The surveys were administered by the researcher to all middle school students participating in part-time or full-time gifted programs within the school district.

Validity

Validity of the *My Class Activities* (MCA) survey instrument was evaluated by Pereira, Peters, and Gentry (2010). The *MCA* is an instrument designed to assess the frequency through which student identify four motivational components essential in programs for high ability learners: interest, challenge, choice and enjoyment. The evaluation covered four different models using confirmatory factor analyses. The *MCA*

was normed using a national sample size of 3,744 elementary and middle school students. Using a sample study of 826 students in grades three through eight, the evaluators concluded the *MCA* can provide valid data and is a viable option for gifted program evaluation (Pereira, Peters & Gentry, 2010).

Data Analysis

Data from the survey instrument was analyzed quantitatively. This analysis included measures of central tendency. Survey answers were compiled and numbered 1 through 208. The data was disaggregated based on questions relating to academic engagement. The survey questions were broken down into four areas: enjoyment, interest, challenge, and choice. Questions relating to choice were further delineated between students desire to work alone or in groups and their freedom to choose the projects, materials, and audience for their product. Data was used to compare student perceptions of the level of student engagement in the areas of challenge, choice, interest and enjoyment between gifted students in the part-time program and those in the full-time program. Data collection and analysis occurred simultaneously and continued throughout this part of the study (Glaser & Strauss, 1967). In addition, data were viewed through various demographic lenses.

Following survey and open-ended questions, data were transcribed by the researcher and coded in an analytical procedure resulting in deductively derived explanatory themes. Categories were derived from the format of the surveys and provided a framework for analyzing the data into themes. Questions were analyzed according to perspectives held by subjects (Bogdan & Biklen, 1998). Coding processes included identifying concepts embedded within the data, organizing discrete concepts

into categories, defining the properties and dimensions of categories and linking them according to their properties and dimensions into broad, explanatory themes.

The open-ended surveys were handwritten by students in pencil on paper. Data from the surveys were highlighted and then organized by question into the following categories: Terms that indicated a positive feeling; no comment or terms that indicated a neutral feeling; or terms that indicated a negative feeling. The headings estimate the intent of the students, and while it is difficult to quantify individual responses, there are terms that emerged to guide the process, such as "very" "somewhat" "more" "fairly" "good" "struggling" "difficulty" "not." Each of the headings describes a criteria for engagement: interest, challenge, choice and enjoyment. In addition, student examples and/or student quotes from each category were transposed onto an electronic file. Questions were handled as units of data and multiple codes were used simultaneously. Data comparisons were made between groups of respondents.

Summary

Chapter three describes the mixed design case study. The survey instrument consists of a Likert-type rating scale survey and an open-ended questionnaire. The scale and open-ended questions were designed to assess the gifted learner's engagement in the areas of challenge, choice, interest and enjoyment in the part-time and full-time gifted setting.

Data analysis was conducted on the mixed design case study. Quantitative data was collected through the survey and analyzed; qualitative data was collected through open-ended questions. Themes that emerged from the qualitative data provided an in-

depth understanding of the quantitative data for this case study. Chapter four contains the analysis of the data. Chapter five includes the conclusion and recommendations.

CHAPTER FOUR

ANALYSIS OF THE DATA

Introduction

Chapter four presents the results of a mixed-methods case study determining student engagement as determined by enjoyment, interest, challenge, and choice. The study was conducted on the gifted programs offered at a large public school district located in the Midwest which serves approximately 25,000 students. The survey participants comprised of 208 middle school students enrolled in the district's gifted program, either part-time or full-time. The study focused on students' perceptions of learner engagement within the gifted education program in which they were enrolled.

The following were the primary questions guiding this study on the effects of the districts' gifted programs on its participants:

1. What are student perceptions of learner engagement and the manner in which their needs are met in the areas of interest, challenge, choice and enjoyment?
2. What differences in perception of learner engagement exist between students in a part-time program and those in a full-time program?

Surveys were administered to students in the gifted program in order to gather data about their perceptions of the program in terms of learner engagement. The first portion of the survey gathered quantitative data and included statements about engagement. Students responded to the *My Class Activities* (Gentry & Gable, 2000), which uses a Likert scale with answers ranging from "Always" to "Never." Survey statements included students' perception of the interest, relevance, and challenge of class activities and of the materials utilized in classes. They also responded by indicating how

much choice they believed they had in terms of selecting their own projects, selecting their own materials, and working individually or with partners. Finally they rated their anticipation and level of enjoyment in these classes.

Quantitative Data

Table 1: *All part-time and full-time student response averages*

Descriptive Statistics	N	Range	Mean	Standard Deviation
Interest	208	26	22.94	4.971
Challenge	208	25	23.16	4.733
Choice	208	22	16.10	4.186
Enjoyment	208	253	20.76	5.615
Valid N	208			

The descriptive statistics of engagement included interest, challenge, choice and enjoyment are shown in Table 1. The responses consisted of 100 part-time students, and 108 full-time students. Each engagement area contained between seven and nine questions. The minimum and maximum number of responses was included along with the mean for all 208 students participating in both programs. A standard deviation of five percent was used to determine significance.

In the areas of interest and challenge ranked the highest for both part-time and full-time students, closely followed by the area of enjoyment, whereas, the area of choice ranked significantly lower within both groups. Both the full-time and part-time programs offer a limited amount of subjects for students to choose. The part-time program offers three choices for students to choose from each semester. The full-time program offers minimal choices within the elective courses: art, band, orchestra, choir, speech/debate. These elective classes are determined by the high school.

Table 2: *Part-time verses full-time student response averages*

Area of Engagement	Group	N	Mean	Standard Deviation	t-test for Equality of Means		Sig. (2-tailed)
					t	df	
Interest	Part-time Full-time	100 108	23.39 22.52	5.257 4.701	1.262	206.000	.208
Challenge	Part-time Full-time	100 108	23.51 22.83	4.848 4.645	1.028	206.000	.305
Choice	Part-time Full-time	100 108	16.95 15.31	3.748 4.444	2.873	206.000	.004
Enjoyment	Part-time Full-time	100 108	22.55 19.11	4.975 5.713	4.613	206.000	.000

The test for significance shown in Table 2, revealed no true differences between the part-time and full-time groups in interest and challenge: Part-time (M = 23.39, SD = 5.257) and full-time (M = 22.52, SD = 4.701) did not differ significantly on levels of interest, t (1.262), p = n.s. Part-time (M = 23.51, SD = 4.848) and full-time (M = 22.83, SD = 4.645) did not differ significantly on levels of interest, t (1.028), p = n.s.

In the areas of choice and enjoyment, the test revealed statistically significant differences between the part-time and full-time groups: Part-time (M = 16.95, SD = 3.748) reported significantly higher levels of choice than the full-time (M = 15.31, SD = 4.444), t (2.873), $p < .05$. Part-time (M = 22.55, SD = 4.975) reported significantly higher levels of enjoyment than the full-time (M = 19.11, SD = 5.713), t (4.613), $p < .05$.

Based on survey results, part-time students were significantly more favorable than full-time students in the areas of choice and enjoyment. Part-time students expressed greater satisfaction with being able to have choices in their educational experiences than full-time students. Additionally, this same pattern held true for part-time students in the area of enjoyment.

Table 3: *Grade level response averages for Interest*

Grade	N	Mean	Standard Deviation
6	87	24.33	4.209
7	61	20.89	5.462
8	60	23.00	4.871
Total	208	22.94	4.983

The test for significance shown in Table 3, revealed no true differences between grades six and eight in interest: Grade six (M = 24.33, SD = 4.209) and grade eight (M = 23.00, SD = 4.871) did not differ significantly on levels of interest, p = n.s.

Table 3A: *Analysis of Variance between groups and within groups for Interest*

Interest	Sum of Squares	df	Mean Square	F
Between Groups	426.657	2	213.329	9.278
Within Groups	4713.530	205	22.993	
Total	5140.187	207		

The one-way ANOVA test shown in Table 3A, revealed statistically significant differences in the area of interest between grades, $F(2, 205) = 9.278$, $p = \leq .001$. Tukey's HSD test was used to determine the differences. The main effect for interest was found between grades six and eight, grade six (M = 24.33, SD = 4.209) and grade eight (M = 23.00, SD = 4.871). Grade six reported significantly higher levels of interest than grade eight. The main effect for interest was found between grade six (M = 24.33, SD = 4.209) and grade seven (M = 20.89, SD = 5.462). Grade six reported significantly higher levels of interest than grade eight.

Table 4: *Grade level response averages for Challenge*

Grade	N	Mean	Standard Deviation
6	87	24.55	4.060
7	61	21.25	4.908
8	60	23.08	4.879
Total	208	23.16	4.745

The test for significance shown in Table 4, revealed no true differences between grades six and eight in challenge: Grade six (M = 24.55, SD = 4.060) and grade eight (M = 23.08, SD = 4.879) did not differ significantly on levels of challenge, p = n.s.

Table 4A: *Analysis of Variance between groups and within groups for Challenge*

Challenge	Sum of Squares	df	Mean Square	F
Between Groups	392.352	2	196.176	9.424
Within Groups	4267.412	205	20.817	
Total	4659.764	207		

The one-way ANOVA test shown in Table 4A, revealed statistically significant differences in the area of challenge, between grades, $F(2, 205) = 9.424$, $p = \leq .001$. Tukey's HSD test was used to determine the differences. The main effect for challenge was found between grade six (M = 24.55, SD = 4.060) and grade seven (M = 21.25, SD = 4.908). Grade six reported significantly higher levels of challenge than grade seven. The main effect for challenge was found between grade seven (M = 21.25, SD = 4.908) and grade eight (M = 23.08, SD = 4.879). Grades six and eight reported significantly higher levels of challenge than grade seven.

Table 5: *Grade level response averages for Choice*

Grade	N	Mean	Standard Deviation
6	87	17.09	3.611
7	61	15.62	4.386
8	60	15.13	4.534
Total	208	16.10	4.196

The test for significance shown in Table 5, revealed no true differences between grades seven and eight in choice: Grade seven (M = 15.62, SD = 4.386) and grade eight (M = 15.13, SD = 4.534) did not differ significantly on levels of choice, p = n.s.

Table 5A: *Analysis of Variance between groups and within groups for Choice*

Choice	Sum of Squares	df	Mean Square	F
Between Groups	155.551	2	77.776	4.570
Within Groups	34.88.526	205	17.017	
Total	3644.077	207		

The one-way ANOVA test shown in Table 5A, revealed statistically significant differences in the area of choice, between grades, $F(2, 205) = 4.570$, $p = \leq .05$. Tukey's HSD test was used to determine the differences. The main effect for choice was found between grade six (M = 17.09, SD = 3.611) and grade seven (M = 15.62, SD = 4.386). Grade six reported significantly higher levels of choice than grade seven. The main effect for choice was found between grade six (M = 17.09, SD = 3.611) and grade eight (M = 15.13, SD = 4.4.534). Grades six reported significantly higher levels of choice than grade seven and grade eight.

Table 6: *Grade level response averages for Enjoyment*

Grade	N	Mean	Standard Deviation
6	87	23.10	4.313
7	61	18.91	5.957
8	60	19.87	5.730
Total	208	20.76	5.628

The test for significance shown in Table 6, revealed no true differences between grades seven and eight in enjoyment: Grade seven (M = 18.91, SD = 5.957) and grade eight (M = 19.87, SD = 5.730) did not differ significantly on levels of enjoyment, p = n.s.

Table 6A*: Analysis of Variance between groups and within groups for Enjoyment*

Enjoyment	Sum of Squares	df	Mean Square	F
Between Groups	891.372	2	445.686	16.125
Within Groups	5666.084	205	27.639	
Total	6557.457	207		

The one-way ANOVA test shown in Table 6A, revealed statistically significant differences in the area of enjoyment, between grades, $F(2, 205) = 16.125$, $p = \leq .001$. Tukey's HSD test was used to determine the differences. The main effect for enjoyment was found between grade six (M = 23.10, SD = 4.313) and grade seven (M = 18.91, SD = 5.957). Grade six reported significantly higher levels of enjoyment than grade seven. The main effect for enjoyment was found between grade six (M = 23.10, SD = 4.313) and grade eight (M = 19.87, SD = 5.730). Grade six reported significantly higher levels of enjoyment than grade seven and grade eight.

Table 7: *Grade 7 part-time verses full-time Enjoyment*

Area of Engagement	Group	N	Mean	Standard Deviation
Enjoyment	Part-time	27	21.15	5.260
	Full-time	34	16.06	5.559

In grade seven, in the area of enjoyment, the test shown in Table 7, revealed statistically significant differences between the part-time and full-time groups: Part-time (M = 21.15, SD = 5.260) reported significantly higher levels of enjoyment than the full-time (M = 16.06, SD = 5.559), t (3.636), $p < .001$.

The survey results indicated the students in grade seven enrolled in the part-time program experienced significantly more enjoyment than that of the grade seven students enrolled in the full-time program. The part-time students responded more favorably than the full-time students on six of the seven survey questions pertaining specifically to enjoyment. Part-time student enjoyment scores averaged between 1.93 and 3.22, whereas the full-time enjoyment scores averaged between 1.68 and 2.53. The most significant difference found in survey question number 31: *I like the projects I work on in class*. Part-time students gave this question an average score of 2.89, while the full-time students gave it at an average score of 1.47.

Table 8: *Grade 8 part-time verses full-time Choice and Enjoyment*

Area of Engagement	Group	N	Mean	Standard Deviation
Choice	Part-time	25	18.12	3.395
	Full-time	35	13.00	4.037
Enjoyment	Part-time	25	22.64	4.966
	Full-time	35	17.89	5.465

In grade eight, the test shown in Table 8, revealed statistically significant differences in the areas of choice and enjoyment, between the part-time and full-time groups: Part-time (M = 18.12, SD = 3.395) reported significantly higher levels of choice than the full-time (M = 13.00, SD = 4.037), t (5.167), $p < .05$. Part-time (M = 22.64, SD = 4.966) reported significantly higher levels of enjoyment than the full-time (M = 17.89, SD = 5.465), t (3.449), $p < .001$.

Part-time students in grade eight expressed greater satisfaction with being able to have choices in their educational experiences than the full-time students expressed. The survey results suggested the students in grade eight enrolled in the part-time program experienced significantly more choice than that of the grade eight students enrolled in the full-time program.

Overall, the part-time students responded more favorably than the full-time students on each of the seven survey questions pertaining specifically to choice. Part-time student choice scores averaged between 3.12 and 3.44, whereas the full-time choice scores averaged between 1.14 and 2.34. The most significant difference found in survey question number 24: *I can choose an audience for my product*. Part-time students gave this question an average score of 3.16, while the full-time students gave it at an average score of 1.14. The options for part-time students participating in gifted programs influenced their level of satisfaction to a greater extent than was experienced for the full-time students.

Additionally, this same pattern held true for part-time grade eight students in the area of enjoyment. The survey indicated the students in grade eight enrolled in the part-time program experienced significantly more enjoyment than that of the grade eight

students enrolled in the full-time program. The part-time students responded more favorably than the full-time students on four of the seven survey questions pertaining specifically to enjoyment.

The survey also included a five item open-answer questionnaire relating to the students' perceptions of their academic experience. The questions were designed to give students the opportunity to expand and add more depth to the Likert survey questions and in order to gain a deeper understanding of student engagement as it relates to challenge, choice, interest and enjoyment. The results from the open-ended statements were organized according to general impressions and the individual categories of engagement: interest, challenge, choice, enjoyment, with an overview and comparison of full-time and part-time, as well as identification of grade levels.

Qualitative Data

Within each area of engagement, students answered open-ended questions. Statements from students were directly quoted without editing, regardless of grammar or spelling errors. In one statement, the intent of the student was not understood, and a bracket was placed around one added contextual word. The student survey questions and responses were compiled and compared between the two groups: Part-time (PT) and full-time (FT) students. The students' responses in this chapter are followed by the number assigned to the anonymous survey sheet (1-208), the program they are enrolled in (PT or FT), and their grade level (6, 7 or 8).

Two tables are provided to provide clarity to the 832 responses that were gathered. Table 9 provides a snapshot of the general impression received from the student-created statements. The headings roughly estimate the intent of the students, and

while it is difficult to quantify individual responses, there are terms that emerged to guide the process, such as “very” “somewhat” “fairly” “good” “struggling” “difficulty” “not” within each of the headings that describe criteria for engagement, interest, challenge, choice and enjoyment. Table 10 offers comparisons between the part-time and full-time programs with grade level identification.

Table 9: *Open-ended student survey responses*

Engagement	**N**	**Terms that indicated a positive feeling**		**No comment or terms that indicated a neutral feeling**		**Terms that indicated a negative feeling**	
		#	%	#	%	#	%
Interest	208	115	55.3	53	25.5	40	19.2
Challenge	208	152	73.0	36	17.4	20	9.6
Choice	208	97	46.6	71	34.2	40	19.2
Enjoyment	208	140	67.3	66	31.7	2	1.0

Based on the open-ended survey results from all students, the qualitative data shown in Table 9, supported the quantitative data. Overall, students were in agreement with regards to the engagement area of challenge and found it most favorable at 73 percent. Both part-time and full-time groups reported high favorability in the area of enjoyment. In both the qualitative and quantitative survey results, the engagement area of choice came in significantly lower at 46.6 percent.

Table 10: *Part-time (PT) compared to full-time (FT) open-ended survey responses*

Area of Engagement	Group	N	Terms that indicated a positive feeling		No comment or terms that indicated a neutral feeling		Terms that indicated a negative feeling	
			#	%	#	%	#	%
Interest	PT	100	74	76.0	8	8.0	16	16.0
	FT	108	39	36.1	45	41.7	24	22.2
Challenge	PT	100	80	80.0	8	8.0	12	12.0
	FT	108	72	66.7	28	26.0	8	7.3
Choice	PT	100	56	56.0	35	35.0	9	9.0
	FT	108	40	37.0	37	34.2	31	28.8
Enjoyment	PT	100	68	68.0	32	32.0	0	0.0
	FT	108	72	66.7	35	32.4	2	.9

Within each of the area of engagement, challenge, interest, choice, and enjoyment, similarities and differences emerged amongst the programs. In comparison of part-time students with full-time students shown in Table 10, the qualitative data supported the quantitative data as part-time students reported higher levels of agreement in each engagement area. Both groups were in agreement with regards to the engagement area of challenge and found it most favorable. Both part-time and full-time groups reported high percentages for the area of enjoyment. The open-ended results showed the most significant difference between the groups within the areas of choice and interest. The part-time students found the engagement areas of interest and choice far more favorable than full-time students.

While all three grade levels were in agreement and rated enjoyment relatively high across the board, grade six students were significantly higher than grade seven in the areas of interest, challenge and choice. Grade seven shared some of the most negative statements, and although grade eight expressed some negative feelings on the

survey, they also shared some meaningful insight to their perceptions of the programs as a whole.

Within grade seven, survey responses between the part-time and full-time programs differed to a greater degree. While the engagement area of enjoyment was the most favorable for both groups, the part-time students reported significantly higher levels of agreement than the full-time students in challenge and interest. However, agreement within the engagement area of choice showed a substantial difference between the groups.

In comparison of the part-time and full-time students in grade eight, the qualitative data supported the quantitative date. The part-time students reported higher levels of agreement in each engagement area. Both groups found the areas of challenge the most favorable. The open-ended results showed the most substantial difference between the groups within the area of interest. The part-time students found the engagement area of interest far more favorable than the full-time students.

In comparison of grade levels, the results of the qualitative data reflect that of the quantitative data in that grade six students feel more favorable towards all areas of engagement than that of the grade seven and more favorable towards most of the areas of engagement than that of the grade eight students. While all three grade levels were in agreement and rated enjoyment relatively high across the board, grade six students were significantly higher than grade seven in the areas of interest, challenge and choice.

To further support the qualitative findings of the survey, the statement written by the students were gathered and analyzed. Within each of the area of engagement,

challenge, interest, choice, and enjoyment, similarities and differences emerged amongst the programs and grade levels.

Interest: How does the schoolwork you are assigned in class relate to your <u>interests</u>?

Beginning with the area of interest, when part-time students were compared with full-time students, there was a substantial difference. Part-time student commented more positively at a rate of two to one. The part-time students used a variety of words to describe their relationship to interest, "enjoy" "related" "choose" "create" "freedom." The following statements were made about the student's coursework: "The schoolwork I am assigned often relates to my interest here at WINGS" (Participant 46, PT6). "I often enjoy and relate to the schoolwork I am doing." (Participant 42, PT6). "My schoolwork relates to my interests because I choose my major unit class and it has to do with my interests." (Participant 31, PT6). "In our major unit [class], we get to create whatever we want with certain guidelines, so I can make things my own" (Participant 54, PT7).

The part-time students also discussed their teachers and specific classes that were of interest, "The teachers let us choose what we want based on our interest" (Participant 5, PT6). "I usually have the freedom to make things fit me… it is usually something that will interest me for the most part" (Participant 49, PT7). "Goal setting makes me think about my future, and in the Utopia project, I think about my perfect world" (Participant 85, PT8).

Although the full-time students included positive statements about the area of interest, there were half as many written comments as the part-time students, "My classes give me strong and new ideas on topics which interest me" (Participant 104, FT6). "Schoolwork is usually something creative, something normal schools will never think to

do, so they are always the most interesting" (Participant 134, FT6). "A lot of times, I wouldn't know I had an interest until I took the class on it" (Participant 201, FT8). On the other side, however, some full-time students included statements with a negative tone: "Scholars isn't as much on the gifted side. A matter of fact, it's essentially just accelerated classes" (Participant 138, FT6). "Schoolwork is usually not related to my interests…" (Participant 141, FT7).

In comparison of grade levels, grades six and eight had the most to say about the area of interest. "The schoolwork I am assigned often relates to my interest because we typically have choice sheets to choose during our day's learning here at WINGS" (Participant 46, PT6). "The work we do widens my interest and challenges me, which is fun" (Participant 98, PT8). "The work I'm assigned relates to my interest because the classes I choose fit my interest and involve things and techniques I find personally engaging" (Participant 88, PT8). Although the positive statements far outnumbered the negative, grade seven students shared the most negative comments related to interest, "It never does, the students get no input in the classrooms over what we do" (Participant 152, FT7).

Challenge: How <u>challenging</u> would you say your schoolwork usually is? Can you give an example?

The second engagement area listed on the survey was challenge. One difference between part-time (PT) and full-time (FT) program was the sense of whether the challenge was appropriate, underwhelming, or overwhelming. There was some evidence that the part-time students felt like the challenge was either not adequate or just right, supported by the following quotes: "…it's all about facts, opinions, and what you want to

get across and in order to get across thing effectively you have to think, which sadly could be required more" (Participant 48, PT6). "…just challenging enough to make us think hard but not aggravate us" (Participant 68, PT7) and "...challenging, but not out of my ability" (Participant 49, PT7).

On the other hand, some of the responses to the challenge question from full-time students showed some levels of stress as shown in the following comments. "My school work is not usually challenging but it is stressful. I get a lot of work that is not that challenging, but requires a lot of time" (Participant 141, FT7). In some cases, the language changed, with "difficult" replacing the word "challenging." "My schoolwork is generally very difficult… the Humanities project we work on is based entirely in metaphors. This challenges me to think deeper" (Participant185, FT8).

Grades six and eight wrote the most positive comments about the degree of challenges they experience within the gifted program. "I am never unhappy with the curriculum" (Participant 42, PT6). "I enjoy learning about history and logic at school. I find my major unit [class] to be both fun and challenging. I also enjoy learning stress management skills as they really help me" (Participant 31, PT6). "I enjoy learning about physics and science classes, but I wish these classes had more chances for self-discovery" (Participant 175, FT8). While grade seven relayed a different perspective in the area of challenge, "Not really challenging, just an overwhelming amount of homework – a lot due at once" (Participant 149, FT7).

Students listed examples of classes or topics they found most challenging. Part-time students in grades six, seven, eight found the most challenging curriculum in the following classes: LOOP-IT, School of Rock, Utopia, and Robotics. Several students

found the Thinking Skills curriculum, which included Mind Benders and debate, to be very challenging. Full-time students found the math curriculum (pre-algebra and algebra) to be the most challenging. In addition, several students commented on the water park project and the mind maps created in humanities class. One additional example listed numerous times under challenge was the amount of actual work required within the full-time program.

Choice: What <u>choices</u> do you have in the classes you take? What <u>choices</u> do you have in what you learn and the projects you do in class?

In the third engagement area of choice, the least favored by both groups, there were some slight differences between part-time and full-time students. There was evidence that while the part-time students believed they did have some choice in the classes/major units they could choose, it was not without limitations. "I can choose my major unit… I am often given a broad outline of what to do in a project, but I can choose who to present the project" (Participant 31, PT6). "I have three or more choices for my major unit. I usually have a set project, but I have tons of freedom inside of it." (Participant 49, PT7). Many of the full-time student responses displayed a stronger inclination to limits, statements centered on specific classes: "I get very little choice in some classes and more in others" (Participant 132, FT6). "In algebra, I can usually pick if I feel like I am capable of the more difficult problems" (Participant 134, FT6). "I get to choose my math classes based on ability" (Participant 159, FT7).

However, there was strong evidence that the full-time students do not feel they are given any choices within the learning system at large: "Our school system does not promote choice" (Participant 206, FT8). "I have very few choices in what I learn and

what assignments I do" (Participant 140, FT7). "There is no choice on what you learn and rarely a choice on the projects that you do" (Participant 175, FT8).

Students in all grades had responses across the board in the least favored area of engagement, "Some of the choices that I have in my classes are what to work with, where to work, and what to work on. I have the choice to learn something new and challenging (Participant 30, PT6). "We can choose what major unit we want, which decides what we'll learn about" (Participant 85, PT8). "We can decide how/where we are going with our own ideas" (Participant 81, PT8). "…Hands-on group projects with people of my choice" (Participant 154, FT7). Students in grade seven made some of the most negative statements, "I choose what classes I take… I have absolutely no choice in what I learn" (Participant 173, FT7).

Enjoy: Can you give an example of some things you <u>enjoy</u> learning about and doing at school?

In the final and highly favorable engagement area of both groups, enjoyment, part-time students wrote a plethora of positive statements about their experiences in the program. There were no comments that could be categorized as negative.

The overarching theme for the part-time students was enjoyment in learning about things that are "different" from their regular classroom instruction. The evidence of that is in their comments, "At WINGS we learn new things about ourselves and use them to our advantage later in life" (Participant 67, PT7). "I enjoy learning about things that aren't in my homeschool, such as advertising" (Participant 71, PT7). "I enjoy learning about things now that I wouldn't learn about until later in school" (Participant 64, PT7). "I enjoy learning about different things that have to do with how people work/think. "I

enjoy learning about different cultures and different societies. I also really like affective education when we discuss what is going on in our lives" (Participant 97, PT8). "I also enjoy doing most things and if I do not enjoy something, I usually understand why we are doing it and try to do my best" (Participant 131, FT6).

Most full-time students were just as favorable as the part-time students. The full-time students favored learning they specified as "real world" and beyond the regular textbook curriculum. The statements from full-time students included: "I enjoy all my classes" (Participant 107, FT6). "I enjoy learning about new and unique things" (Participant 123, FT6). "…Art, creativity – things beyond knowledge and facts" (Participant 171, FT7). "I enjoy when teachers relate what we are learning back to real world. I also enjoy a structured but fun class" (Participant 157, FT7). "I like learning about things going on in the real world that I'll actually use" (Participant 144, FT7). "I love learning about humanities and philosophy, I can test my beliefs against other beliefs and philosophies. I love learning about different world views" (Participant 185, FT8). "I enjoy learning new things and getting to talk about things I like to people I've known for years" (Participant 179, FT8).

As the engagement area of enjoyment was highly favored in all grades, there were many positive statements from the full-time students. However, not all students enjoyed their classes. The following two grade seven statements indicated very negative feelings about their program experiences. When asked for an example of what things they enjoyed at school, one student wrote, "I hate school" (Participant 173, FT7), and another student wrote, "Nothing" (Participant 152, FT7). However, grades six and eight students gave in-depth answers to the survey questions; "The thinking skills [class] helps me with logic

and the affective education [class] helps me understand what it means to be gifted" (Participant 31, PT6). "Having fun and having a teacher who goes the extra mile for my education" (Participant 39, PT6). "I enjoy learning about anything that affects me and/or my surroundings" (Participant 49, PT7). "In 6th grade, it was not hard. In 7th grade, I was under lots of stress from tons of homework. I didn't think it could get harder, but it has. Lately, in 8th grade, I have had hours of homework and lack of sleep or free time, but I still wouldn't trade it for the world. Thank you so much. I wouldn't have survived in a normal middle school. This place is awesome" (Participant 174, FT8).

Overall the study gave an overview of student's opinions about the program of which they were enrolled. The results revealed in general that students in both programs had positive feelings with the part-time students indicating more positive feelings than the full-time students. It appeared that the students felt free to answer honestly and many expressed strong feelings, both positive and negative within the different areas of engagement. While the quantitative revealed overall trends, the qualitative data allowed the researcher to gain more detailed insight into students' perceptions. When the quantitative and qualitative data were analyzed, common trends and themes were found.

Summary

Chapter four presented the results of a mixed-methods case study determining student engagement as determined by enjoyment, interest, challenge, and choice. The study focused on students' perceptions of learner engagement within the gifted education program. Quantitative data was collected through the survey and analyzed; qualitative data was collected through open-ended questions and presented in the students own

words. Themes emerged from the qualitative data that provided an in-depth understanding of the quantitative data for this case study.

The majority of quantitative and qualitative data collected from the students were found to be highly favorable from both the part-time and full-time programs, as well as across grade levels six, seven and eight. A minimal number of negative student responses were reported and included in the data analysis. Chapter five includes the conclusion, practical application, and recommendations for further study.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

Introduction

The study was conducted within the gifted programs offered at a public school district of approximately 25,000 students located in the Midwest. The study focused on students' perceptions of learner engagement within the gifted education program in which they were enrolled. The intention of this study was to determine students' perception of their level of engagement while attending the full-time and part-time gifted programs.

The mixed design case study included 208 sixth, seventh, and eighth graders enrolled in part-time or full-time gifted programs. Students responded to statements rated with a Likert scale, and a short open-ended questionnaire for students to add more depth to their survey answers. The statements focused on their levels of engagement as determined by interest, challenge, choice and enjoyment regarding their educational experience.

Conclusions

In viewing and analyzing student responses, the researcher had an overall sense of the complexity of middle school gifted students addressing the issues of engagement. In the qualitative data, there was great variety in the answers, both positive and negative, with some being painfully honest. There is always an element of negativity in student responses to questions about their learning; the presence of some negative responses indicated that students were truthful in their remarks.

As a whole, the quantitative and qualitative survey results indicated both part-time and full-time students had positive feelings towards the gifted programs. This could be interpreted as a reflection on the quality of the programming offered, and student perception of relevance. The results of the survey showed the responses of student enrolled in the part-time program were significantly more positive than those in the full-time program.

The majority of students enrolled in the pull-out, part-time program, are also enrolled in a regular middle school and have that experience to use as a frame of reference for comparison, whereas full-time students have never attended a regular middle school, and are only aware of their personal experience in a full-time gifted program. Part-time students spend four days a week in a regular education setting, and one day a week in the part-time program. In addition to required high school courses, the full-time program also requires grades as part of the student's permanent record and accrual of grade point average (GPA), whereas the part-time program does not provide grades for student records.

The full-time gifted program resides within a large and diverse high school setting; students in the full-time program are closely scrutinized for their ability to successfully maintain, both academically and socially in a non-traditional middle school setting. Student perceptions of academic ability are typically based on school performance such as GPA. Although there are many variables to consider, academic motivation and student effort all affect student performance. Many full-time students experience tremendous pressure both internally and externally to excel. This could explain some of the negative scores/comments given by full-time students on the survey.

In addition to the differences students shared based on their frame of reference within a part-time or full-time program, the environmental setting in which the survey took place may have had an impact on student responses. Part-time students were asked to stay in the library at the beginning of their day and participate in the survey. On the other hand, full-time students were surveyed within the confines of the classroom and a bell schedule. As the library is an expansive, more relaxed, less stressful environment, it may have solicited more positive results from students than that of a small confined high school classroom. Therefore, the environment may have played a part in the students' state of mind, and consequently, the survey results.

In grade level comparisons, both part-time and full-time students in grade six indicated significantly more favorable answers than students in grades seven and eight. Some possible reasons for these differences might be the age and maturity level of the students; those in grade six might be more cautious then older students about sharing negative comments. The students in grade six are also in a program that is a new experience for them, and some of them have moved from a part-time, pull-out program to full-time program, so they may be more open and excited about the opportunities ahead of them. Students in grades seven and eight, on the other hand may be more cynical in their views.

In the four areas of engagement, challenge was the area where students responded most strongly. Students in both programs and all age levels affirmed the presence of challenge. Even though this area was the highest of the four, there were several strongly worded negative comments about the challenge area. Looking below the surface of the

comments, the challenge of the curriculum and critical thinking processes were not as much of a problem as the amount of homework required by the course.

The engagement area of choice was where the survey results and comments were the least favorable according to student perception. Students indicated strong feelings about not having choice in their learning, and seemed to be unaware of the general required curriculum for all students attending middle school in the district. The overall feeling was that gifted students in this program felt they should have more choice, not only in *how* they learn, but *what* they learn.

Practical Application

While the majority of qualitative data collected was favorable, the minimal negative responses should not be discounted. Results from the quantitative and qualitative survey will be shared with the school districts administration and the gifted education faculty. The faculty members and administrative team will be able to take this knowledge and celebrate in the positive reflections and consider the negative perceptions brought forth by the students themselves, in order for the programs to improve services to gifted students in future years.

The positive statements made by both part-time and full-time students may lead program stakeholders to interpretation of an overall positive perception of gifted programming within the district. The part-time students' tendency to make more favorable statements leads to the belief that the part-time program is meeting their needs. While the full-time program students also made positive statements, some of the strongly worded statements, demonstrate a real feeling of being "overwhelmed." As the full-time

students shared these feelings, further clarifying questions may enable positive modifications to enhance students' perceptions of the full-time program.

The study enabled a level of insight into student perceptions of the gifted program in which they are enrolled. Other gifted programs can use the data to develop an understanding of how day-to-day learning is perceived by students within two different types of gifted programming. School administrators may use this information to establish and/or refine gifted programming to meet the needs of gifted learners in their district. As school administrators begin to understand the differences in the students' needs as well as the programs' capacity to meet those individual needs, they can significantly transform and/or modify the learning environment to meet those needs for gifted learners within their districts.

Recommendations for Further Study

The review of literature for full-time gifted programs is limited. This study has filled a gap in the literature on gifted programs, full-time and part-time, as they relate to student perceptions of learning engagement. As part-time/pull-out programs are the most common, the majority of research has been conducted on gifted education as a whole, not specifically to the types of programming.

Future studies can use the findings to dig deeper into some of the aspects of student perceptions of the gifted learning process. One area of study could look at choice with a study that taps into the motivation and engagement students possess when they are allowed to choose the content and direction of their learning. Another area of study could examine the connection between the terms "challenging" and "difficult" as they apply to the thinking/learning process and the level of work required of the course. In addition,

the difference between “challenging” and “difficult” as these terms were used interchangeable by several of the students.

Lastly, an area of study that could enhance the research would be to compare teacher perspectives with student perspectives. By examining and comparing data, one could learn more about congruence between those involved in the teaching/learning process. Additional studies may create a better understanding of the needs of gifted learners. The next gifted child we teach could be a future astrophysicist, cardiologist, theologian, or high school drop-out. This study underscored the importance of understanding students’ perceptions of the learning process. Educators may have assumptions, however when we listen to the voices of the students, we will truly know, and not assume, what is best for gifted learners.

REFERENCES

Adams-Byers, J., Squiller Whitsell, S. and Moon, S. (2004). Gifted students' perceptions of the academic and social/emotional effects of homogeneous and heterogeneous grouping. Gifted Child Quarterly, 48(1), 7-20.

Abeyasekera, S. (2010). Quantitative analysis approached to qualitative data: Why, when and how. Retrieved February 2015 from www.reading.ac.uk/ssc/n/resources/Docs/Quantitative_analysis_approaches_to_qualitative_data.

Bailey, S., Chaffey, G., Gross, M., MacLeod, B., Merrick, C. and Targett, R. (2004). Types of acceleration and their effectiveness. Department of Education, Science and Training. Canberra, Australia. Retrieved February 2015 from http://www.davidsongifted.org/db/Articles_id_10487.aspx

Bainbridge, C. (2013). Definitions of gifted: Different perspectives. Retrieved June 2013 from http://giftedkids.about.com/od/gifted101/a/definitions.htm

Bogdan, R. and Biklen, S. (1998). Qualitative research in education: An introduction to theory and methods. Needham Heights, MA: Allyn and Bacon.

Borg, W., Gall, J. and Gall, M. (2003). Applying educational research: A practical guide. Retrieved February 2015 from http://cedu.niu.edu/~sorensen/502/criteria_sets/borgandgall.htm

Betts, G., Horowitz, F., Neihart, M., Passow, A. H., Sternberg, R., and Zhang, L. (2004). Definitions and conceptions of giftedness. Thousand Oaks, CA: Corwin Press.

Boone, S. (2008). Teaching gifted children: National guidelines and state requirements. Retrieved February 2015 from http://tip.duke.edu/node/897

Brown, M. M. (1984). The needs and potential of the highly gifted: Toward a model of responsiveness. Roeper Review, 6, 123-126.

Cherry, K. (2015). Are people with high IQs more successful? Retrieved March 2015 from http://psychology.about.com/od/intelligence/a/does-high-iq-equal-success.htm

Clark, B. (2009). Growing up gifted: Developing the potential of children at home and at school. Saddle River, NJ: Prentice Hall.

Colangelo, N., Assouline, S. and Gross, M. (2004). A nation deceived: How schools hold back America's brightest students. The Templeton National Report on Acceleration. Iowa City, IA: University of Iowa

Corn, A. L. (1998). Missed opportunities-but a new century is starting. Gifted Child Today, 22, 19-21.

Cramond, B. and Martin, C. (1987). In-service and pre-service teachers' attitudes towards the academically brilliant. Gifted Child Quarterly, 31, 15-19.

Culross, R. (1997). Concepts of inclusion in gifted education. Teaching Exceptional Children, 29, 24-26.

Dai, D. Y. and Rinn, A. N. (2008). The big-fish-little-pond effect: What do we know and where do we go from here? Educational Psychology Review, 20, 283-317.

Dean, C. (2007). The space age: When science suddenly mattered, in space and in class. The New York Times. Retrieved February 2015 from http://www.nytimes.com /2007/09/25/science/space/25educ.html

Delcourt, M., Cornell, D., and Goldberg, M. (2007). Cognitive and affective learning outcomes of gifted elementary school students. Gifted Child Quarterly, 51(4), 359-381.

Delisle, J. R. (1999). For gifted students, full inclusion is a partial solution. Educational Leadership, 57, 80-83.

Dewey, J. (1916). Democracy and education. New York: Free Press.

Education Commission of the States (ECS). Special populations gifted and talented. Retrieved June 2013 from http://www.ecs.org/html/issue.asp?issueid=275 &subIssueID=306

Feldhusen, J. and Sayler, M. (1990). Special classes for academically gifted youth. Roeper Review, 12, 244-249.

Fisher, M. (2014). Gifted education in America. Manassas, VA: Gifted Education Press. Retrieved April 2014 from http://www.cee.org/blog/gifted-education-america-suggested-improvements-dr-maurice-fisher.

Geiger, R. (1997). Meeting the needs of the highly gifted: A parent's perspective. Roeper Review, 19, 6-8.

Gentry, M. and Gable R. (2000). Students survey about…My class activities. Mansfield Center, CT: Creative Learning Press.

Glaser, B. and Strauss, A. (1967). The discovery of grounded theory: Strategies for qualitative research. Retrieved March 2015 from http://faculty.babson.edu/krollag /org_site/craft_articles/glaser_strauss.html

Gross, M. (2000). Exceptionally and profoundly gifted students: An underserved population. Understanding Our Gifted. Retrieved February 2015 from http://www.hoagiesgifted.org/underserved.html

Kaplan, S. N. (2009). Myth 9: There is a single curriculum for the gifted? Gifted Child Quarterly, 53, 257-258.

Kearney, K. (1996). Highly gifted children in full inclusion classrooms. High Gifted Children, 12, 4-8).

Klein, A. (2000). Fitting the school to the child: The mission of Leta Stetter Hollingworth, founder of gifted. Roeper Review, 23, 97-103.

Klimis, J. and VanTassel-Baska, J. (2013). Designing self-contained middle schools for the gifted: A journey in program development. Gifted Child Today, 36, 173-178.

Lampe, S. (1998a). Thoughtfully educating the gifted. Springfield, MO: Roaring River Publishing Co.

Lampe, S. (1998b). Carefully education the gifted. Springfield, MO: Roaring River Publishing Co.

Lewis, G. (1997). Meeting the needs of the highly gifted: A teacher's perspective. Roeper Review, 19, A5-A6.

Lovecky, D. (1994). Exceptional gifted children: Different minds. Roeper Review, 17, 116-123.

Marsh, H. W. (1987). The big-fish-little-pond effect on academic self-concept. Journal of Educational Psychology, 79(3), 280-295.

McCoach, D. B. and Siegle, D. (2007). What predicts teachers' attitudes toward the gifted? Gifted Child Quarterly, 51(3), 246-255.

Meckstroth, E. A. (1990). Parent's role in encouraging highly gifted children. Roeper Review, 12, 208-210.

Merriam-Webster Dictionary. Retrieved June 2013 from http://www.merriam-webster.com

Missouri Department of Elementary and Secondary Education (DESE). (2001). Gifted education: Making a positive difference. Jefferson City, MO: Missouri Department of Elementary and Secondary Education.

Missouri Department of Elementary and Secondary Education (DESE). Retrieved June 2013 from http://dese.mo.gov/quality-schools/gifted-education.

Morelock, M. J. and Morrison, K. (1999). Differentiating developmentally appropriate: The multi-dimensional curriculum model for young gifted children. Roeper Review, 3, 195-200.

National Association for Gifted Children, Gifted education practices. Retrieved February 2015 from http://www.nagc.org/resources-publications/gifted-education-practices

National Association for Gifted Children. NAGC position statement: Addressing affective needs of gifted children. Retrieved June 2013 from http://www.nagc.org/index.aspx?id+384

National Association for Gifted Children. Common Myths in Gifted Education. Retrieved June 2013 from http://www.nagc.org/commonmyths.aspx

National Association for Gifted Children. What is Giftedness? Retrieved June 2013 from http://www.nagc.org/WhatisGiftednescs.aspx

National Association for Gifted Children. A Brief History of Gifted and Talented Education. Retrieved June 2013 from http://www.nagc.org/resources-publications /resources/gifted-education-us/brief-history-gifted-and-talented-education

National Excellence: A Case for Developing America's Talent, Office of Educational Research and Improvement. (1993). United States Department of Education.

Retrieved June 2013 from http://www.ecs.org/html/issue.asp?issueid=275&subIssueID=306

National Research Center on the Gifted and Talented. Renzulli, J. (1978). Three-ring conception of giftedness. Retrieved May 2014 from http://www.gifted.uconn.edu/semsemart13.html

Nowikowski, S. (2011). A Study of the Perceptions of Pre-Service and In-Service Educators on Best Practices for Gifted Students. (ED529191). ProQuest LLC, D.Ed. Dissertation, Indiana University of Pennsylvania.

Passow, A. H. (1981). The nature of giftedness and talent. Gifted Child Quarterly, 25(1), 5-10.

Pereira, N., Peters, S., Gentry, M. (2010). My class activities instrument as used in Saturday enrichment program evaluation. Journal of Advanced Academics, 21(4), 568-593.

Publication manual of the American Psychological Association (APA) Sixth Ed. (2010). American Psychological Association. Washington, DC: APA.

Reis, S. (2000). The Underachievement of Gifted Student: What do we know where do we go? Gifted Child Quarterly, 44(3), 152-170.

Robinson, N. M. (2006). Report Card on the state of research in the field of gifted education. Gifted Child Quarterly, 50(4), 342-346.

Rogers, K. B. (1991). The Relationship of Grouping Practices to the Education of the Gifted and Talented Learner. The National Research Center on the Gifted and Talented. Retrieved January 2015 from http://www.gifted.uconn.edu/nrcgt/reports/rbdm9102/rbdm9102.pdf

Rogers, K. B. (2007). Lessons learned about educating the gifted and talented: A synthesis of the research on educational practice. Gifted Child Quarterly, 51(4), 382-396.

Rowley, J. (2002). Using case studies in research. Management Research News. 25(1) 16-27. Retrieved February 2015 from http://arf-asia.org/resources/using_case_ study_in_research.pdf

Schroeder-Davis, S. (1995). The gifted learner is underserved. Education Week, 14, 30-31.

Sechrest and Sidani, (1995). Qualitative and qualitative methods: Is there an alternative? Evaluation and Program Planning, 18(1) 77-87.

Shah, N. (2012). Gifted programs fight to regain their toehold in the federal budget. Retrieved February 2015 from http://www.edweek.org/ew/articles/2012/ 05/16/31gifted.h31.html

Sternberg, R. J. (1996). The sounds of silence: A nation response to its gifted. Roper Review, 18, 168-172.

Stephens. K. (2000). Gifted education and the law. Gifted Child Today, 23, 30-37.

Subotnik, R. F., Olszewski-Kubilius, P. and Worrell, F. C. (2011). Rethinking giftedness and gifted education: A proposed direction forward based on psychological science. Association for Psychological Science, 12(1) 3-54.

Tolan, S. (1992). Parents vs. theorists: Dealing with the exceptionally gifted. Roeper Review, 15, 14-18.

U.S. Department of Education. (2001). No Child Left Behind Act (NCLB). Retrieved June 2013 from www2.ed.gov/policy/elsec/leg/esea02

U. S. Department of Education. (1993). National excellence: A case for developing America's talent. Retrieved June 2013 from http://www.ecs.org/html/issue .asp?issueid=275&subIssueID=306

Vail, K. (2001). Making schools value student intellect. Education Digest, 66, 22-28.

VanTassel-Baska, J., Reis, S. (2006). Program delivery models for the gifted. Duke TIP. Retrieved January 2015from http://tip.duke.edu/node/725

VanTassel-Baska, J., Willis, G. and Meyer, D. (1989). Evaluation of a full-time self-contained class for gifted students. Gifted Child Quarterly, 33(1), 7-10.

Velez, A. M. (2007). Evaluating research methods: Assumptions, strengths, and weakness of three educational research paradigms. Retrieved February 2015 from http:// www.unco.edu/AE-Extra/2008/9/velez.html

Vogl, K. and Preckel, F. (2014) Full-time ability grouping of gifted students: Impacts of social self-concept and school-related attitudes. Gifted Child Quarterly, 58(1), 51-68.

Webb, J. T., Meckstroth, E. and Tolan, S. (1993). Guiding the gifted child. Dayton, OH: Gifted Psychology Press.

Welch, D. (2013). Personal interview with Davis Welch, Gifted Education Director, DESE, Missouri.

Welch, D. (2014). Personal interview with Davis Welch, Gifted Education Director, DESE, Missouri.

Willis, J. (2007). Brain-friendly strategies for the inclusion classroom. Alexandria, VA: Association for Supervision and Curriculum Development.

Vygotsky, L. (1980). Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.

APPENDIX

Parent Assent Letter

Dear Parents,

I am enrolled in the Doctor of Education in Educational Leadership at Southwest Baptist University (SBU) in Bolivar, Missouri. I am currently in the process of writing my doctoral dissertation. The purpose of the research is to determine if the investment in full-time gifted programming benefits gifted students by assessing their interest and engagement in learning. As part of the research and review process, I am required to inform you the survey and assent forms were approved by SBU's Research and Review Board (RRB).

The survey instrument I am using to determine interest and engagement is entitled, *Student Survey About…My Class Activities* (Gentry & Gable, 2000). The survey is a Likert scale consisting of 31 questions. In addition, students will be asked to answer five questions pertaining to engagement, interest, challenge, choice, and enjoyment. This survey uses no names or identification numbers; privacy will be strictly protected, and should take approximately 15 minutes to complete.

Participation in this study is voluntary. If you do not wish for your child to participate in this survey, or if you have any questions about this project, please contact me at llazzelle@spsmail.org. Thank you for your assistance in this important endeavor.

Sincerely yours,

Lenae Lazzelle
Gifted Education Director

Student Assent Letter

Dear Student,

I am enrolled in the Doctor of Education in Educational Leadership at Southwest Baptist University (SBU) in Bolivar, Missouri. I am currently in the process of writing my doctoral dissertation. The purpose of the research is to determine if the investment in full-time gifted programming benefits gifted students by assessing their interest and engagement in learning. As part of the research and review process, I am required to inform you the survey and assent forms were approved by SBU's Research and Review Board (RRB).

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Participation in this study is voluntary. If you do not wish to participate, do not sign this consent form and do not fill out the survey**.** If you agree to participate in the survey, please sign your name below. Thank you for your assistance in this important endeavor.

Sincerely yours,
Lenae Lazzelle
Gifted Education Director

Print name_____
Signature_____
Date_____

My Class Activities Survey

Circle the three answers that appropriately describe you:	SPS | Non-Public	F | M	6 | 7 | 8		
Student Survey about... My Class Activities (Gentry & Gable, 2000)					
We would like to know how you feel about your class activities. Read each sentence and indicate how often this happens for you in your class by checking the box. There are no right or wrong answers.	Always	Often	Some-times	Seldom	Never
Example: My class is enjoyable. (Student indicated the class is often enjoyable)		X			
1. What I do in my class fits my interests.					
2. I have an opportunity to work on things in my classes that interest me.					
3. What I do in my class gives me interesting and new ideas.					
4. I study interesting topics in my class.					
5. The teacher involves me in interesting learning activities.					
6. What I learn in my class is interesting to me.					
7. What I do in my class is interesting.					
8. My class has helped me explore my interests.					
9. The activities I do in my class are challenging.					
10. I have to think to solve problems in my class.					
11. I use challenging materials and books in my class.					
12. I challenge myself by trying new things.					
13. My work can make a difference.					
14. I find the work in this class demanding.					
15. I am challenged to do my best in class.					
16. What we do in class fits my abilities.					
17. This class is difficult.					
18. I can choose to work in a group.					
19. I can choose to work alone.					
20. When we work together, I can choose my partners.					
21. I can choose my own projects.					
22. When there are many jobs, I can choose the ones that suit me.					
23. I can choose materials to work with in the class.					
24. I can choose an audience for my product.					
25. I look forward to my class.					
26. I have fun in my class.					
27. The teacher makes learning fun.					
28. I like what I do in my class.					
29. I like working in my class.					
30. The activities I do in my class are enjoyable.					
31. I like the projects I work on in my class.					

Student Open-Ended Questions

Student Survey: Challenge - Choice - Engagement - Interest - Enjoyment

1. How challenging would you say your schoolwork usually is? Can you give an example?

2. What choices do you have in the classes you take? What choices do you have in what you learn and the projects you do in class?

3. In what subjects/activities do you feel most engaged at school? In what subject/activities do you feel least engaged?

4. How does the schoolwork you are assigned in class relate to your interests?

5. Can you give an example of some things you enjoy learning about and doing at school?

Vita

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EDUCATION

Doctor of Education: Educational Leadership (2015). Southwest Baptist University, Bolivar, Missouri. Dissertation: Student Perceptions of Engagement in Part-Time and Full-Time Gifted Programs.

Education Specialist: Superintendency (2010). Southwest Baptist University, Bolivar, Missouri. Research published: Improving Achievement in Minority and Poverty Gifted Populations.

Master of Science in Education: Educational Administration (2008). Missouri State University, Springfield, Missouri.

Master in Education: Gifted Education (2001). Drury University, Springfield, Missouri. Capstone Thesis: Meeting the Needs of Highly Gifted Students.

Bachelor of Science in Education: Elementary Education (2000). Drury University, Springfield, Missouri.

EDUCATIONAL EXPERIENCE

2006 - Present	Springfield Public Schools Gifted Education Director
2002 - Present	Drury University Adjunct Professor Pre-College Programs
2001 - 2006	Fair Grove R-X School District District Curriculum Coordinator K-12 Gifted Education Teacher Grades K-12 Teacher Grade 4

PRESENTATIONS

The Effects of a Full-Time Gifted Education Programming on Student Engagement and Academic Growth: National Association for Gifted Children, 61st Annual Convention. Baltimore, Maryland.

Identifying and Serving Gifted Students in Title I Schools: National Association for Gifted Children, 59th Annual Convention. Denver, Colorado.

Gifted Education Administration: Gifted Association of Missouri Conference. Columbia, Missouri.

Gifted Education 101: Missouri Association of Elementary School Principals, Lake of the Ozarks. Exceptional Child, Missouri State University. Exceptional Child, Drury University. Genesis Days, Springfield Public Schools.

What to Expect Your First Year in Gifted Education: GAM New Teachers Workshop. Springfield, Missouri.

Gifted Education in Our Community: Mid-Town Rotary Club. Springfield, Missouri.

Affective Curriculum: Gifted Association of Missouri New Teachers of Gifted Workshop. Springfield, Missouri.

PROFESSIONAL GROWTH & DEVELOPMENT

Service

Missouri Advisory Committee for Gifted and Talented
Gifted Association of Missouri, Executive Board Vice President
Drury University Center for Gifted Education, Pre-College Programs President

Committee Involvement

Comprehensive School Improvement Plan (CSIP)
SPS Leadership Team
SPS Common Core Standards Team
SPS Learning Model Team

Affiliations

Gifted Association of Missouri (GAM)
National Association for Gifted Children (NAGC)
Missouri Association of Elementary School Principals (MAESP)
National Association Elementary Principals (NAEP)

Training

Kagan Dynamic Trainers
Cognitive Coaching
Humanex
Leadership Academy
Leadership Institute
Crisis Prevention Institute (CPI)
Continuous Quality Improvement (CQI)
How the Gifted Brain Learns