DETERMINING THE BEST POSSIBLE PROGRAMMING OPTIONS FOR GIFTED AND TALENTED STUDENTS IN SMALL RURAL SCHOOL DISTRICTS

By

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ABSTRACT

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The education of gifted and talented students is an area that has long been neglected in public education systems. Due to extreme demands on the educational system, special programs often do not receive the attention they need and deserve. This has been especially true in the area of gifted and talented programming and continues to be a serious problem in many schools today. School districts need to improve gifted and talented programs in order to provide highly capable students with an appropriate education.

This study investigated the best possible programming options for educating gifted and talented students in small rural school districts. Professional recommendations for nominating, screening, and admitting students into a gifted and talented program are discussed in this study. Various programming options, including enrichment, differentiation, acceleration, curriculum compacting, alternative curriculum, extra-curricular activities, and personal development, are explored. Standards regarding the administration of services are presented. Finally, guidelines for evaluating a gifted and talented program are detailed**.**

This study was conducted through a comprehensive review and critical analysis of research and literature focused on gifted and talented programming throughout the United States. A discussion of the challenges in gifted and talented education in small rural school districts, conclusions on programming options, and recommendations for the improvement of the Gifted and Talented Program of the School District of Glenwood City are included.

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CHAPTER 1

Introduction

The education of gifted and talented students is an area that has long been neglected in the public education system. Due to extreme demands on the educational system, special programs often do not receive the attention they need and deserve. This has been especially true in the area of gifted and talented programming and continues to be a serious problem in many schools today. School districts need to improve gifted and talented programs in order to provide highly capable students with an appropriate education.

Definition of the Gifted and Talented

The Wisconsin Department of Public Instruction (DPI) defines the gifted and talented in s.118.35(1), Wis. Stats. as, "Pupils enrolled in public schools who give evidence of high performance capability in intellectual, creative, artistic, leadership, or specific academic areas and who need services or activities not ordinarily provided in a regular school program in order to fully develop such capabilities*" (Gifted and talented rules and statute*, n.d., n.p.).

Experts in gifted and talented education note numerous qualities which are characteristic of such students. According to Renzulli's three-ring conception (*What is this thing called giftedness*, 1999), gifted students possess above average intelligence, creativity, and task commitment. Giftedness is not determined by intelligence alone; highly creative-productive people are also considered gifted.

More specifically, gifted and talented students are commonly described as quick to learn, curious, investigative, observant, good at problem-solving, creative, non-

conforming, passionate, independent, and self-critical. In addition, they often have an advanced vocabulary, a good memory, an advanced sense of humor, and the ability to elaborate on, synthesize, and evaluate ideas (Benson, 1994; Kessler, 2000; School District of Glenwood City, 1996; Winebrenner, 1992).

Need for Gifted and Talented Programs

Gifted and talented education has been given little support by the public. Former Secretary of Education Riley states that at the time of the 1993 report, "National Excellence: A Case for Developing America's Talent," the status of educating gifted and talented students had not been reported on in over 20 years (cited in Taylor, 1999, p. 290). Cline and Schwartz (1999) point out that, "As of the late 1990s, there is no federal mandate entitling [gifted] students to an education that is commensurate with their abilities" (p. 3).

Radaszewski-Byrne (2001) further notes the lack of regard for gifted education in this observation:

> Neither the text in the PFIE [Partnership for Family Involvement in Education] publication nor the changes to the text in Title X of the proposed Educational Excellence for All Children Act of 1999 addressed the need for individualized education to meet the unique learning characteristics of gifted children. In contrast, the Individuals with Disabilities Act of 1997 protects the legal right of persons with disabilities for a free and appropriate public education. (p. 35)

Therefore, when spending resources, school districts tend to focus on students with disabilities and neglect those with high abilities.

Many people share the attitude that gifted and talented students do not need special attention. They contend that gifted individuals are intelligent enough to learn on their own. This attitude is unacceptable in public education today. It is the responsibility and moral obligation of public schools to fulfill the individual needs of *all* their students. As stated by VanTassel-Baska (1992), "The gifted have a right to an appropriate education, one that is grounded in the recognition of individual differences and unique learning needs" (p. 63).

Rarely are these needs met within the regular classroom curriculum. Winebrenner (1992) argues that the students who are the most able are the ones who will learn the least. In her book, she quotes a poem written by a gifted student, which clearly demonstrates this point:

> All the time I just sat there…waiting,
> Waiting for something new to learn.
> My teachers should have ridden with Jesse James
> For all the learning time
> they have stolen from me! (p. 2)

High ability students are robbed of their right to an appropriate education when they are not given unique opportunities to learn.

The 1993 report by the U.S. Department of Education describes this failure to challenge gifted students to reach their full potential as a "quiet crisis" (cited in Taylor, 1999, p. 290). Special programming must be offered to end this crisis. Gifted students need to be challenged and motivated. They need opportunities to feel pride in their academic accomplishments and to realize their potential. In the state of Wisconsin, Gifted

and Talented Standards (k), (n), and (p) mandate that special accommodations and unique opportunities be given to challenge talented students and help them to realize their potential (*Gifted and talented-Related standards*, n.d.).

When this is not done, many gifted and talented students experience boredom, dissatisfaction, and low self-esteem. Often, these students become underachievers and pose problems in the way of discipline. Winebrenner (1992) believes that when students are given the educational opportunities they need, they will feel more positive toward school, and they will become more motivated and more productive.

An experimental study done by Hollingworth produced such results. In this study, fifty gifted students from New York City were selected to attend Speyer School, a school for exceptional children, from 1936-1941. Forty years later, White and Renzulli conducted a follow-up study with twenty of the subjects. The subjects reported that their experience in Speyer School "cause[d] them to learn and like school for the first time, [and gave] them a strong desire to excel" (cited in Klein, 2000, n.p.).

It is indeed evident that a greater emphasis should be placed on the implementation of gifted and talented services in the public education system. Schools must find ways to strengthen gifted and talented programming despite the fact that they are continually faced with a growing number of demands.

Purpose of the Study

The purpose of this study was to determine the best possible programming options for the gifted and talented students in the School District of Glenwood City District. This study was conducted through a comprehensive review and critical analysis of research and literature focused on gifted and talented programming throughout the United States.

Recommendations based on the results of the research are included in the study and were submitted to the administration of the School District of Glenwood City.

CHAPTER 2

Literature Review

Identifying gifted and talented students, developing programming options, administrating services, and evaluating their effectiveness are all important elements in a gifted and talented program. Countless resources are available which outline procedures for formally identifying gifted and talented students and designing special programming services to meet their needs. Professional recommendations for nominating, screening, and admitting students to a gifted and talented program are discussed in this chapter. Various programming options, including enrichment, differentiation, acceleration, curriculum compacting, alternative curriculum, extra-curricular activities, and personal development, are explored. Standards regarding the administration of services are presented. Finally, guidelines for evaluating a gifted and talented program are detailed.

Identification of Gifted and Talented

Identification is the first step in providing appropriate gifted and talented education. Gubbins (1995) explains that identifying gifted and talented students does not just answer the question, "Who are they?" but must also address "How do we find them?" and "What do we do when we find them?" (p. 17). To answer these questions, a school district must have an effective identification process. Three basic components are involved in effective identification: nomination, screening, and admission into the gifted and talented program.

Nomination.

The identification procedure begins with nomination. According to standards set by the National Association for Gifted Children (NAGC) in 1998, it is essential for the

nomination procedure to be comprehensive and cohesive. Nominations must be taken annually, every student must be considered, nominations must be accepted from any source, and parents must be given information about the identification process.

Renzulli (*A practical system for identifying gifted and talented students*, n.d.) recommends six different methods for attaining nominations. The first is to look at students' test scores. Any student who receives a score of 92% or higher on any single standardized test or subtest should be nominated. Automatically nominating students with high standardized test scores helps to guarantee that underachievers, who do not show their abilities through their performance in classrooms, will be included.

Second, nominations should be requested from teachers. Teachers often notice talents in students that are not necessarily reflected by test scores. Students who are very creative or have unusual or special areas of interest are frequently overlooked when nominations are based on standardized testing. There are also many situations where test scores are not available. Therefore, teachers become a primary tool in assessing students' abilities (Renzulli, *A practical system for identifying gifted and talented students*, n.d.).

Along with teacher nominations, Renzulli (*A practical system for identifying gifted and talented students*, n.d.) suggests using alternative pathways. Alternative pathways include parent, peer, and self-nominations, creativity tests, and product evaluations. These too aid in identifying talents that may not be measured or demonstrated on tests.

Another approach is to hold special nominations. In a special nomination, a list of all the students who have already been nominated is given to every teacher within the school district. Any teacher can then add students to the list who may have been

overlooked by their present teachers. Teachers overlook students with gifted potential for many reasons. Some teachers do not nominate students because they do not believe in gifted and talented programming. Other times, a teacher may not recognize a student as gifted because his/her talent is in an unusual or special area, s/he is an underachiever, or there is a personality conflict between the teacher and student. The special nomination procedure compensates for these situations and thus ensures that *all* the students in the school are considered (Renzulli, *A practical system for identifying gifted and talented students*, n.d.).

Notification of parents is the next step. The school district must send a letter of notification to the parents of all students who have been nominated. The letter should include a comprehensive description of the identification process. It should also explain the nature of the gifted and talented program and invite parents for an orientation meeting (Renzulli, *A practical system for identifying gifted and talented students*, n.d.).

Lastly, Renzulli (*A practical system for identifying gifted and talented students*, n.d.) recommends the use of action information nominations. These are nominations that are based on performance assessment. Renzulli defines action information as "the dynamic interactions that occur when a student becomes extremely interested in or excited about a particular topic, area of study, issue, idea or event that takes place in school or the non-school environment" (n.p.). Action information is one final measure to ensure that all students' talents are noticed.

Screening.

The next step in identifying students as gifted and talented is screening. Once students are nominated, their names are placed in a talent pool. All individuals in the

talent pool must be screened. Screening is the process of assessing students' strengths and needs. Ford states that assessment "tells us not only whether the child is gifted, but in what ways he/she is gifted so that we can meet not only academic needs, but social, emotional, and psychological needs as well" (cited in Gubbins, 1995, p. 19).

NAGC (1998) points out that when assessing students, a school district must measure a diversity of abilities, talents, and strengths. Multiple screening instruments must be used, so that a student cannot be denied admission to the gifted and talented program based on one single assessment. All screening instruments should be based on current research and theory, and their reliability and validity must be proven.

Experts and educational agencies offer many proven models of screening instruments to help determine students' strengths. *Templates for Identification and Programming*, published by the Wisconsin DPI, contains inventories, which list skills, behaviors, and traits that are characteristic of gifted children. The inventories are to be given to teachers and parents, who rate the extent to which a student displays each of these characteristics (Benson, 1994).

Furthermore, NAGC (1998) recommends developing a student assessment profile of strengths and needs. This profile should include the student's performance levels, interests, learning styles, and educational needs. The Total Talent Portfolio developed by Renzulli (*The total talent portfolio*, n.d.) is this type of profile. The Total Talent Portfolio is intended to demonstrate a student's abilities, interests, and learning styles. The student is to select what is included in the portfolio and is responsible for maintaining and updating it. Typically, the portfolio will contain status information, information about the student's interests and learning styles, and action information. Status information

includes grades, test scores, and teacher ratings, as well as other student records. As for information regarding the student's personal interests and learning styles, Renzulli suggests using data from inventories, such as *Interest-A-Lyzer* and *The Learning Styles Inventory*. Action information includes samples and analyses of the student's work.

Admission.

After the screening has been completed and all the assessment data has been recorded for a student, the school district must decide whether or not the student is eligible for admission into the gifted and talented program. Wisconsin DPI dictates that admission be based on multiple measures. Screening results are measured by weighting or ranking the data from the standardized tests, teacher and parent inventories, and any other forms of assessment that have been done. The scores derived from the weighting or ranking are compared with previously set minimum score requirements in each of the respective areas of assessment. If a student meets the minimum required score in even one area, s/he qualifies for admission. The state allows individual school districts to set their own minimum requirements but demands a written plan for all admission procedures (Grover, 1987). This is consistent with NAGC standards (1998), which indicate that informed consent, student retention, student reassessment, student exiting, and appeals procedures must be in writing and made available to the public.

Individual Programming Plan

The school district must develop an individual programming plan for each student who has been admitted into the gifted and talented program. The individual programming plan should serve as a guide and document for the special services that the student receives as part of the gifted and talented program. There are a few basic steps that can be

followed when developing an individual programming plan. The first is to identify the student's strengths and interests as well as the academic, social, and emotional needs that have been determined through the screening procedure (Benson, 1994; Maker and Nielson, 1996; School District of Glenwood City, 1996).

The second step is to define a set of objectives that the student is expected to achieve, along with the various activities that s/he will do to achieve them. The objectives should be based on a comprehensive scope and sequence that is determined by modifying and adding to the regular curriculum in order to the meet the individual's needs. The types of activities should be determined by examining a wide range of programming options based on current research in gifted education (Benson, 1994; Maker and Nielson, 1996; School District of Glenwood City, 1996). Various programming options are discussed in the following section of this chapter.

The procedures for monitoring and evaluating the student's work are identified next. This should include the people who will be involved in monitoring and evaluating the student's progress as well as the criteria that will be involved in determining the extent to which the student has met the specified objectives. This should also include a timeline for the completion of the activities and objectives. The timeline should indicate when the student will be given time to work on the activities, as well as when s/he will meet with the appropriate people to discuss his/her progress (Benson, 1994; Maker and Nielson, 1996; School District of Glenwood City, 1996).

The last step is listing the resources that the student may need in order to complete the activities and meet the objectives. This should include people, materials, technology, and locations. Examples of people who might be involved are teachers,

administrators, librarians, and community members. Materials might include books, art supplies, computer software, and audio/visual equipment. The technology resources include the hardware, software, equipment, and services needed. As for the locations, a variety of areas within the school and outside of the school might be used (Benson, 1994; Maker and Nielson, 1996; School District of Glenwood City, 1996).

The gifted and talented coordinator, regular classroom teacher, and parents should all be involved in the development and approval of the individual programming plan. If possible, the school psychologist or counselor and an administrator should be included as well. Regular conferences should be held to review the progress and effectiveness of the plan, and the plan should be revised as needed (Benson, 1994; Maker and Nielson, 1996; School District of Glenwood City, 1996).

Programming Options for Gifted and Talented

A school district should use current research to develop the special programming that will be used to serve their gifted and talented students. Coleman and Gallagher (1995) have identified several basic guidelines for best practices in the education of gifted children. Providing them with a range of service options, a more rapid pace, differentiated curriculum, appropriate counseling and support, and time with other gifted students are a few. These practices can be achieved through the use of a number of programming options, such as enrichment, differentiation, acceleration, curriculum compacting, alternative curriculum, extra-curricular activities, and personal development.

Enrichment.

According to Davis, Rimm, Howley, Howley, and Pendarvis, enrichment is defined as “richer, more varied educational experiences, a curriculum that has been

modified or added to in some way" (cited in Schiever and Maker, 1991, p. 99). Numerous experts emphasize that enrichment involves greater depth. This means exploring topics in greater detail and with deeper understanding than is standard in the curriculum. Modifying the way in which topics are learned and offering topics that are not covered within the regular curriculum are enrichment practices as well. A quality gifted and talented program utilizes a variety of methods to achieve enrichment. Several examples are included in the following sections.

Differentiation.

Differentiation is the process of adapting the curriculum to provide unique learning opportunities at varying levels. When done well, differentiation not only meets the needs of gifted students but also satisfies the diverse needs of the other individuals in the classroom. There are three basic aspects of differentiation, which are widely noted by experts in gifted and talented education: content, process, and product.

Content is the material covered within a curriculum. Maker and Nielson (1996) express the importance of offering content to gifted and talented students that is "more abstract, more complex, and more varied than the standard curriculum" (p. 69). They advise the use of topics which will allow students to reach a deep understanding and make interdisciplinary connections. They also recommend including critical thinking skills and methods of inquiry as part of the content.

Process refers to the techniques and activities used to teach the content. Dinnocenti (*Differentiation*, n.d.) recommends the use of pedagogical strategies, such as the Socratic method, simulations, independent study, and higher level thinking questions. She also suggests engaging students in problem-solving activities, including researching,

brainstorming, identifying underlying problems, and developing action plans. These kinds of techniques allow the learning to be a generative process of discovery.

The third aspect of differentiation is product. The product is a tangible result of the content and process. In addition to the skills that have been learned, products should reflect students' interests, expression styles, and learning styles. Students should be allowed to choose the products they wish to create. When they are given a choice in how to express their learning, students are more motivated and produce higher level work (Kettle, Renzulli, and Rizza, *Exploring student preferences*, n.d.).

Along with Kettle and Rizza, Renzulli (*Exploring student preferences*, n.d.) developed *My Way... An Expression Style Inventory* as a means to determine the expression styles of individual students. The inventory lists 50 different products, which the student rates according to the extent in which s/he would be interested in creating that type of product. Each product is categorized into one of ten styles of expression. The scores are recorded on a table that shows the student's dominant style. Examples of products from each of the ten expression styles include writing an essay, giving a speech, painting a picture, designing a computer game, filming and editing a video, marketing an idea, working to help others, acting out a story, constructing a working model, and singing a song.

The manner in which the products are assessed is important as well. As Brown states, “If we're going to identify gifted and talented students through alternative methods and use unique or alternative strategies to teach them, then it would be inappropriate to use the traditional strategies to evaluate those students” (cited in Gubbins, 1995, p. 22) Rubrics, portfolios, checklists, self-evaluation, and evaluation by a real audience may

serve as some alternative methods of assessment (Dinnocenti, *Differentiation*, n.d.; Gubbins, 1995; Maker and Nielson, 1996).

Beyond these three basic aspects of differentiation, several experts also acknowledge learning environment and teacher role. Dinnocenti (*Differentiation*, n.d.) explains that a differentiated classroom environment has "a combination of interest and learning centers, study areas, computer stations, and work areas for artistic and scientific discoveries" (p. 4).

Gubbins (1995) states, "In designing challenging educational opportunities, we should raise the floor, remove the walls, and eliminate the ceiling on learning" (p. 40). This statement can be interpreted literally. The learning process can physically take place outside of the regular classroom. The library, computer lab, gymnasium, band room, kitchen, wood shop, and science lab are a few areas which can be utilized within the school. Factories, businesses, health care facilities, government agencies, museums, parks, and endless other locations within the community can serve as stimulating, educational settings as well.

The final aspect of differentiation is the role the teacher takes in the learning process. Tomlinson summarizes the teacher's role in differentiation when she asserts, "Teachers are not dispensers of knowledge, but organizers of learning opportunities" (cited in Dinnocenti, *Differentiation*, n.d., p. 2). Rather than simply presenting students with information, teachers should create situations where students can *discover* information.

Renzulli feels that in order to motivate students into exploring topics for themselves, teachers should "share personal knowledge of topics related to curriculum as

well as personal interests, collections, hobbies, and enthusiasm about issues surrounding content area" (cited in Dinnocenti, *Differentiation*, n.d., p. 3).

Differentiation allows gifted students to use their potential. They are able to take learning to their own level using their own style. They gain a sense of pride in what they produce in differentiated settings. Teachers benefit from this too, as students who feel positive about themselves and their school experiences are less likely to act inappropriately and more likely to be productive (Winebrenner, 1992).

Acceleration.

Acceleration, as described by Schiever and Maker (1991), is the speeding up of service and curriculum delivery. Service delivery acceleration is frequently referred to as advanced placement. Entering Kindergarten or college early, skipping a grade, and participating in a higher grade level for one or more specific academic areas are examples of accelerated service. In curriculum delivery acceleration, the curriculum is presented to gifted students at a faster pace while keeping the students in the same grade level as peers their age. Telescoping, where students complete two or more years' worth of work in one year, and self-pacing are techniques used to accelerate curriculum.

Research reported by VanTassel-Baska indicates four basic advantages to acceleration: "improved motivation, confidence, and scholarship; prevention of lazy mental habits; early completion of professional training; and reduction of the cost of education" (cited in Schiever and Maker, 1991, p. 101). Service delivery acceleration provides gifted students with levels of curriculum that may offer them more challenges, and it opens up the possibility for them to graduate and begin their professional development at a younger age. It also cuts down on the cost of education because

students are simply moved into existing programs, requiring no additional resources for developing and instructing the curriculum. Accelerating curriculum delivery benefits students because they are able to master material more quickly and learn more new material than they would have otherwise.

On the other hand, much criticism is also found regarding these practices. Schiever and Maker (1991) explain that acceleration is merely giving gifted students "the same but sooner and/or faster" (p.101). Gifted students receive the same curriculum as all other students; they just receive it earlier or at an increased pace. Nothing is done with the curriculum to accommodate for their strengths and help them to reach their full potential.

In addition, the research shows, "The belief exists that acceleration is responsible for social maladjustment or that it creates skill gaps in core areas" (Van Tassel-Baska, cited in Schiever and Maker, 1991, p. 102). Placing children into grade levels with peers older than them can be psychologically harmful. Very often, a child may not be socially, emotionally, or physically mature enough to fit in with older peers. Grade skipping, telescoping, and self-pacing can lead to missed skill development. A student may work through material too quickly to develop skills adequately, or s/he may not fully comprehend them as the learning is done primarily on his/her own. Other times, a student may not be exposed to certain skills because they are covered only in a grade level that the student has skipped.

For these reasons, careful consideration should be given when deciding to use acceleration. A psycho-educational evaluation to determine the child's levels of ability in

various academic and social areas could be a valuable tool when contemplating advanced placement.

Curriculum Compacting.

Curriculum compacting is the process of eliminating unnecessary work from the curriculum. Practice drills and other repetitious work that is used to teach skill mastery are often deemed unnecessary for gifted and talented students. The process of curriculum compacting is described by Reis and Renzulli (*Curriculum compacting*, n.d.) in three steps. First, the teacher must define the goals and outcomes of the content that is to be taught. Second, the teacher determines and documents which students have already mastered most or all of the outcomes. Third, the teacher provides enrichment activities for the students to work on during the time that has become available as a result of the curriculum compacting.

Renzulli and Smith have designed a form called *The Compactor*, which can be used to guide and document the process of compacting the curriculum (cited in Reis and Renzulli, *Curriculum compacting*, n.d.). This form organizes the process into the following categories: curriculum areas to be considered for compacting, procedures for compacting basic material, and acceleration and/or enrichment activities. When identifying the curriculum areas to be considered for compacting, the teacher takes an individual study unit in the student's area of strength and examines the objectives of the unit. If the teacher determines that the student may already have the skills needed to meet those objectives, it is an area to be considered for compacting. The teacher then decides on the procedures for compacting the basic material. This might be done by having the student complete a pretest, end-of-unit test, summary exercises, or a study guide. It is

essential to document here how the student has shown mastery of the objectives, in order to ensure that the student is not missing the development of any important skills.

Last, the teacher documents the acceleration and/or enrichment activities that the student will complete during the extra time that has been created. The student should take part in deciding what work will be done, so that it is meaningful. S/he might choose to accelerate to the next unit of study or to participate in any form of enrichment activity (Reis and Renzulli, *Curriculum compacting*, n.d.).

Curriculum compacting has numerous benefits for students and teachers. Any student who proves his/her mastery of the selected skills can participate; therefore; teachers do not have to justify why one student may not have to do the same work as the rest. Students do not have to waste their time doing work that is easy and redundant, so they are more likely to stay focused on their work and less likely to misbehave out of boredom. Finally, curriculum compacting does not punish students for getting work done early by simply adding on more work. Instead, students are "buying time" to do work that is more interesting and more challenging (Winebrenner, 1992).

Moreover, the University of Connecticut's National Research Center on the Gifted and Talented (NRC/GT) recently conducted a study on curriculum compacting, which demonstrates some positive results on academic achievement. The findings were as follows:

> When teachers eliminated as much as 50% of regular curricular activities and materials for targeted students, no differences were observed in post test achievement scores between treatment and control groups in math concepts, math computation, social studies, and spelling. In science, the students who had

between 40 to 50% of their curriculum eliminated actually scored significantly higher on science achievement post tests than their peers in the control group. And students in group one whose curriculum was specifically compacted in mathematics scored significantly higher than their peers in the control group on the math concepts post test. (cited in Reis and Renzulli, *Curriculum compacting*, n.d., n.p.)

Alternative Curriculum.

Another way to achieve enrichment is to offer an alternative curriculum, one that is independent from the regular curriculum. This can be done in numerous ways. The amount of time, the manner, and the setting in which a student engages in alternative curriculum vary significantly.

One possibility is independent study or independent contracting. Students can do independent study for an entire course in an area of interest that is not offered within the school district, or it can be done within the regular classroom for smaller units of study. According to Maker and Nielson (1996), in deciding when to use independent study, three factors need to be examined: "the degree and kind of freedom allowed, the student's abililty to manage or profit from the freedom given, and the teacher's ability to relinquish control of a part of the student's learning activities" (p. 121). The student and teacher can then determine if independent learning is an appropriate choice for the situation.

For independent study courses, a professionally developed scope and sequence or one that is developed by the student and teacher guides the student through the work. Generally, the student works in a resource room, such as a gifted and talented classroom, a library, or a computer lab, when participating in this type of study. The student sets

his/her own pace, but it is important that a teacher or mentor monitors progress closely since many students may lack the self-discipline necessary to succeed.

When independent study is done within the regular classroom, it is usually developed with a contract. This is a good option to use when curriculum compacting has been done. Cline and Schwartz (1999) list several steps to make this type of independent study a successful experience. Among them are the following: the student selects the topic to be studied; the teacher guides the student as the student designs the study and formulates questions; the student learns the skills necessary to research the topic; the teacher and student locate resources; the student conducts the research; the teacher assists when necessary; the student designs the way in which s/he communicates what has been learned; the student assesses what has been accomplished; and the teacher helps seek appropriate audiences for completed projects. This system enables the student to complete work in a manner that fits his/her learning style and level of ability.

Research reviewed by Zimmerman and Martinez-Pons regarding independent study programs indicates the following finding:

> Independent study programs . . . have a positive influence on (a) motivation and increased excitement about learning; (b) helping students choose future careers and college majors; (c) study habits and thinking processes, such as organizing and focusing thoughts, developing strategies, increasing critical and creative thinking; and (d) the development of a highly challenging and satisfying learning environment. (cited in Maker and Nielson, 1996, p. 126)

As another option, students may enroll in special classes. School districts can provide access to the Internet, distance learning labs, universities, technical colleges,

government agencies, and independent organizations, through which students can participate in courses that are not offered by their school. These opportunities enable gifted students to pursue their areas of interest to a degree of depth that is not possible within the regular curriculum.

A school district may also offer special classes through pull-out programs. Individual or groups of gifted students may be pulled out of the regular classroom for specialized instruction in one or more specific academic areas. Typically, the gifted and talented teacher develops a scope and sequence based on the students' needs and interests. Burton-Szabo (1996) believes that these types of classes allow gifted students to "work at their level, . . . use their creativity in unique ways, and have a teacher who understands their particular needs" (p. 12). Moreover, she feels that it gives them an important opportunity to interact with similar gifted students. Many school districts, however, minimize the amount of time gifted students are pulled out of the regular classroom because it diminishes opportunities for them to practice social skills in heterogeneous groups.

Extra-curricular Opportunities.

Many school districts offer a variety of locally and nationally sponsored extra-curricular opportunities. Local activities range from athletics to art, music, drama, business, and much more. A few examples of national competitions are Invent America, Odyssey of the Mind, Future Problem Solving, Kids are Authors Competition, and National Olympiads in Math, Language Arts, Science, Geography, and Social Studies (Kessler, 2000, p. 18).

The basic characteristics of extra-curricular activities, as described by Renzulli (*The Definition of High-End Learning*, n.d.), are as follows: students select an area in which they wish to participate, they produce a product or service for an audience, and they use the same methods as professionals to produce the product or service. Gifted students can heighten their strengths by becoming involved in extra-curricular activities in areas that interest them. These activities also afford them the opportunity to develop positive social skills, such as cooperation and sportsmanship, and may give them a sense of belonging.

Summer and weekend programs sponsored by many gifted and talented associations and universities are available as well. Research from Purdue University's Gifted Education Resource Institute concludes that participating in these types of programs provides gifted students with "challenging instruction, faster pace, higher conceptual levels, talented teachers who evoke high-level expectations, interaction with challenging peers, a wide variety of topics of study, and in-depth research and investigation" (cited in Feldhusen, 1991, p. 197).

Personal Development.

Personal development services, though often neglected, are fundamental in meeting the special needs of gifted and talented students. Personal development focuses on the social and emotional needs of gifted individuals. According to Colangelo (1991), gifted students often have unique social and emotional needs, which create problems in family and peer interactions, and daily school life.

Specifically, Kerr (1991) notes that gifted children experience difficulty coping with stress-related problems, depression, perfectionism, and problems in relationships

and that gifted underachievers frequently demonstrate social immaturity, anti-social behavior, and low self-concept. Therefore, it is essential that guidance in such areas be offered to gifted and talented individuals.

Piechowski (1991) asserts, “When introducing gifted people, and those who live and work with them, to concepts [of development] there is often an instant recognition and a sense of relief” (p. 287). Accordingly, a school district should provide opportunities for gifted students, their parents, and their teachers to learn about and discuss the emotional development of gifted children. This can be achieved through individual, group, and family counseling, along with conferences and informational meetings.

Individual counseling is strongly recommended for gifted and talented students. In order to address the issue of self-concept, Colangelo (1991) suggests that, when meeting with gifted individuals, counselors should raise questions, such as, “What does it mean to be gifted? What do I like about being gifted? If I were not gifted, what would be better for me? It I were not gifted, what would be worse for me?” (p. 275). An agenda of other issues to discuss is determined by the counselor, together with the gifted child, according to the child's individual needs.

Group counseling is also highly suggested. Here, the counselor works with small groups of gifted students to improve interpersonal relationships. This setting gives gifted students an opportunity to express how they feel about being gifted, and how they think others perceive them. In addition, they can explore and share their moral thinking (Colangelo, 1991). Realizing that there are others who experience the same or similar feelings helps gifted children cope with their own.

Meeting the emotional needs of gifted children involves family counseling as well. As Silverman (1991) points out, many parents feel inadequately prepared to raise a gifted child. A school district can help parents understand their gifted child's emotional development by offering informational meetings on various gifted and talented issues, and by maintaining consistent communication regarding the child through regular conferences. When parents understand reasons for their child's behavior, they have a better idea of how to respond to it.

Colangelo (1991) explains that the structure of school counseling programs for gifted and talented students could be remedial or developmental. In the remedial approach, the counselor becomes involved when problems arise. In a developmental approach, the counselor holds frequent individual, family, and teacher consultations and offers a program of activities that are based on the affective and cognitive needs of youngsters. Colangelo advises that a school district utilize a developmental counseling program, as he believes "giftedness is not a problem to be solved but a unique challenge to be nourished" (p. 282).

Rimm (1991) explains a few specific interventions that may be included in a guidance program for gifted underachievers. One is to identify a role model or mentor. Careful selection of a role model is important, as s/he may have a powerful impact on the gifted child. An appropriate role model should have all or nearly all of the following traits: nurturance, same sex, similarities to the child, openness, willingness to give time, and a sense of positive accomplishment. Setting short- and long-term goals is another possible intervention. The goals should be attainable, and successes should be rewarded with meaningful and consistent rewards.

Another aspect of personal development is career guidance. Gifted students have unique needs here too. One issue they may struggle with is multipotentiality, or the ability to succeed in a number of different fields. In addition, gifted students may struggle with expectations from others. Since gifted children are so capable, others often have higher expectations of them. One more issue that may be difficult for them is finding the advanced training that is required for certain careers they may wish to pursue (Colangelo, 1991; Kerr, 1991). It is difficult for a gifted student to make a career choice when s/he has many areas of interest and ability and many people influencing his/her decision, yet little opportunity to receive training. For these reasons, a school district must offer concrete career guidance.

Kerr (1991) cites a study that emphasized the positive results that came from counseling gifted students on values. The findings show that counseling on the clarification of values, and specific goal setting on the basis of values, helped students make clear career decisions. Furthermore, Kerr discusses the need for counselors to be able to access information on advanced training opportunities. Counselors should have contacts within colleges and universities, who may be able to inform them of training opportunities in specialized areas. She also emphasizes that counselors should be careful not to discourage gifted students from pursuing a certain career simply because of the challenges in receiving the training.

Administration of Gifted and Talented Services

The administration of gifted and talented services requires careful planning and organization. A school district must follow a clear set of standards based on a defined

philosophy and mission statement. NAGC recommends the following standards for program administration, management, and design.

First, teachers must be appropriately trained in the education of gifted and talented students. In order to identify, assess the needs of, and differentiate for gifted students, teachers must have an understanding of the characteristics of gifted individuals and how their needs can be met (NAGC, 1998).

According to Wade, research regarding professional development indicates that training involving teachers in K-12 is more effective than limiting staff to grade levels. The research also that observations of classroom practices, micro-teaching, video/audio feedback, and practice are the most effective training techniques to use in professional development (cited in VanTassel-Baska, 1992).

Next, there must be a connection between the gifted and talented services and general education schoolwide. The gifted and talented program cannot operate independently from the regular classroom programs. The gifted program coordinator should work with the classroom teachers to help them carry out individual programming plans within and outside of the classroom. The coordinator should also work with administrators to develop provisions for gifted and talented services (NAGC, 1998). Several experts recommend developing committees or teams, which focus on the development of gifted and talented curriculum throughout the district (VanTassel-Baska, 1992; Renzulli and Reis, *The schoolwide enrichment model*, n.d.).

Along with that, there must be a positive working relationship established with parents, community, and advocacy groups through ongoing communication. Parents should be informed and consulted regularly about the services their children are

receiving. The district should establish a committee, consisting of staff members, parents, students, and community members, to advise the program. Moreover, coordinators should take advantage of various organizations, such as other school districts, universities, government agencies, and associations, which advocate gifted and talented education (NAGC, 1998).

The district must also provide diverse resources and materials, technological support, and adequate funding. A variety of resources and tools, including updated technology, and sufficient funding are necessary in order to develop differentiated learning opportunities. The resources should be based on current research and theory and must be made easily accessible within the district. The funding should be equitable to that of other programs within the district (NAGC, 1998).

The program must have a comprehensive and sound base, including outside review, a philosophy statement with goals and objectives, and a continuum of services covering grades pre-K-12. The gifted and talented program and its philosophy, goals, and objectives should be based on current research regarding gifted education. The program should include policies regarding identification, individual programming, teacher training, evaluation, support services, and parent involvement. There should be clear and continuous documentation of the practices that are carried out within the district. The services offered through the gifted and talented program must be available in all content areas and at all grade levels (NAGC, 1998).

The district must also provide flexible grouping of gifted students. Gifted students must be allowed to learn with and from other gifted students. Scheduling must be arranged so that they can be grouped together throughout all content areas and grade

levels (NAGC, 1998). Kulik and Kulik (1991) state, "The evidence is clear that high-aptitude and gifted students benefit academically from programs that provide separate instruction for them" (p. 191).

Finally, there must be flexibility from the administration for making special accommodations, which are not typical in the sequence of general education. School policies must include provisions for gifted education, such as early entrance, grade skipping, and enrollment in special courses (NAGC, 1998).

Evaluation of Gifted and Talented Programs

A school district must evaluate the effectiveness of their gifted and talented program to ensure that it upholds the philosophy, mission statement, and standards that are defined by the district. NAGC (1998) prescribes that a formal evaluation should be done in a purposeful, efficient, economic, competent, ethical, and public manner.

To begin with, an evaluation must serve a purpose or be meaningful to those for whom it is conducted. A meaningful evaluation of a district's gifted and talented program will reflect the interests and needs of the students, parents, community members, staff members, administration, and school board. In particular, it should address questions raised by those most directly involved in the program (NAGC, 1998). Therefore, it is essential to gather information prior to beginning an evaluation and to determine which issues need to be addressed.

The National Research Center on the Gifted and Talented (NRC/GT) emphasizes evaluation in the areas of identification, learning opportunities, and professional development. In evaluating the identification process of a gifted and talented program, a school district should try to determine if their approach is "a comprehensive, defensible

approach that is sensitive to the student populations of [the] district" (Gubbins, 1995, p. 24). Specifically, NRC/GT recommends analyzing the ways in which a district can include portfolio assessment, parent and peer data, and performance-based assessment. When evaluating the learning opportunities that are offered to gifted and talented students, a school district should examine the level of challenge in the curricula, the documentation for differentiation, and the curriculum alignment and assessment procedures. For the evaluation of professional development, a school district should assess what kind of training activities are done in gifted education, how much time is given for them, and what resources are available to aid in the training and implementation of gifted and talented services.

Once a school district has determined which issues will be covered in the evaluation, the district must find a way to provide adequate time, financial support, and personnel to conduct it efficiently and economically (NAGC, 1998). A district may try to secure grant money in order to provide the financial support needed.

More importantly, the evaluation must be done competently and ethically. The persons conducting the evaluation must be trustworthy and should have expertise in gifted and talented education. The evaluation must be designed so that it identifies the strengths and weaknesses in the program and any critical issues that may affect the program. The instruments and procedures used to collect the data must be proven for validity and reliability. A school district should especially take notice of whether the instruments are appropriate for varying age, developmental levels, gender, and diversity. The district should also ensure that the data collected is kept confidential.

Finally, the evaluation must be made public. A written report with clear and cohesive information must be made available to the entire school district, including students, parents, community members, staff, administration, and the school board. Along with the results, the report should include recommendations for follow-up procedures, which the district can take to improve the effectiveness of their gifted and talented program (NAGC, 1998).

CHAPTER 3

Summary, Conclusions and Recommendations

Summary

Success in educating gifted and talented students depends upon the proper identification of gifted and talented students, a variety of quality programming options, the effective administration of gifted and talented services, and a meaningful evaluation of the gifted and talented program.

Certain challenges exist in the implementation of a gifted and talented program for small rural school districts. In many cases, districts of this size do not have full time gifted and talented coordinators, making it especially difficult to develop and deliver the needed services. Therefore, the majority of individual programming is usually done within the regular classroom. Managing this requires a great deal of time and organization, and the teachers generally do not have the proper training to be successful at it. Furthermore, special programming requires additional resources, which small rural districts oftentimes cannot fund.

Conclusions

Properly identifying gifted and talented students is the first step in providing them with an appropriate education. This can be a difficult task. Bright students are often confused for gifted, and gifted underachievers are often overlooked. Educators need to become familiar with the characteristics of gifted children. It is not appropriate to merely look at a child's IQ to determine if s/he is gifted. Standardized test scores and other student records do not necessarily reflect a child's talents. It is important to understand a student's needs and interests as well his/her academic ability. School districts must use an

identification process that involves comprehensive assessment of students. Using a variety of data, including performance data, portfolio assessment, and parent input, can be valuable in recognizing a child's strengths and determining his/her special needs.

In order to effectively educate gifted and talented students, regular classroom teachers need to receive appropriate training in gifted and talented education. In general, highly capable students are mainstreamed along with the other students in the school. Therefore, it is important for teachers to have an understanding of their gifted students' needs and how to make accommodations for them. A number of the programming options presented in this study are designed to be used within the regular classroom. Specifically, enrichment, differentiation, acceleration, curriculum compacting, and independent contracting can help gifted and talented students to reach their potential.

In addition to using programming options within the regular classroom, school districts need to make special provisions for gifted and talented students. This study explored options, such as advanced placement, independent study, special classes and programs, and personal development, which serve gifted students' needs in a setting outside of the regular classroom. Highly capable students should be given these opportunities.

As a whole, professional literature does not focus on specific programming options that are particular to small rural school districts. There is little or no distinction in the guidelines for educating gifted and talented students based on the size and socio-economic status of the school district. Therefore, research is needed, which investigates challenges in and offers specific recommendations for educating gifted and talented students in school districts of small rural socio-economic status.

Recommendations

Based on the findings in this study, the following recommendations are offered to the School District of Glenwood City.

1. Review the philosophy, mission statement, and standards for the Gifted and Talented Program with the entire school faculty.
2. Provide professional development in gifted and talented education to the entire school faculty annually.
3. Increase the Gifted and Talented Coordinator's position to full time.
4. Establish an advisory committee consisting of students, parents, community members, staff members, and administrators.
5. Encourage annual nominations for identifying Gifted and Talented students.
6. Increase communication between the Gifted and Talented Coordinator and regular classroom teachers and provide more time for their collaboration.
7. Increase communication with parents and encourage their involvement in the Gifted and Talented Program.
8. Encourage regular classroom teachers to use enrichment, differentiation, acceleration, curriculum compacting, and alternative curriculum within the regular classroom.
9. Encourage regular classroom teachers to use the resources that are available through the Gifted and Talented Program.
10. Include more provisions for Gifted and Talented services, such as advanced placement, special enrollment, and pull-out programs.

11. Increase opportunities for personal development, including social, emotional, and career guidance.
12. Provide more information to students and parents regarding extra-curricular opportunities within and outside of the school district.

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