INVESTIGATING THE REQUIREMENTS OF A GIFTED AND TALENTED PROGRAM INCLUDING IDENTIFICATION AND SELECTION OF THE GIFTED LEARNER, DIFFERENTIATION METHODS AND GROUPING OPTIONS

by

Canyon A. Schultz

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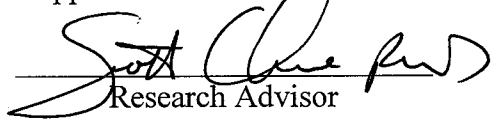

Research Advisor

The Graduate School

University of Wisconsin-Stout

August, 2004

The Graduate School

University of Wisconsin Stout

Menomonie, WI 54751

ABSTRACT

Schultz Canyon A.

(Writer) (Last Name) (First Name) (Middle Initial)

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The area of special education programming has a rich educational history. This special education guarantees that each student shall receive an appropriate education. Furthering this fact is the idea that education within the United States promises each student and equal opportunity to reach his or her potential regardless of race, ethnicity, socioeconomic status, ability, or disability. Thus, it is up to the citizens to address and challenge educational correctness and to investigate programs that may result in improved achievement for all students.

This study investigated many aspects of gifted and talented education. The first involved state and federal support of gifted education including appropriate laws and allocated resources. The second area of research explored the identification and selection

of the gifted learner. The study provided the ideas of using student portfolios and individualized educational plans to aid in the selection process. Additionally, differentiation and other curriculum modification techniques were researched. Possible grouping options of the gifted learner are provided including the possible advantages and disadvantages of each option. Finally, conclusions and recommendations based on the research are included.

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CHAPTER ONE: INTRODUCTION

According to State of Wisconsin Administrative Rule PI 8.01(2)(t).2, "Each school district board shall establish a plan and designate a person to coordinate the gifted and talented program" (Wisconsin Department of Public Instruction, n.d., n.p.) This means that every school in Wisconsin should have a well-defined operating plan in regards to gifted and talented programming in place. A search of the public school systems in Wisconsin via the World Wide Web revealed that a majority of the districts do not mention gifted and talented services or designate a person or persons as the Gifted and Talented Coordinator or similar title.

An obvious question arises from this troubling situation. Why is so little attention given to Administrative Rule PI 8.01(2)(t).2 by the researched school districts of Wisconsin? It is this researcher's viewpoint that gifted and talented programs are needed, if not by rule of common sense, then by rule of the State. Following are identified state and federal guidelines established for the promotion of gifted education established by administrative rules and laws.

Gifted and Talented Wisconsin State Laws and Standards

Further strengthening this belief, several related Wisconsin statutes bolster this rule and help explain programs for gifted and talented pupils. Wisconsin State Statute S. 118.35 (3) (a) states that all gifted and talented pupils have access to a gifted and talented program (Wisconsin Department of Public Instruction, n.d.). Adding to this are the statutes listed by the Wisconsin Department of Public Instruction (DPI) that state these services are to be free of charge, provide an opportunity for parental participation, and incorporate an opportunity to study through school district course offerings, independent

study, cooperative educational service agencies, or cooperative arrangements between school district boards (*Gifted and Talented – definition of terms*, n.d.).

The law provides flexibility for districts to use community resources and resources of other districts in order to provide for the gifted and talented pupils enrolled in their district. Perhaps schools are not doing enough to abide by these rules and statutes as diligently as they should due to the myriad of special education laws that can place a stranglehold on district resources. Is it the intention of our publicly funded institutions to meet the needs of all the students or just those who are more strongly protected by state and federal laws?

Several other standards exist for the betterment and protection of those pupils labeled as gifted and talented. The following listed standards, as delineated by the Wisconsin DPI under *Gifted and talented – related standards*, n.d., provide a more thorough philosophy related to the success of gifted and talented pupils. Standard (b) indicates that staff development plans should include information to develop awareness and understanding of the needs of gifted and talented pupils. Of critical importance to the overall program success of gifted and talented pupils, Standard (e) states that guidance and counseling services must be provided. Standard (n) asserts that many gifted children are at risk and need special attention, counsel, and support to help them realize their potential. These standards are thorough and describe well the framework from which school districts are to build their respective gifted and talented programs.

Federal Law – No Child Left Behind Act

Thanks to the efforts of the current presidential administration, the No Child Left Behind Act (NCLB), major reform of The Elementary and Secondary Education Act

(ESEA) enacted in 1965, mandates placing $278 million into Wisconsin's education coffers according to the Wisconsin DPI's *Background and overview* (n.d.). This legislation will allow districts to provide for all the students the necessary education needed based on their skills and abilities. Unfortunately, none of the federal dollars is allocated toward students that are gifted and talented. The Wisconsin DPI states that over half, approximately $151 million, is allocated toward bolstering basic education programs (*Background and overview*, n.d.). A very small portion is earmarked for special programs such as gifted and talented programming.

The purpose of the Act is to increase the likelihood that all students pass mandatory testing at a level of proficient or higher. Further, the reformed Act maintains the original foundation laid by the ESEA that ensures educational opportunities to our most disadvantaged youth (Wisconsin DPI, *Background and overview*, n.d.). In today's schools, it might be fair to conclude that the gifted and talented students fall into the category of 'disadvantaged youth'.

The NCLB requires increased testing of students and states expectations for passing the tests. If schools comply with the Act, the districts then receive their federal monies and teachers are rewarded for meeting the test standards, sometimes even monetarily. With this in mind, is it possible that teachers will feel the pressure to teach only the necessary material so that their students do well on their tests? This researcher hypothesizes that the answer is, "Yes!"

If this is the answer, what is the likelihood that gifted and talented programming will be a focus of school districts? Perhaps these programs will fail to exist all together especially in smaller school districts or in districts with budgetary constraints. The mix

of the expectations of the NCLB, the reality of budget cuts for school districts and related issues might lead to diminished offerings to all students within school districts such as gifted and talented programming. Perhaps it is time to better protect the unprotected class of student such as the average, above average, and gifted.

It is safe to say that gifted and talented programming has not been a high priority for our schools. According to Hardy (2003) the federal government provided $11.7 billion in Title 1 funds in 2003 and $9.7 billion through IDEA, the Individuals with Disabilities Act. In comparison, federal grants totaled a measly $11.7 million for gifted and talented programs with $7 million of those monies designated for research.

Hardy (2003) estimates that five percent of our school-age population is gifted and talented that equates to approximately three million students. With established gifted and talented programs and more stimulating classroom environments it is plausible that this number would grow just as the numbers for special education have grown with the added resources funding their program. The idea of proper selection of students into gifted education programs will be discussed in detail in Chapter 2 of this paper.

When $11.7 million allocated by federal funds for gifted and talented is divided by 3 million students the answer equals less than $4 for each student. According to the National Center of Education Statistics (2002), approximately 6.3 million students were in federally funded programs for the disabled. Using the $9.7 billion funneled to schools through IDEA, each special education student is awarded almost $1,540.

Summarizing, each gifted and talented student receives $4 and each student in special education receives $1,540. No wonder the gifted and talented student struggles with adequate resources, curriculum, and instruction in our educational system with a

money discrepancy of 38,500 percent! The author contends that the specialized curriculum, special education teacher and aides, and federal support of the special education student is important and necessary; just as necessary as providing equity in education for the gifted.

Need for Gifted and Talented Programming

In our classrooms, teachers fight the daily battle of educating their respective students to the best of their capabilities and skills. Some students fail to progress at a normal pace with their age group requiring testing for special education services. Testing occurs and modifications are made to the student's learning process in order for them to succeed with the multitude of resources available including specialized instruction, access to special education personnel, and constant review of the student's progress. Lucky for these students, these services are available within our school districts to provide the best possible education.

Unlucky is the student who is working at a level above his/her age group. Just as the special education student, the gifted and talented student requires specialized instruction, the best resources, and added personnel to ensure their educational success. Unfortunately, very little money is allocated to these programs much less additional personnel to direct a gifted and talented program for a district. The educational system has failed to provide the best possible education for the gifted and talented student.

Not only is the gifted and talented student suffering from inadequate academic instruction, but this type of student poses other concerns sometimes unique to their status. The concerns may be visible to others such as counselors, teachers, parents, or peers while other concerns may remain hidden within the gifted student that would require

special consideration and attention. Robinson (2002) proposes that if the educational setting does not challenge the gifted and talented then externalizing and internalizing issues, such as the following, may occur:

Externalizing issues -

- impatience, irritability, negativity, arrogance
- what appears to be attention deficit disorder
- bossiness, dominance of a classroom
- refusal to do busy work

Internalizing issues -

- underachievement
- inattention, daydreaming
- depression

One can see that any one of these externalizing or internalizing issues could be debilitating for any student. Nicholas Colangelo (2002) added that the self-concept of gifted students is lower, they become more anxious and feel isolated, and view giftedness as a negative when it comes to peer relations. Colangelo (2002) further stated that gifted students are vulnerable to a number of issues such as social isolation, pressure to conform, family dynamics, rebelliousness, learning/behavioral disabilities, attention seeking, and lack of goals and direction all of which can lead to a student being labeled at-risk. These behaviors may and can lead to underachievement. Stanley and Baines (2002) liken this underachievement as they compare gifted students to cheetahs:

A cheetah running forty miles per hour might be impressive to some

> observers, but it is drastically underachieving in comparison to its potential. Similarly, if a cheetah only has to chase after rabbits who run 20 miles per hour, it won't run 70 miles per hour (p. 14).

It is evident that the needs for the gifted and talented student extend beyond the academic realm into the emotional well-being and psychological arena.

Adding to the need of gifted and talented programming is provided in an interview of Mary Frasier, Associate Director of The National Research Center on the Gifted and Talented in the U.S., done by Darlene Martin (2003). During the interview process, Mary Frasier commented on the ever-changing needs of the gifted and talented and developing better ways to recognize gifted children. She added that refining the methods for recognizing gifted students from all backgrounds early in the educational process is a must.

Frasier continued to assess the needs of the gifted by stating that the research of the social and emotional side of giftedness is paramount. Based on the expert opinion of Mary Frasier on gifted and talented programs, it appears that our educational system has barely scratched the surface of providing quality, well-rounded programs for the gifted and talented student.

Purpose of the Study

The purpose of this study is to investigate programs and services for gifted and talented pupils and possible programming options or recommendations for grades kindergarten through twelfth grade. This study was conducted from January to July 2004 through a comprehensive review and critical analysis of research and literature pertaining to gifted and talented issues including identification and selection of the gifted learner,

possible program options, and potential grouping options for the most suitable gifted education environment throughout the United States. Recommendations for program options based upon critical analysis are included within this study.

Research Objectives

Several objectives for the study exist. They include examining (1) the rationale for gifted and talented programs, (2) gifted and talented methods of selection and classification, (3) possible gifted and talented program methods and components, and (4) potential grouping options for gifted students. Based upon the literature review and subsequent analysis, the final objective for this study is to develop a foundation for a gifted and talented coordinator to start such a program within the school system.

Assumptions

The study assumes that the data collected through library collections, online databases, online journals, and other sources is accurate, fair, and well researched. It is also assumed that the researcher investigated every possible resource relevant to the study providing a balanced and thorough study.

Limitations

One limitation is the current data and research available. It is possible that enough pertinent and relevant information is not available through the research methods used. This includes the limited time spent researching for information from January to July 2004. A second limitation is the inability to generalize the study's findings to all school districts, in every state, for each gifted and talented coordinator, and for every student. A third limitation is that unconscious biases may prevent reporting data and

information in an objective manner at all times during the writing of the research project. A fourth limitation involves the potential for unreliable data sources.

Definitions

Gifted and talented: as defined by the Wisconsin Association for Talented and Gifted by their website, http://www.focol.org/watg/ n.d., March 2004 as:

1) Intellectual ability – the all around bright individual.
2) Specific academic aptitude – the math or science whiz, history buff, etc.
3) Creative or productive thinking ability – the innovator of novel and often-unique ideas, responses, or solutions to problems.
4) Leadership potential – the initiator or organizer of activities within groups of people.
5) Ability in visual or performing arts – the artistic standout in visual art forms, music, drama, creative writing, or dance.

Gifted: (n) A talent, endowment, aptitude, or inclination (defined by Dictionary.com).

Giftedness: (n) Endowed with great natural ability, intelligence, or talent: *a gifted child; a gifted pianist* (defined by Dictionary.com).

Talent: (n) Innate ability, aptitude, or faculty, esp. when unspecified; above average ability (defined by wordreference.com).

Tracking: a means of dealing with individual differences whereby educators decide to divide students into class-size groups based on a measure of the students' perceived ability or prior achievement (Fiedler, Lange, & Winebrenner, 2002).

Enrichment: Educational approach that provides a child with extra learning experiences that the standard curriculum would not normally include (Gibson & Efinger, 2001).

Acceleration: Educational approach that provides a child with learning experiences usually given to older children (Gibson & Efinger, 2001).

Curriculum Compacting: The condensing of textbook material that allows students to demonstrate mastery in less time (Gibson & Efinger, 2001).

Pull-Out Programs: Programs that provide special instruction for gifted students for a short period of time, either daily or weekly (Clarkson, 2003).

Within-class Programs: Specialized instruction for gifted students placed in a class of students not identified as gifted (Clarkson, 2003).

Tiered Assignments: Instruction technique that involves students working on multiple assignments within the same instructional unit (Clarkson, 2003).

Grade Telescoping: The time compression of the gifted education curriculum (Rogers, 2002).

Subject Acceleration: Accelerated progression though one subject area (Rogers, 2002).

Ability Grouping: Relates to re-grouping students for the purpose of providing curriculum aimed at a common instructional level (Fiedler, Lange, and Winebrenner, 2002).

CHAPTER TWO: REVIEW OF LITERATURE

Introduction

Many issues concerning the gifted and talented must be considered in order to develop a quality program. This chapter will investigate these many concerns while providing information and suggestions to build, maintain, and evaluate gifted and talented programs. One issue is the process of identifying the gifted and talented. The following sections include a framework to help in the selection and retention of gifted students.

Many aspects of the child including interests, skills, ability, achievement, behavior, and personality must be considered when selecting students for gifted education. After selecting students, appropriate educational plans for those students previously identified as potentially gifted students must be developed. Educational plans are an essential tool for determining the best possible educational goals and curriculum modifications necessary to meet the set goals.

Another issue discussed in this section involves possible program methods including the ideas of enrichment, acceleration, pullouts, differentiation, curriculum compacting, and other methods of curriculum adjustment. The program methods are extensively discussed with examples of many of the methods included for curriculum modification. The methods are described in detail while providing examples of implementation into the gifted education curriculum.

The last issue covered in detail in this section is the multitude of grouping options available for gifted learners. The grouping options include full-time placement in gifted programs, cluster grouping, grouping for acceleration of the curriculum, grouping for

enriched learning in specific subjects, cross-grade grouping, pull-out programs, and within-class grouping. Each option is covered in detail while providing advantages of each strategy and the disadvantages or effects of grouping on the gifted learner.

Gifted and Talented Identification

The process of identifying the potentially gifted and talented child can begin at an early age in the home (Gibson & Efinger, 2001). These observations can be combined with those observations of educational staff members to determine the gifted and talented (Rogers, 2002). This section will include formal testing procedures and other screening devices used to categorize those as gifted and talented.

Additionally, this section will include a formal six-step process to aid in selecting gifted students provided by the National Research Center on the Gifted and Talented (Renzulli, A practical system for identifying gifted and talented students n.d.), Renzulli & Reis (2000), Renzulli (1985 & 1994), and Johnson (2000). Finally, the National Association for Gifted Children (1998), Renzulli (1990), Renzulli & Reis (1997), Gibson and Efinger (2001) provide five governing principles that provide the framework for an efficient, effective, and successful gifted and talented program.

Many state and national organizations exist solely to provide information related to the topic of gifted and talented. Some are funded through tax dollars while others exist independently. Each has an extensive list of characteristics that can be used in helping to label children as gifted and talented. The American Association for Gifted Children (AAGC) provides a list of characteristics and personality traits parents, teachers, and other school personnel can look for in determining gifted and talented abilities. The

AAGC (Witty, 1958; Roeper, 1977; Feldhusen & Kolloff, 1979; Hanninen, 1979; Whitmore, 1980) provided the following list to help identify students at an early age.

Learning and Language:

- talks and reads early and has a large vocabulary
- demonstrates advanced language proficiency
- enjoys self-expression, especially in discussion
- has unique learning style
- has greater than average attention span
- asks many questions
- exhibits advanced observational skills and retains information about what is observed or read
- is challenged by problems, and chooses sophisticated activities, such as chess or collecting, as early as age 5 and shows interest in many kinds of books, atlases, and encyclopedias
- is interested in calendars, clocks, and puzzles
- is proficient in drawing, music, or other arts

Psychomotor Development and Motivation:

- walks early and displays early or advanced fine motor control in writing, coloring, and building

  things; loves projects that require inquiry
- is driven to explore things, is curious, asks "why"
- wants to master the environment; enjoys learning
- is extremely active and goal oriented

- has wide-ranging, consuming interests

Personal-Social Characteristics:

- spends less time sleeping
- is more dependent on adults for communication
- interacts with adults more effectively than with children, and struggles with adult inconsistency
- is sensitive to dishonesty and insincerity in adults
- demonstrates awareness of issues, such as death, war, and world hunger

Information to be gathered from teachers, school psychologists, and other school and social services personnel:

- developmental level; personality & behavioral characteristics
- examples of schoolwork
- testing and evaluation data
- standardized testing and intelligence testing
- systematic observation with rating scales or checklists of behavioral characteristics
- specific products, such as printing of letters or words, addition of numbers, or drawings

An important component of identification is the testing of individuals. A variety of tests can accomplish the goal of identifying students who are gifted and talented. The tests include aptitude, intelligence, and achievement tests (Pryrt, 1996) that schools have access to through school psychologists or school guidance counselors. One approach for

selection criteria of potentially gifted children is using a universally recognized measure (Louis, Subotnik, Breland, and Lewis, 2000) such as IQ testing.

Two advantages of IQ tests is their ability to identify exceptionally gifted students who have unique educational and socio-emotional needs and the ability to identify students who do not fit the stereotypic trinity of high verbal ability, high achievement and high motivation (Pryrt, 2000). It is essential that qualified personnel administer these tests to provide the most reliable and valid results.

At this point, it is imperative that a school set up a screening committee or school wide enrichment team to delineate the factors in determining which students are accepted into the gifted and talented program. Schoolwide enrichment teams are composed of teachers and parents who have specific responsibility for organizing and coordinating the overall enrichment effort of the entire school (Johnson, 2000).

A critical component of the team is a school wide enrichment specialist or gifted and talented coordinator whose primary responsibilities include direct service to students and leadership in program and staff development (Renzulli, 1985). It is up to the committee to outline the steps needed to obtain acceptance into the school's gifted and talented program and to ensure that these steps are carried out to the fullest extent. This attention to the steps will provide a consistent and fair selection process helping to eliminate discrepancies while picking the appropriate students to be enrolled in the gifted and talented program (Johnson, 2000).

The University of Connecticut, home to the National Research Center on the Gifted and Talented (NRCG/T), provides a six-step process in order to properly identify the gifted and talented (Renzulli, *n.d.)*. The first step is to conduct testing on the

predetermined population and setting a score from which those who score higher are in the program. Step two allows teachers to nominate students who display characteristics that are not easily determined by tests including: high levels of creativity, task commitment, and unusual interests or talents.

Renzulli & Reis (2000) offer the ideas that a variety of paths should be made available for students in order to gain acceptance into a gifted and talented program. Step three involves developing these alternate pathways into the gifted and talented program. A screening committee can accomplish this through parent nominations, peer nominations, tests of creativity, self-nominations, and product evaluations such as portfolios. Step four involves one last sweep through the student population to pick up students that may have developed patterns of underachievement as a result of personal or family problems.

According to Renzulli (1994), step five is an important step that outlines the parameters of the selection process and provides an orientation of the gifted and talented program to the parents of the selected students. Step six is one last effort to spot those gifted students who have slipped through the previous five steps. Teachers are directed to look for students who have a strong interest in a particular topic, area of study, issue, or idea.

The National Center for Gifted Children (*Gifted Education Programming Criterion: Student Identification*, 1998) provides several guiding principles for gifted and talented student identification. These principles complement the six-step process offered by Renzulli discussed previously. The first principle describes that a comprehensive and

cohesive process for student nomination must be coordinated in order to determine eligibility for gifted education services.

The second principle provided by the NAGC (1998) states that testing instruments used for student assessment to determine eligibility for gifted education services must cover a broad spectrum. Johnson (2000) adds that tests must address all of the potential abilities, talents, strengths, and needs in order to provide students an opportunity to demonstrate any potential strengths. Principle four ties in with principle two by providing that all student identification procedures and instruments must be based on current theory and research and that no one assessment technique or instrument shall include or exclude a student from a gifted and talented program (NAGC, 1998).

The third principle highlights the need for a student assessment profile consisting of student strengths and needs. The profile can then be used to develop a plan for appropriate intervention. The idea of student profiles and individualized plans will be discussed in more detail in a later section (NAGC, 1998).

The fifth and final principle offered by the National Association for Gifted Children or NAGC (1998) applies to the procedures for student identification, in that they must include provisions for informed consent, student retention, student reassessment, student exiting, and appeals procedures. This means that a school district's gifted programming guidelines must contain specific procedures for student assessment at least once during the elementary, middle, and secondary levels (Renzulli & Reis, 1997).

For these check-ups on student progress or lack of progress, the necessary data collected should come from multiple sources at multiple times throughout the year and include multiple assessment methods (Renzulli, 1990). Lastly, district guidelines must

provide specific procedures for student retention and exiting, as well as an appeal process. These guidelines and procedures should be reviewed and revised when necessary.

Student Profiles and Individualized Plans

An important component of the selection and retention of the potentially gifted student is the student profile. From this profile, an individualized plan can be written that will best serve the many educational, academic, social, and emotional needs of the gifted learner (Renzulli, 1994). As stated earlier, the NAGC (1998) provided the idea for the use of an assessment profile that must be developed for each child to evaluate eligibility for gifted education programming services. An assessment profile must reflect the unique learning characteristics and potential and performance levels of the gifted student. Additionally, the assessment profile should reflect the gifted learner's interests, learning style, and educational needs.

Gibson and Efinger (2001) offer the idea of a Total Talent Portfolio that is a collection of student generated work designed to illuminate the ability of students and the strengths to focus upon. Additionally, the portfolio helps focus attention on student interests and learning style preferences while providing a flexible means of developing the gifts and talents of the designated population (Gibson & Efinger, 2001).

Just as the student identified with a disability receives an Individualized Education Plan to best serve the needs of the student as provided by federal laws PL 94-142, and subsequently IDEA 97, these students are legally entitled to an appropriate education in the least restrictive environment that includes services for the gifts as well as the disabilities (Weinfeld, Barnes-Robinson, Jeweler, & Shevitz, 2002). The gifted

student deserves the same attention to detail to best serve the needs of the gifted and talented. Individual assessment plans should be developed for all learners who need specialized gifted education.

The first step is to look at the student's strengths, abilities, talents, and needs as discovered through the selection process and use of profiles and portfolios (NAGC, 1998, Gibson & Efinger, 2001). The next step is designing appropriate educational goals based upon each student's particular, unique case, being careful to individualize the plan and to avoid creating a cookie cutter approach to serve all gifted students. Students and teachers cooperatively review and analyze best-case samples of students' work, as well as results from interest and learning styles assessment scales, to make meaningful decisions about curriculum modifications and enrichment opportunities (Renzulli & Richards, 2000).

Part of the second step is identifying a list of objectives that each student is expected to meet. Renzulli (1994) states that the objectives must be clear and provide the activities the student will do to help achieve the set objectives. Johnson (2000) adds that the curriculum should be designed to be both interesting and challenging while addressing "content (e.g., appropriate, relevant, interesting, mandatory), processes (e.g., thinking skills, research skills, literacy), product (e.g. report, model, presentation), and affect (attitudes, appreciation, awareness)." Willard-Holt (2003) states that students should be able to make product choices allowing them to demonstrate their understanding of the content. Also, the use of tiered assignments, students choosing assignments at different levels of complexity, is an effective strategy for teaching the gifted.

Renzulli (1994) provides the idea that several procedural topics must be addressed in the educational plan. One of these topics is the evaluation and monitoring of student

work and progress. It is essential that qualified personnel are providing feedback and guidance for the gifted student to prevent bad study habits, social behavior and self-esteem problems, disinterest, underachievement, and boredom (Sankar-DeLeeuw, 1999).

Another topic involves setting timelines and setting criteria for assigned tasks. The educational plan should provide times during the day for the student to complete the objectives and delineate the expectations for each objective and how each objective will be met (Renzulli, 1994). Additionally, Willard-Holt (2003) postulates that an efficient way to accomplish several tasks within one lesson is to combine content, skills, and standards. The last topic outlines the potential programming options for the delivery of the educational plan. Program options will be discussed in the next section covering the areas of differentiation and ways to differentiate the gifted curriculum.

Program Methods for Gifted and Talented Education

Dozens of options exist for program methods in the world of education. Gifted and talented programming can be delivered in a number of ways to best serve the gifted population. A first step in designing a gifted and talented program is to research, gather, and disseminate current, relevant information from experts in the field of gifted education from the strongest research base possible (Renzulli & Reis, 2000).

The second step is to mold the gathered information into a quality program. Clarkson (2003) suggests that gifted education has used one of three main approaches in building an appropriate program over the past five decades. They are as follows: (1) acceleration of instruction by placing students in higher grade levels so that they graduate sooner, (2) enrichment of instruction within the regular school setting, and (3) grouping of gifted students for special instruction. Clarkson (2003) adds that the four most

common types of arrangements for gifted education are within-class programs, pull-out programs, separate classes, and special schools.

Differentiation of curricula and instruction has long been an accepted principle in educating gifted and talented students (Olenchak, 2001). The idea of differentiation loosely refers to accommodation strategies for maximizing school experiences of students with high ability by providing instructional and curricular modifications ensuring that teaching and/or curricula are distinct from those provided other learners (Olenchak, 2001). Renzulli and Reis (2000) state that a quality gifted education curriculum must contain a broad range of differentiated experiences that take into account each student's unique strengths in order to provide equity in the classroom.

One type of differentiation involves enrichment. Gibson and Efinger (2001) provide three types of enrichment experiences. Type I enrichment consists of general exploratory experiences nor typically covered in the regular curriculum and is accomplished through guest speakers, demonstrations, interest centers, and video presentation. Type II enrichment develops higher level thinking processes through research report writing or field trips. Type III enrichment involves exchanging the role of the student as lesson-learner to that of learning firsthand through apprenticeships, mentorships, science fairs, and other problem-solving situations. Renzulli and Reis (2000) state that enrichment of the curriculum allows students to show superior performance or advanced interest to escalate their experience through options available through other means of delivery as discussed by Gibson and Efinger (2001).

Enrichment modifications can be easily addressed in the classroom or by using outside resources without straining teachers and by serving the gifted population fully.

Johnson (2000) provides the following four basic assumptions about the nature of learning:

> First, it is assumed that each learner is unique and that all learning experiences reflect the abilities, interests, and learning style of the individual. Second, learning is most effective when students enjoy school activities. Third, learning is meaningful and enjoyable when content and processes are learned within the context of a real problem. Finally, formal instruction is best used to enhance student construction of meaningfulness (p. 52).

Thus, it is possible to deliver effective enriched curriculum by understanding the student, developing enjoyable experiences, and discovering ways to challenge gifted students by using real world problems.

Curriculum modification techniques are necessary for some students who have previously mastered content or if the needs of some students are not being met within the normal curriculum (Johnson, 2000). Adding to this, Johnson offers that idea that eliminating mastered content can affect a student's level of motivation and ability (2000). Winebrenner (2000) states that curriculum compacting can address the need for gifted students to demonstrate what they already know, to receive full credit for mastered material, and to spend their own time on challenging, interesting activities.

Willard-Holt (2003) postulates that curriculum compacting works best with individuals or small groups. Renzulli and Richards (2000) offer a three-step process for curriculum compacting provided below:

> Consists of defining the goals and outcomes of a particular unit of study, determining and documenting which students have already mastered most

> or all of a specified set of learning outcomes (or are capable of doing so at an accelerated pace), and providing activities for students to pursue during the time gained by compacting the regular curriculum (p.62).

Curriculum compacting allows students can then accelerate their learning, undertake individual or group research projects, help teach their peers, or participate in out-of-class or non-school activities (Renzulli & Richards, 2000).

In general, gifted education requires designing alternative learning experiences that provide differentiation opportunities (Winebrenner, 2000). The alternative learning experiences must be modified in terms of content, learning processes, products, learning environment, and assessment (Winebrenner, 2000). Enriching curriculum and compacting curriculum were previously discussed as modifications of content to serve the gifted student.

Altering learning processes provide depth and complexity appropriate to a gifted student's learning abilities (Winebrenner, 2000). The idea of adjusting learning processes can be accomplished through use of extra or different activities and using outside sources. Johnson (2000) examines the use of exploratory activities to expose students to a wide variety of disciplines, topics, ideas, events, concepts, and issues. These activities can be accomplished through the use of audiotapes, computer programs, debates, demonstrations, field trips, guest speakers, displays, articles, mini-courses, museum programs, photographs, television programs, learning centers, and performances (Johnson, 2000). A simple example of this technique would involve a gifted student attending a presentation on a relevant topic at a local college or university.

Products need to be altered in order to capture the interests, abilities and talents of each student regardless of classification of gifted or special education. Winebrenner (2000) adds that products should be different as to allow students to demonstrate learning at advanced levels, moving beyond typical research, and adding the component of presenting finished products in a variety of ways.

An important part of product modification and evaluation is to observe and document student satisfaction and enthusiasm by both the supervising teacher and by the student (Johnson, 2000). This practice allows the student to evaluate the process and the product providing personal feedback to the teacher in order to adjust appropriately future projects, products, and activities. An example of a product choice might be to allow the student reading a book to complete a written script, videotape a scene, or develop a comic strip that still addresses the same content standard but uses a different set of skills (Willard-Holt, 2003).

The learning environment can look very different from school to school. Some districts may have separate gifted and talented education classrooms while others may differentiate the curriculum in the regular classroom. Students may pursue learning interests outside of the normal classroom, choose to work independently or to collaborate with other students, or decide on self-directed projects to be completed on the student's own time (Winebrenner, 2000). Genevieve Marie Johnson (2000) states that using group training of skills is an effective approach to adjusting the learning environment.

Additionally, Johnson (2000) offers the following on the use of group activities to modify the learning environment of gifted education.

One method of modifying the learning environment is to use group

> training activities that are intended to enhance a student's development in analytical skills, organizational skills, critical thinking, creativity, intrapersonal and interpersonal skills, listening, observing, summarizing, research skills, notetaking, interviewing, surveying, library and database skills, utilizing technology, accessing community resources, leadership, and written, oral, and visual communication (p. 54).

These activities are best served on an individual or small group basis utilizing real problems such as personal or social or community relevance, having no exact or universally accepted solution, attempting to bring about a change in action, attitudes or beliefs (Renzulli, 1994).

As previously noted, providing real world problems is beneficial to the gifted student and allows them to investigate and create solutions based upon what they are thinking, feeling, and doing much like a practicing professional in a particular field does to find answers (Johnson, 2000). Joseph Renzulli's book, *Schools for talent development: A practical plan for total school improvement* (1994), he outlines ten steps for teachers to help guide students through real life investigations. Johnson (2000) has provided the following interpretation of these steps:

> (1) assess, find, or create student interest, (2) conduct an interview to determine the nature of the interest, (3) facilitate the formation of a research question, (4) develop a written plan, (5) help locate multiple resources, (6) provide methodological assistance, (7) provide managerial assistance, (8) help identify the final product and outlet, (9) provide feedback and escalate the process, and (10) evaluate, with the student, the process

and product (p. 54).

Using these steps will help bolster the learning environment of the gifted student through proper planning and preparation.

There are several other areas to be considered when addressing the needs of the gifted. These areas involve instructional skills and strategies that can be used in addition to the previous techniques discussed. Barnes-Robinson, (2002) offers several powerful strategies to introduce into the gifted classroom. The first strategy involves integrating visual and performing arts into the gifted curriculum motivating students to retain more information more readily. The second strategy revolves around thinking skills and requires teachers to learn thinking strategies, teach, model, and practice them in the classroom while using metacognitive skills to model the thinking process, develop a thinking language, and help students search for their own solutions.

The third strategy provided by Barnes-Robinson (2002) requires an emphasis on reading. More specifically, the emphasis is on comprehension, listening, and gaining information. To be successful, the strategy shall include the use of literature for stimulating reading interest, oral discussion, and the use of high interest personal reading material that may be above grade level.

Another area of concern is the area of memory. Barnes-Robinson (2002) states that students become more independent as they learn techniques to enhance their own memory such as mnemonics, visual imagery, outlining, note taking, and highlighting. Additionally, students can improve on their memory skills by sequencing activities after a lesson or even, teaching information to other students, connecting information to a previous experience, and listening intently.

Possible Grouping Options

A myriad of grouping options are available for the gifted student. Rogers (2002) provides a list of grouping options, in order of importance and success, beginning with full-time placement in a gifted program, cluster grouping, grouping for acceleration, regrouping for specific subjects, cross-grade grouping, enrichment pull-outs, and within-class ability grouping. Rogers does note that differences from district to district may require using options from further down the list.

The first grouping possibility is full-time placement in special enriched or accelerated gifted programs. Rogers (2002) shares that research shows that students have shown marked academic achievement gain across all subject areas, as well as moderate increase in attitude toward the subjects in which these students are grouped. The second option involves cluster grouping where the gifted learners are placed with a trained teacher of the gifted within the regular classroom.

Grouping for acceleration of the curriculum is the third grouping option. Rogers (2002) reports that accelerated gifted students show substantial achievement gains over their gifted counterparts who were not accelerated. Rogers (2002) continues by stating that five of the following six forms of acceleration programs have demonstrated substantial academic gains: non-graded classroom, curriculum compacting, grade telescoping, subject acceleration, early admission to college, and advanced placement.

The fourth grouping option involves regrouping for enriched learning in specific subjects. Rogers (2002) reports substantially higher effects for gifted students when they are regrouped for specific instruction than for students at other ability or achievement levels. Fiedler, Lange, and Winebrenner (2002) add that this grouping option allows

students to be place with other students with similar learning needs while receiving curriculum aimed at a common instructional level.

A fifth grouping technique is cross-grade grouping or nongraded classrooms. Tieso (2003) provides three major advantages to using cross-grade grouping. The first advantage is that the arrangement allows students to move into and out of groups based on their current demonstrated achievement. The second advantage requires the teacher to make curriculum adjustments to meet the unique needs of the students. The third advantage of cross-grade grouping plans is the admirable goal of reducing heterogeneity in the classroom without adversely affecting the self-esteem of those students in the lowest achieving groups.

Another grouping option is enrichment pull-out programs. This grouping option was previously introduced by Clarkson 2003) defined as providing specialized instruction for a short period of time where the gifted learner is instructed in a specific grade level by use of special activities. Rogers (2002) adds that research shows substantial improvements in achievement, critical thinking, and creative thinking for gifted and talented learners when they are subjected to this grouping option.

Within-class ability grouping is another appropriate and effective grouping technique. This practice groups students within the same class into smaller groups for specific activities and purposes (Tieso, 2003). For example, a teacher may present a lesson and then places students into small groups based on their ability level, interests, or performance history. There is every reason to believe that this form of grouping is extremely beneficial to gifted learners when the materials for those groupings have been appropriately differentiated (Rogers, 2002). One major disadvantage to this option is that

teachers must learn a new form of classroom management to create a learning environment sensitive to individual levels of readiness and manageable in terms of student behavior (Tieso, 2003).

These grouping options present potential socialization and psychological effects (Rogers, 2002). In terms of social skills, social maturity, participation in extracurricular activities, leadership activities, and peer interaction ratings, few forms of grouping have been tested, and those that have been tested show no differences in socialization issues (Rogers, 2002). Some studies have indicated that the effects of grouping are positive for low ability students as the students have an opportunity to interact with the teacher and other students of similar ability. Likewise, a negative impact may exist for high ability students as they suffer a drop in self-concept and self-esteem due to the presence of other high ability students (Tieso, 2003). It is likely that there are many personal, environmental, family, and peer issues that affect the high ability student's self-esteem and socialization than grouping practices (Rogers, 2002).

The issue of elitism is always a concern for gifted and talented programs. By serving a scattering of gifted students in a regular classroom, the idea of superiority may be a realistic hurdle promoting arrogance in the high ability student (Fiedler, Lange, & Winebrenner, 2002). The authors continue by stating that a goal of education is to help all students develop a realistic appraisal of their own ability, thus comparisons are more likely to be accurate when measured with others of similar gifted ability.

Rogers states that in a study of 25 schools that a greater number of ethnic minorities and the economically disadvantaged were in the lower track classes even though no evidence was found stating that counselors or teachers used racial or social

information about students when making placement decisions (2002). Recently, wide-spread efforts are being made to overcome these inequities in the gifted classroom by placing less importance on standardized testing and by breaking the stereotypes that high achievers come from an affluent background or have a positive attitude toward school (Fiedler, Lange, & Winebrenner, 2002). Ensuring that each student is treated equally and fairly a through, careful observation of students must be completed to locate the creative thinkers, nonproductive gifted students, and gifted students with learning disabilities and other handicaps (Fiedler, Lange, & Winebrenner, 2002).

In summary, researchers are divided on the effects of grouping arrangements. The research does support that some form of temporary ability grouping focused on a specific aptitude, skill, or content and complemented with appropriate differentiated instruction may have significant effects on student achievement of high ability students (Tieso, 2003). Additionally, the possible adverse side effects can be corrected through careful observations of students, providing needed counseling or other special services, and having trained gifted education teachers.

CHAPTER THREE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Both the State of Wisconsin rules and laws and federal laws support the establishment of gifted education in our public schools. The idea of gifted education includes the hiring of a gifted and talented coordinator, creating a quality curriculum, and providing the specialized instruction to every possible student regardless of race, ethnicity, ability, or socioeconomic status.

Unfortunately, gifted education is poorly funded from state and federal monies. This is due to the fact that gifted students are not a protected class of students like the myriad of classifications available to students with disabilities and other handicaps. The No Child Left Behind Act was passed to help ensure students pass mandatory tests at a level of proficient or higher. Most of the federal money has been allocated to programs by school districts other than gifted education.

Research shows that ten percent or more of the student population is gifted based on academic performance or potential achievement. When figuring in the special skills, talents, or abilities that students possess, the percentage of students in our schools that would benefit from gifted education would likely increase. The average number of special education students in a school district based on national data is approximately thirteen percent. Money and resources allocated to these almost identical numbers of gifted students to special education students is approximately $4 to $1,540. The numbers do not lie and they show the importance of the special education student in relation to the gifted learner. Knowing this, it is even more essential that school districts implement

effective gifted education programs with creative ideas for differentiation and grouping methods to best serve the gifted learner and potentially gifted learner.

It is safe to say that every student progresses through each lesson, activity, project, and unit of instruction differently. Thus, each student's needs must be addressed in order for them to receive their protected right for an appropriate education. The gifted student is often forgotten in this process, as the attitude of teachers may be that the gifted will complete the work without assistance. The question remains as to how to best serve the gifted population that needs a differentiated curriculum to continue challenging each student base upon their needs, interests, and ability.

Without a quality, effective, differentiated curriculum, the gifted learner may display or not display any myriad of problems. The gifted student is prone to impatience, ADHD characteristics, work refusal, and bossiness. Other issues that may not be readily seen may include lack of motivation for all school activities, underachievement in the classroom, inattention, and depression. These major concerns can be helped or elevated through special education for the gifted.

Conclusions

Properly identifying the potentially gifted learner is the first step in the selection process for a gifted education program. The research had concluded that several observations of students, in a variety of settings, over time, by qualified personnel including parents is essential for selecting every student eligible for gifted education. A school district should research appropriate methods of observations that best fit the needs of their students.

Many characteristics exist that help label students as gifted. The first area involves learning and language. A child may be potentially gifted if they are observed reading and talking at an early age, enjoys self-expression, has an unique learning style, asks many questions, chooses challenging task, is proficient in music/arts/drawing, extremely active, and has a wide range of interests. Additionally, the student may exhibit the following personal-social characteristics: spends less time sleeping, interacts with adults more effectively than with other children, is sensitive to dishonesty, and demonstrates awareness of global issues.

School districts with the help of the gifted educator must then provide testing of the potentially gifted. First, the tests must be appropriate for each student and administered by qualified personnel. Second, the tests must cover the topics of aptitude, intelligence, and achievement, as well as tests to uncover special interests in areas other than academics such as the arts. Last, the testing results must be accurately read with the understanding the one or even a battery of tests does not qualify or disqualify a student from special education for the gifted.

The research shows that the best practice in identifying students is to have a selection committee. The committee is composed of district personnel, parents, community leaders, and peers that are qualified to help in the selection of the gifted student. A critical component of the selection committee or school wide enrichment team is the leader of the team who must be educated in the field of gifted education. Under this arrangement, the team then outlines the steps for admittance into the district's gifted education program.

Many screening options and selection criteria are available to organize the selection process. A formal six-step process is provided by the National Research Center on the Gifted and Talented. The steps delineate the use of testing instruments, teacher nominations, developing alternative ways into the program, performing a sweep through the student population, establishing an orientation process, and executing one last search for students that may slipped through the other steps.

One crucial component of the selection and retention of gifted students is the utilization of student profiles and individualized plans. The student profile outlines the unique learning characteristics and potential and current performance levels of the gifted learner while providing the learner's interests, learning style, and educational needs. One method is to use a portfolio that compiles the student's completed work and provides information on the individual's learning preferences.

The individualized plan is essential to meet the ever-changing needs of the gifted learner. The plan looks at the gifted student's strengths, abilities, talents, and needs and incorporating these into appropriate individualized educational goals. Part of the plan details the learning objectives and steps necessary to ensure progress through timelines and monitoring, and proper evaluation and feedback.

Once the student has been identified, selected, and as an individualized educational plan in place, the next area the school district must research is the proper program methods to serve the gifted population. These methods fall under the umbrella of differentiation or modification to the regular classroom curriculum to fit the needs of the gifted learner. Differentiation methods include enrichment, curriculum compacting,

and other alternative learning methods that alter the content, learning processes, products, learning environment, and assessment.

Other areas that need to be addressed include instructional skills and strategies. The strategies entail infusing visual and performing arts into the curriculum and teaching thinking skills in the classroom. The third strategy is to focus on the area of reading. Last, the issue of memory must be explored in terms of learning mnemonics, visual imagery, and note taking.

The remaining area of gifted education covered in the research involved the idea of possible grouping options. These options included full-time placement in a gifted program, cluster grouping, grouping for acceleration, regrouping for specific objects, cross-grade grouping, enrichment pull-outs, and within-class ability grouping. Each grouping option provides a viable outlet for gifted students to learn up to their ability. Finally, the disadvantages and possible effects of grouping must be considered when setting up a gifted and talented program. This is necessary in order to best serve every student in the educational arena regardless of race, ethnicity, or socioeconomic status.

Recommendations

The research has provided a strong foundation from which a solid gifted and talented educational program can be developed. According to the compilation of the research, the following recommendations are being made. The recommendations are limited to the scope of the study including identification and selection of gifted students, appropriate curriculum modification strategies and possible grouping options. The following recommendations are generic in nature, as each district must analyze their

individual needs and allocated resources in order to develop an appropriate gifted educational program.

1. Hire a certified gifted and talented educator.
2. Establish a school wide enrichment team comprised of the gifted and talented coordinator, school personnel, parents, and student peers.
3. Through the team, define and set identification of potentially gifted students criteria using the methods suggested.
4. Through the team, set selection criteria for gifted students.
5. Use student profiles for proper identification and selection of gifted students.
6. Develop a fluid and dynamic individualized plans for each student identified as gifted.
7. Develop several forms of differentiation to appropriately modify the curriculum to serve the gifted population.
8. Determine the best possible grouping options for the students and the district, being cognizant of potential disadvantages and affects of grouping.

Limitations of the Study

The research did not cover many areas of gifted and talented programming. It is essential that a school district thoroughly research the area of gifted education to provide the best possible program that could be delivered when considering a district's resources. Areas that need to be researched beyond the scope of this paper include the role of the school board and administration in the development and maintenance of a gifted education program. Another area is the role of school personnel in the identification and

selection of the gifted learner such as the school psychologist, teachers, aides, special services teachers, and school counselors.

This study did not cover the mental, emotional, social, psychological effects of being gifted and receiving gifted education curriculum. Many issues are prevalent in the area of the overall well being of the gifted learner. The research does show that gifted students exhibit different, unique, and special behaviors that differ from that of the average learner. Thus, a district must research these characteristics and provide adequate services through the school psychologist, school counselor, teachers, and other special services personnel.

Additionally, in light of the fact that a school district must develop a detailed curriculum, this study did not provide one. The gifted and talented coordinator must develop a curriculum based on the individuals accepted into the program based on their individualized program plans. The resources of the school and available materials must be inventoried and utilized to build the best available gifted and talented program.

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