

AN EVALUABILITY ASSESSMENT OF AN ELEMENTARY SCHOOL  
GIFTEDNESS PROGRAM FOR THIRD THROUGH FIFTH GRADE STUDENTS

A DISSERTATION

SUBMITTED TO THE FACULTY

OF

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OF

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BY

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## ABSTRACT

School-based programs for gifted students are infrequently evaluated, which leaves these programs vulnerable to questions of efficacy (Borland, 1997). School psychologists are in a key position to provide expertise on program design, implementation, and evaluation. A public elementary school giftedness program was selected to demonstrate the procedures of program evaluability assessment, a type of program evaluation. These procedures include involving key stakeholders, clarifying the intended program's mission, goals, resources, and activities, exploring program reality, and identifying needed program changes (Wholey, 2004). School psychologists may also be called upon for their knowledge of giftedness theories and methods for identifying and educating gifted students based upon training in cognitive abilities and assessment. A review of the literature regarding giftedness is presented, including theories of giftedness and methods for identifying and educating gifted students. Renzulli's theories and methods are highlighted, as they were the basis for the giftedness program being studied. Additionally, literature is presented regarding evaluability assessment, including the purpose and goals of conducting such an assessment, as well as the procedures to be used. Interviews with key stakeholders, observations, and review of programmatic documents led to the creation of a logic model, a diagram which visually details how a program functions by delineating the resources, activities, and outputs of a program, and the short-term, intermediate, and long-term outcomes which the program is expected to yield. This evaluability assessment found that the intended program and the program reality were closely matched. Areas for program change were identified, including a need for quantifiable outcome measures, adding standardized identification procedures

for student admission to the program, and a standardized overall curriculum to ensure that the education of students can continue regardless of who the giftedness facilitator is within the school district.

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# TABLE OF CONTENTS

	PAGE
ABSTRACT	
ACKNOWLEDGEMENTS	
LIST OF TABLES	
CHAPTER	
I    DESCRIPTION OF THE PROBLEM.....	1
Introduction.....	1
Purpose of this Dissertation.....	2
Context for Programmatic Study.....	4
The Giftedness Program.....	4
The Township.....	5
The School District.....	6
The Elementary Schools.....	7
Conclusion.....	8
II   THE NATURE OF GIFTEDNESS.....	9
Introduction.....	9
What is This “Thing” They Call Giftedness? .....	9
Theories of Giftedness.....	11
Binet, Terman, and the Origins of Intelligence Testing.....	11
Schoolhouse versus Creative-Productive Giftedness.....	12
Renzulli and the Three Ring Conception of Giftedness.....	15
Gardner and the Theory of Multiple Intelligences.....	18
Sternberg and the Triarchic Theory of Human Intelligence.....	21
Identification of Gifted Children.....	26
Standardized Tests.....	26
Measuring Creativity.....	27
Identifying Giftedness Based Upon Specific Models.....	28
The Revolving Door Identification Model (RDIM).....	30
Educating the Gifted Student.....	32
Curriculum Alterations.....	33
The Enrichment Triad Model.....	35
The Schoolwide Enrichment Model.....	38
Concluding Thoughts on Giftedness.....	41



III	EVALUABILITY ASSESSMENT.....	42
	Introduction.....	42
	A Call for Program Evaluation.....	42
	History, Purpose, and Goals of Evaluability Assessment.....	45
	Creating a Logic Model.....	46
	Procedures and Steps of an Evaluability Assessment.....	48
	Step 1: Involve Intended Users of Evaluation Information.....	50
	Step 2: Clarify the Intended Program.....	51
	Step 3: Explore Program Reality.....	51
	Step 4: Reach Agreement on Any Needed Program Changes.....	52
	Step 5: Explore Alternative Evaluation Designs.....	52
	Step 6: Agree on Evaluation Priorities and Intended Uses of Information .....	52
	Concluding Thoughts on Evaluability Assessment.....	53
IV	METHODS.....	54
	Introduction.....	54
	Background.....	54
	Stakeholder Roles.....	55
	Giftedness Teacher.....	55
	Building Principals.....	60
	Superintendent and Assistant Superintendent.....	60
	Procedures.....	61
	Observations.....	61
	Review of Program Documents.....	61
	Stakeholder Semi-Structured Interviews.....	62
	Conclusion.....	63
V	RESULTS.....	64
	Introduction.....	64
	Methods.....	64
	Stakeholder Semi-Structured Interviews.....	64
	Review of Program Documents.....	65
	Observations.....	66
	Use of the Evaluability Assessment Procedures.....	66
	Step 1: Involve Intended Users of Evaluation Information.....	67
	Step 2: Clarify the Intended Program.....	67
	Step 3: Explore Program Reality.....	73
	Step 4: Reach Agreement on Any Needed Program Changes.....	76
	Conclusion.....	77

VI DISCUSSION AND IMPLICATIONS.....	78
Introduction.....	78
Areas for Improvement.....	78
Standardize the Identification Process.....	78
Create Quantifiable Outcome Measures.....	81
Address Issues of Sustainability.....	82
Implications for School Psychologists.....	84
REFERENCES.....	87
APPENDIX A.....	92
Interview Protocol for Stakeholders.....	92
APPENDIX B.....	94
Consent Form to Superintendent.....	94
APPENDIX C.....	96
Consent Form for Interviews.....	96

## LIST OF TABLES

1. Selection Procedure Sequence for Entry into the Giftedness Program.....pg 59
2. Logic Model of the Giftedness Program.....pg 69

## CHAPTER I

### DESCRIPTION OF THE PROBLEM

#### Introduction

According to the United States Department of Education, America's schools serve approximately fifty-six million students in both public and private school settings ([www.ed.gov/about/overview/fed/role.html](http://www.ed.gov/about/overview/fed/role.html), 2008). The National Association for Gifted Children reports that three million gifted students are in America's classrooms today (<http://www.nagc.org/index.aspx?id=31>, 2008). By these numbers, more than five percent of the current population of America's school children are considered to be gifted.

In the state of New Jersey, census information from 2005 indicates that more than 1.5 million children are between the ages of five and eighteen (US Census, 2005). Although New Jersey does not require school districts within the state to collect and report their numbers of identified gifted students, using the five percent estimate discussed above, it may be surmised that more than 75,000 students may be considered gifted in New Jersey's schools.

As such, the New Jersey State Board of Education has adopted legislation to address the needs of this population. According to the New Jersey State Gifted and Talented Requirements (2006), gifted and talented students are:

Those students who possess or demonstrate high levels of ability, in one or more content areas, when compared to their chronological peers in the local district and who require modification of their educational program if they are to achieve in accordance with their capabilities.

([http://www.nj.gov/education/aps/cccs/faq\\_gandt.htm](http://www.nj.gov/education/aps/cccs/faq_gandt.htm))

To meet the unique needs of these students, public schools are required to have board-approved gifted and talented programs. Students are selected for these programs using multiple measures which compare students with peers in their school district ([http://www.nj.gov/education/aps/cccs/faq\\_gandt.htm](http://www.nj.gov/education/aps/cccs/faq_gandt.htm), 2006). Additionally, districts must develop modifications to their curriculum and instruction for their gifted students. As such, it has been the researcher's experience that school districts within New Jersey are creating new gifted and talented programs or improving upon existing programs to meet these requirements.

#### Purpose of this Dissertation

The purpose of this dissertation is to conduct a program evaluability assessment of a recently created gifted and talented program in one New Jersey school district. Smith (1989) defines an evaluability assessment as "a method for examining a program...to assess its structure, to determine plausibility of the program achieving intended goals, the evaluability of those goals, and the utility of implementing further evaluation of the program" (p. 11). This dissertation will demonstrate the steps of an evaluability assessment to determine if the gifted and talented program in the selected school district is prepared for future program evaluation.

A gifted and talented program was selected as the model to demonstrate an evaluability assessment because school psychologists may play a large role in the

education of gifted students. School psychologists may be called upon for their knowledge and training of students with special educational needs. Additionally, school psychologists are in a position to be instrumental in creating the selection criteria for a gifted and talented program, as well as screening students once criteria are agreed upon. In discussing the multiple measures to be used to identify gifted and talented students, the New Jersey requirements enumerate achievement tests and intelligence tests as two possible means to identify students. Clearly, school psychologists can play a role in the identification of gifted students because they are trained to administer, score, and interpret these tests.

According to *The Guidelines for the Provision of School Psychological Services* (NASP, 2000), school psychologists are expected to conduct program planning and evaluation activities, as well as to play a role in the design and delivery of curriculum. Guideline 7.3 states, "School psychologists shall develop, implement, and evaluate prevention and intervention programs." In discussing evaluation, guideline 4.9 says, "School psychologists evaluate interventions...These include the skills necessary both to evaluate the extent to which the intervention contributed to the outcome and to identify what constitutes a "successful" outcome." Additionally, guideline 1.4 states, "School psychologists use appropriate assessment information to evaluate interventions to determine their effectiveness, their need for modification, or their need for redevelopment." Finally, guideline 3.5 discusses school psychologists' role in creating curriculum. According to this guideline, "School psychologists assist in the design and delivery of curriculum to help students develop behaviors to support effective learning." Thus, this dissertation will inform school psychologists about program evaluation and the

evaluability process, as well as about theories of giftedness, identification of gifted students, and educational programming for gifted children.

Context for Programmatic Study: An Elementary School Giftedness Program for Third  
Through Fifth Grade Students

The Giftedness Program

During the early 1990's, a gifted and talented program was run in the school district. However, for approximately ten years prior to 2006, no formal giftedness program was in place. Instead, the former gifted and talented teacher taught science enrichment lessons (which were comprised of hands-on science experiments) to the general education classes in second, third, and fourth grade. During the 2005 to 2006 school year, parents in the school district began to pressure the district to implement a more formalized giftedness program, citing that the district's current science enrichment program was not sufficient based upon the recently issued New Jersey State Gifted and Talented Requirements. During the spring of 2006, the superintendent of schools hired a new teacher to serve as the gifted and talented facilitator for the district (the former teacher continues to teach science enrichment). The facilitator was charged with attending a workshop led by Joseph Renzulli at the University of Connecticut, a leading researcher in the education of gifted children (whose theories will be further discussed in the literature review). This teacher was then put in charge of creating a curriculum guide for the education of elementary aged gifted students in this district. The curriculum guide was completed and approved by the district's board of education in July of 2006, and was put into effect for the 2006-2007 school year. The giftedness program is led by the gifted

and talented facilitator, who is supervised by the principals of the elementary schools in the district. These principals each serve on the giftedness selection committee for their school, and thus play an integral part in selecting students and overseeing the giftedness program's implementation.

According to the mission statement of the Giftedness Program, students who are identified for the program are provided with a non-graded learning experience that is designed to meet the needs and interests of each student. The program provides enrichment opportunities for each student in the following areas: critical thinking, problem solving, inquiry, divergent thinking, creative thinking, and productive thinking. In order to accomplish this mission, identified students leave their regular education classrooms for two forty minute sessions each week and meet with other identified students from their grade with the giftedness teacher. Renzulli's Enrichment Triad Model is the basis for activities completed in the program, which will be discussed in the literature review in Chapter II.

### The Township

The town in which the giftedness program is located is a small, suburban community with a total population of 14,597 persons, according to the 2000 census. The actual town is composed of 4.3 square miles of land, 98% of which is occupied. 15.6% of the population are between ages 5-17, accounting for more than 2,200 school-aged residents. More than 95% of the population identifies as white, compared with a national average of 75%. Those who do not identify as white identify as Asian (2.8%), African American (0.3%), other (0.6%), and two or more race (0.7%). In their homes, 84% of residents report speaking English only. The median household income in 1999 was



\$65,019, while by 2005, this number rose to \$73,500. In comparison, the New Jersey median household income in 2005 was \$61,672. The median value of a home in this town in 2000 was \$217,500. This number skyrocketed to \$427,500 as of 2005. In comparison, the New Jersey median value of a home in 2005 was \$333,900. The 2000 census reports that only 1% of families in this town were living below the poverty level compared with a national average of 9.2% for the same time period. Of the homes in this town, 18.5% were occupied by renters at the time of the 2000 census, compared with a state average of 34%. In terms of level of education attained by the populace in this town, 88.1% of residents over age 25 were high school graduates, while 28.2% held Bachelor degrees. These numbers are slightly higher than the national average of 80.4% for high school diplomas and 24.4% for four-year college degrees.

#### The School District

The school district in this town is composed of four public schools: a high school serving students in grades nine through twelve, a middle school serving students in grades six through eight, and two elementary schools serving grades kindergarten through fifth. According to the New Jersey School Report Card for 2005-2006, this district spent an average of \$11,961 per student, which is about \$1000 less than the state average; however, New Jersey historically spends more per student than all other states. For example, from 1999 to 2000, New Jersey was the leading per student spender with an average of \$10,337, compared with a then national average of \$6,911. The median salary for faculty in the district was \$51,310 during the 2005-2006 school year. During this same time, the average teacher in the district had eight years of teaching experience.

### The Elementary Schools

The elementary schools in the district served just over 1,000 pupils from 2005-2006. While the school day was six hours and twenty-five minutes long, students engaged in five hours and twenty-five minutes of instructional time, which is fifteen minutes less than the state average. The average class size at these two schools was 24.1 and 23.1 students per classroom, compared with a state average of 19.2.

Despite slightly less instructional time and larger class sizes, students within these schools earned higher scores as compared with other New Jersey schoolchildren on the New Jersey Assessment of Skills and Knowledge (NJASK), which is a standardized test given to third, fourth, and fifth grade students across the state (New Jersey School Report Card, 2006). On this test, students' performance in Language Arts Literacy and Mathematics is scored as either "Partially Proficient," "Proficient," or "Advanced Proficient." This is based upon a scale from 100-300, in which "Partially Proficient" refers to all scores below 200, "Proficient" indicates scores from 200-249, and "Advanced Proficient" is given to scores of 250 and above. The standards set forth by the state of New Jersey expect students to score in one of the latter two areas ([http://www.nj.gov/education/assessment/es/sample/reports/ISR\\_gr4\\_FINAL.pdf](http://www.nj.gov/education/assessment/es/sample/reports/ISR_gr4_FINAL.pdf), 2005).

In the area of Language Arts Literacy, 86.4% of the elementary school students in the district were Proficient, 5.3% were Advanced Proficient, and 8.3% were Partially Proficient during the 2005-2006 school year. In comparison, 78.2% of third through fifth grade students in the state of New Jersey earned Proficient scores, 6% earned Advanced Proficient scores, and 15.7% earned Partially Proficient scores.

In the area of Mathematics, 50.7% of the elementary school students in the district were Proficient, 42.4% were Advanced Proficient, and 6.9% were Partially Proficient during the 2005-2006 school year. In comparison, 50.5% of third through fifth grade students in the state of New Jersey earned Proficient scores, 34.8% earned Advanced Proficient scores, and 14.6% earned Partially Proficient scores. Overall, based upon students' New Jersey Assessment of Skills and Knowledge scores, students in the elementary schools in this district are meeting their "adequate yearly progress" goals, which is a New Jersey state benchmark for student proficiency under the *No Child Left Behind (NCLB) Act* (<http://www.gpo.gov/fdsys/pkg/PLAW-107publ110/pdf/PLAW-107publ110.pdf>, 2002).

### Conclusion

To better understand the nature of giftedness and educational programming for gifted students in the context of an evaluability assessment, the following chapters will review relevant literature. Chapter II will provide a review of giftedness literature, and will discuss theories of giftedness and methods for identifying and educating gifted students. Chapter III will provide a literature review of evaluability assessment, including a brief history of evaluability assessment, as well as the purpose, goals, and process of conducting such an assessment. Chapter IV will outline the methods used in conducting this study, as well as the roles of the relevant stakeholders related to the giftedness program. It is the researcher's intent that this study will shed light on giftedness programming in the context of an evaluability assessment.

## CHAPTER II

### THE NATURE OF GIFTEDNESS

#### Introduction

In this chapter, a number of theories regarding the nature of giftedness will be discussed. Following this, various methods for identifying gifted children will be presented, and the chapter will conclude with a review of some models for the education of gifted students. The goal of this chapter is to provide a relatively brief review of some of the more well known theories from the giftedness literature; however, it should be noted that this chapter cannot provide anywhere near an exhaustive review of the materials which have been published on the topic of giftedness for the past century.

#### What is This “Thing” They Call Giftedness?

The concept of giftedness has been defined and debated for nearly a century. What makes one person gifted and another not? In what areas must someone excel in order to be termed gifted? How is giftedness quantified? Many scholars have considered these questions and offered answers based upon their research and beliefs. According to Borland (2005), giftedness as a construct did not come into existence until the 1910's. It was created at this time due to sociocultural, sociopolitical, and historical forces, including the mental testing movement, new diversity in America's schools due to immigration from Eastern Europe, and the enactment and enforcement of compulsory

education. Borland notes that the conception of giftedness served the interests of those in charge of America's schools, who felt the need to classify and quantify the diverse populations present within their schools at the time. However, giftedness began as a socially constructed method for categorizing children.

In America today, there is not one agreed upon definition of giftedness. Borland points out that within the nation's schools, a definition of giftedness is based more upon values and policies than upon empirical research. As such, what is considered giftedness in one school may or may not be seen as giftedness in another school. However, in a United States Department of Education report (Ross, 1993; cited in Gallagher, 2000), a unitary definition of giftedness was attempted, and it is currently one of the more widely accepted definitions used within the schools (Gallagher, 2000). According to the National Excellence Report (as cited in Gallagher, 2000) a gifted student includes:

Children and youth with outstanding talent [who] perform or show the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience, or environment. These children and youth exhibit high performance capability in intellect, creative, and/or artistic areas, possess an unusual leadership capacity, or excel in specific academic fields. They require services or activities not ordinarily provided by the schools. Outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavor. (p. 682)

According to this definition, a student can manifest gifts or talents in one or more of various areas, including artistic expression or leadership skills. Additionally, giftedness within the schools is based more upon performance and action; forms of output, rather than upon innate ability or knowledge. As such, the term "talent" is used, rather than "giftedness." According to Gagné (1998), giftedness refers to outstanding ability in more than one domain, whereas talent refers to outstanding performance within a more specific field. These terms have often been used interchangeably within the literature, as well as

by educators, and although it is important to understand the nuanced difference in their definitions, throughout this chapter, the term giftedness will be utilized to encompass both the notions of “gifts” and “talents.”

### Theories of Giftedness

An enormous number of theories of giftedness have been offered by various researchers during the past century. In this section, a history of the intelligence testing movement and four of the more well-known theories of intelligence will be summarized and discussed.

#### Binet, Terman, and the Origins of Intelligence Testing

Shortly after the turn of the twentieth century, the French government charged Alfred Binet with creating a test of intelligence. Their purposes for measuring intelligence were to highlight which students would not benefit from education in the regular classroom so that an early form of special education could be provided to these students (Ramos-Ford & Gardner, 1997). After much trial and error, Binet found that measures of memory, judgment, reasoning, comprehension, and attention were in agreement with teachers’ conceptions of intelligence (Colangelo & Davis, 1997). In conjunction with his colleague Theodore Simon, the Binet-Simon Scale was created to measure intelligence.

At Stanford University in California, Lewis Terman supervised modifications to Binet and Simon’s test, which included adding and revising test items and creating new age norms. The initial version of the test was published in 1916, and was named the

Stanford-Binet Intelligence Scale. To date, four major revisions of this test have occurred, with the most recent in 2004. This test continues to be in use today.

Following the publication of the Stanford-Binet Intelligence Scale, Terman and his colleagues administered the test to more than 1,500 identified gifted students within California in what was and still is the largest longitudinal study of gifted individuals. The students typically earned IQ scores over 140, and across their life spans, they were found to be above average in their educational, professional, psychological, social, and physical development (Colangelo & Davis, 1997). Based upon initial work on this study, Terman defined giftedness as “the top one percent level in general intellectual ability as measured by the Stanford-Binet Intelligence Scale or a comparable instrument,” (Terman, 1926). This definition of giftedness is considered to be a restrictive one, in that giftedness is based upon a significantly high cognitive score on a solitary measure, and as such, giftedness in areas other than cognitive ability were not considered. This initial definition shaped the field of giftedness for many years, and it continues to be regarded by the field, even as many new and less restrictive theories have been offered.

#### Schoolhouse versus Creative-Productive Giftedness

In various publications, Joseph Renzulli discusses two forms of giftedness: schoolhouse giftedness and creative-productive giftedness (Renzulli, 1998; Renzulli, 1999; Renzulli & Reis, 2000; & Renzulli, 2005). The former is closely linked to the giftedness which Terman and his colleagues were measuring, whereas the latter is based upon more recent theorizing.

Schoolhouse giftedness, as evident by its name, is the kind of giftedness most typically valued in school settings. Students possessing schoolhouse giftedness do well

academically; they learn their school lessons, they earn high grades, and they score well on tests. This form of giftedness tends to remain stable over time. These students typically do well on formal measures of intelligence and achievement, thus making this form of giftedness measurable and quantifiable. As such, scores on tests have traditionally been used as the criteria for entrance into special program for gifted students. However, despite strong IQ scores and academic performance, schoolhouse giftedness has not been found to be strongly correlated with success in the adult world. Hoyt (1965, as cited in Renzulli, 1998) found only a modest correlation between traditional notions of academic success (schoolhouse giftedness) and success in the adult world when he reviewed 46 studies dealing with indicators of academic success and post-college performance in various occupational fields.

In contrast, creative-productive giftedness places a premium on producing and applying information, rather than simply gathering a wealth of knowledge. Educational contexts to develop creative-productive giftedness focus on the application of information to solving problems, whereas schoolhouse giftedness focuses more on acquiring, memorizing, and retrieving information (Renzulli & Reis, 2000). According to Renzulli (1998), creative-productive people create “original materials and products that are purposefully designed to have an impact on one or more target audiences.” Creative-productive giftedness tends to wax and wane, as it is often difficult for a high level of creativity to remain stable over a long period of time. Additionally, this form of giftedness tends to be domain specific. Whereas a person possessing schoolhouse giftedness can obtain and recall knowledge from a variety of fields, persons with creative-productive giftedness tend to express their creativity in only one area, such as a



sculptor, a scientist, or a musician (Renzulli, 1998). However, it is these people who often become renowned for their contributions to society.

In offering the two forms of giftedness previously discussed, Renzulli (2005) notes that both forms are important, both forms often work in interaction with each other, and both forms should be recognized and encouraged within the schools. Other theorists offer similar categories, albeit with different names. For example, Callahan and Miller (2005) compare the academic activist student to the problem-solving innovator student. The academic activist meets curriculum goals and possesses a wide range of knowledge across areas; however, this student is often not interested in the creation of novel products (similar to schoolhouse giftedness). In contrast, problem-solving innovators are:

Students who bring a capability and desire to engage in the identification of problems, challenges, and questions in a discipline and who have a drive to participate in the creation of new and unusual solutions to problems.” (p. 41)

These students are considered to possess practical intelligence, which makes them more likely to create products which will solve real-world problems, similar to Renzulli’s creative-productive giftedness. In fact, it was this form of giftedness which Renzulli further theorized about, because it was these people who often made the greatest contributions to society. Renzulli (2005) writes:

History tells us it has been the creative and productive people of the world, the producers rather than consumers of knowledge, the reconstructionists of thought in all areas of human endeavor, who have become recognized as “truly gifted” individuals. History does not remember persons who merely scored well on IQ tests or those who learned their lessons well but did not apply their knowledge in innovative and action-oriented ways. (p.256)

Based upon further inquiry and thought regarding creative-productive giftedness, Renzulli formulated and later revised a model of giftedness known as The Three Ring Conception of Giftedness.

### Renzulli and the Three Ring Conception of Giftedness

As the name of this concept suggests, the three ring conception of giftedness is composed of a Venn diagram in which three interacting rings each signify a cluster of traits, all of which together explain creative-productive giftedness. The three rings represent above average ability, task commitment, and creativity (Renzulli, 1978; Renzulli, 1998; Renzulli, 2005).

Renzulli divides above average ability into general abilities and specific abilities. General abilities (a form of schoolhouse learning) are those typically measured by tests, including the ability to process information, adapt to new situations, and to think abstractly. On intelligence tests, general abilities are measured on tasks of verbal and numerical reasoning, spatial relations, and memory. This area of abilities tends to remain relatively constant throughout one's lifespan (Renzulli, 1998). Specific abilities involve knowledge and skills related to specialized areas, including specific domains within the sciences or the arts. While some specific areas can be measured with tests, others cannot (compare biology with sculpture, for example). It is worth noting that although the Three Ring Model is a model to explain creative-productive giftedness, school-house giftedness does play a role within this model because some form of above average general abilities and knowledge are necessary to interact with the other rings to promote one's creativity and productivity.

Renzulli notes that above average ability includes the upper range of potential in any given area. Whereas gifted individuals previously came from the top percentile of scores on a test of intelligence (from within the top 1% if you follow Terman's strict cutoff, or more typically from above the top 3-5%), Renzulli widens this range to include

the top 15-20% of performers in any area of human endeavor, noting that high, but not exceptional levels of intelligence, are necessary for creative achievements.

The second ring of Renzulli's model represents task commitment. Task commitment is a refined form of motivation, which Renzulli explains is composed of "energy brought to bear on a particular problem (task) or specific performance area" (Renzulli, 2005, p. 263). People with task commitment show high levels of interest and enthusiasm for their area of study, while also demonstrating perseverance and determination in their work ethic. Studies of persons who have contributed greatly to society with novel ideas or inventions were found to have a fascination and strong involvement in their area of study (Zuckerman, 1979). When working on a task, they often immerse themselves in their project; however at times, their motivation regarding the task or their field of study may wax and wane, as it is difficult to maintain a high level of motivation throughout one's life. Compared with above average ability, task commitment is difficult to quantify and measure; however, it appears to play a strong role in one's accomplishments.

The third and final ring of Renzulli's model is creativity. Similar to task commitment, creativity is more difficult to measure than intelligence, and it too tends to wax and wane over one's lifetime. (A brief discussion of methods for measuring creativity can be found later in this chapter as an example of one method for identifying gifted children). Davis (1997) enumerates various traits which are often synonymous with creative people. These include originality of thought, independence, risk taking, curiosity, energy, artistic ability, open-mindedness, and intuitiveness. Often the accomplishments valued by society involve creativity; this can include a creative

achievement in the arts, or a creative and original way of thinking in a more concrete field of study, which leads to scientific or medical breakthroughs.

In combining the three rings in his model, Renzulli notes that the interaction of above average ability, task commitment, and creativity are brought to bear upon general and specific areas of performance. Some examples of general performance areas include mathematics, life sciences, social sciences, language arts, physical sciences, and music; while specific performance areas involve fields of study found within these more general areas. While the three rings within the model are equal in size, anyone may possess more of one cluster of skills than another, and even within one's lifetime, one's ability, task commitment, or creativity may increase or decrease in comparison to the others. This is in part due to the fact that task commitment and creativity can be developed through stimulation and training, whereas above average ability is more innate and stable.

Over time, Renzulli added a Houndstooth background to his model, in which the three rings are embedded. This background is representative of the interaction between personality and environmental factors, which according to Renzulli, also account for why some people display gifted behaviors and others do not. Included within personality factors are self-concept, character, intuition, energy, and charisma. Some examples of environmental factors include socioeconomic status, parental personality, level of education, one's health, role models, and any factors of chance that play a part in one's life. Overall, it is the interaction of above average ability, task commitment, and creativity, in conjunction with one's personality and environmental factors in one's life that impacts whether someone will display gifted behaviors. Due to the interaction of these complex variables, Renzulli (1998) notes, "gifted behaviors take place in certain

people (not all people), at certain times (not all the time), and under certain circumstance (not all circumstances).”

### Gardner and the Theory of Multiple Intelligences

Like Renzulli, Howard Gardner formulated his theory of Multiple Intelligences as a response to the overuse of intelligence testing as the sole determinant of giftedness (Ramos-Ford & Gardner, 1997). The type of intelligence most commonly measured by intelligence tests is a single factor form of intelligence, whereas the theory of Multiple Intelligences is based upon the conception that one’s intelligence cannot be captured within a single measure (Ramos-Ford & Gardner, 1997). In contrast, Gardner theorized that multiple intelligences exist and account for giftedness across various domains (Gardner, 1983, Gardner, 1993, Ramos-Ford & Gardner, 1997). In his original conception, Gardner outlined seven intelligences, and over time, added an eighth. The seven intelligences are as follows: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, and intrapersonal, and the eighth intelligence is naturalist. Following is a brief explanation of each area of intelligence.

Linguistic intelligence relates to strong skills in spoken and written language. It can be broken down into syntax, semantics, and pragmatics, and is an area of intelligence found in writers, lecturers, and storytellers. Logical-mathematical intelligence involves the skills related to both logic and math, including computation ability, inductive reasoning, and deductive reasoning. Scientists, mathematicians, and actuaries often possess strong skills in this area. These two areas of intelligence are those most valued in schools and most often measured on intelligence tests and other tests of achievement.

The remaining intelligences are those less often tested and measured in academic settings.

Spatial intelligence entails an understanding of and ability to manipulate spatial configurations. This may include people with a strong sense of direction, as they are able to capture a mental image of roads and landmarks in their minds. People strong in this area of intelligence may go into fields including architecture or engineering.

Bodily-kinesthetic intelligence involves control and use of one's body to perform a task. People possessing this form of intelligence may have strong athletic ability or rhythmic ability, and may pursue careers in professional sports or dancing.

Musical intelligence is comprised of the ability to understand, hear, and discriminate various aspects of music (including pitch, rhythm, and timbre) while also having the ability to produce music through performance or composition. Not surprisingly, people possessing these skills may become singers, instrumentalists, or composers.

Interpersonal and intrapersonal intelligences both involve one's understanding of people. Interpersonal intelligence involves one's knowledge and ability to understand others, including their feelings, thoughts, actions, and motivations. People with high levels of interpersonal intelligence tend to be adept in their social interactions, because they are closely in tune with the reactions and feelings of those they are interacting with. Intrapersonal intelligence entails one's heightened knowledge and understanding of oneself, including the components mentioned within interpersonal intelligence, such as one's own thoughts, feelings, and desires. Intrapersonal intelligence not only includes

knowledge of oneself, but also implies utilizing one's knowledge of one's strengths and weaknesses to communicate and carry out activities successfully.

The eighth, and most recently added area of intelligence is naturalist intelligence (Gardner, 1999). People possessing this form of intelligence are in tune with their environments and relate well to the world around them.

Gardner's eight intelligences are present in varying degrees in all people (Ramos-Ford & Gardner, 1997). Although the intelligences may interact with each other, research has shown that each intelligence is an autonomous area of intellectual potential, and each area can mature or diminish independent of the other intelligences (Ramos-Ford & Gardner, 1997).

Gardner has been criticized for basing his theory more on his own personal intuition and thinking, and less so on thorough and proven research (Smith, 2002, 2008). To date, no studies have been published to validate the Multiple Intelligences theory, (Waterhouse, 2006). The multiple intelligences "are intangible, theorized constructs, but, if their components are specified, they can be tested. MI may require new measures, but new measures depend on clearly defined components for the intelligences, and Gardner stated that he will not define such components," (Waterhouse, 2006, p. 210).

As compared with the areas of intelligence which Binet and Terman's research determined correlate together to form an overall measure of intelligence (and which current IQ tests still in use today measure), Gardner's multiple intelligences have not been able to be tested in the same manner, as tests have not yet been developed to measure each of Gardner's intelligences (Smith, 2002, 2008). As such, whether a

correlation exists between each of Gardner's multiple intelligences has not yet been determined.

Additionally, Gardner fails to conceptualize an overarching manner in which each area of intelligence within his theory connects. Messick (1992) writes, "he [Gardner] is restricted in considering only seven intermediate- to higher- order ability complexes in isolation, with no general processes interconnecting them," (p. 382). Messick also criticized Gardner for not addressing the role of knowledge within each area of intelligence. However, Messick does give Gardner praise for examining each separate intelligence in great depth.

Gardner has also been criticized for using the word "intelligence" rather than the words "gifts" or "talents" to define the domains within his theory; however, Ramos-Ford and Gardner (1997) define intelligence as an "ability or set of abilities that permit an individual to solve problems or fashion products that are of consequence in a particular cultural setting," (p. 55). By including multiple areas of intelligence, Gardner has broadened the notion of giftedness.

#### Sternberg and the Triarchic Theory of Human Intelligence

Like Renzulli and Gardner, Sternberg also created a theory of giftedness and intelligence which provides a broader definition of intelligence than first presented by Terman. Sternberg (1985) defines intelligence as "mental activity directed towards purposive adaptation to, and selection and shaping of, real-world environments relevant to one's life," (p. 45). This implies that in Sternberg's view, intelligence is based upon one's actions and interactions with one's world, as opposed to one's innate knowledge. Sternberg offers three areas of giftedness which are explained by his theory of



intelligence (Sternberg, 1997). Analytic giftedness is seen in people who are good at problem solving, and is the area most typically measured on intelligence tests. Synthetic giftedness is a form of intuition or insightfulness when dealing with novel situations, and practical giftedness involves applying analytic and synthetic abilities in everyday, realistic situations. Sternberg's triarchic theory is composed of three subtheories which explain how people process information and respond to their surroundings. The three subtheories include a contextual subtheory, an experiential subtheory, and a componential subtheory.

The contextual subtheory relates intelligence to the outside, external world and examines one's ability to adapt to their current environment, to select a new environment when adaptation is not possible, or to shape their environment in order to create a good fit between themselves and their surroundings (Sternberg, 1985). Based upon this subtheory, intelligence is relative. For example, what is considered to be intelligent in one setting, may or may not be intelligent in another setting. Additionally, because the current and potential environments available to each of us are different, this subtheory implies that intelligence is different in each of us. Thus, measuring intelligence based upon this subtheory becomes difficult. However, because this subtheory is based upon the notion that our intelligence is relative to our environments, the contextual subtheory is applicable across cultures.

The experiential subtheory composes the second major area of Sternberg's overall theory. In this subtheory, one's intelligence is determined based upon one's ability to handle various experiences; namely, how one deals with novel experiences and situations, and whether one can automatize their ability to complete tasks and process

information related to these experiences. Compared with how one deals with relatively familiar situations, Sternberg believes that how one deals with the unfamiliar tells more about one's intelligence. This is because unfamiliar situations require new ways of thinking and problem solving. Automaticity is important in one's ability to handle tasks, because it is an essential component in one's ability to complete most familiar tasks, such as reading or driving. People who are considered to be experts in an area or field tend to have developed automaticity in how they approach tasks within their field. The ability to automatize certain information processing aspects of a task frees up other resources so that the task can be tackled successfully. Therefore, how quickly and efficiently one can automatize when faced with novel tasks or situations speaks to their intelligence within this subtheory.

The third area of Sternberg's Triarchic Theory is the componential subtheory. This portion of the theory outlines the various internal mechanisms (components) which allow for varying degrees of intelligence in people. Sternberg breaks these components into three categories: metacomponents, performance components, and knowledge acquisition components.

According to Sternberg (1997), metacomponents are the "executive processes used to plan, monitor, and evaluate problem solving and decision making," (p. 44). Sternberg enumerates seven metacomponents, including identifying and defining the problem, selecting lower-order components to begin solving the problem, organizing the information into a useful representation, selecting a strategy to use the lower order components, deciding how to allocate one's attention and resources, monitoring the solution, and evaluating the solution. How well one can solve a problem is based upon

one's metacomponents, which Sternberg notes are an integral part of one's intellectual functioning.

Sternberg also details three performance components, which are used in one's execution of a task. Whereas the metacomponents help one decide how to act, the performance components dictate the actions. The three performance components include encoding components (how one perceives and stores new information), combination and comparison components (how one puts together and compares gathered information), and response components (one's ability to respond to a problem based upon the information they have compiled).

Finally, there are three knowledge acquisition components, which impact how people are able to take in and hold on to new information. These include selective encoding (one's ability to sift apart relevant from irrelevant information), selective combination (one's ability to combine pieces of encoded information to create a new whole), and selective comparison (one's ability to combine new information with prior information, or to use old information for a new purpose). Overall, the various componential pieces described above provide an understanding of the internal forces at work when someone faces a problem, task, or new piece of information.

Sternberg's theory ties in with giftedness, in that gifted people, or those who would be considered intellectually strong according to the Triarchic theory, are persons who can problem solve effectively and efficiently. These people can handle unfamiliar tasks, and they can function effectively in novel situations. Through the use of various internal components, their thought processes regarding a task lead to effective action in order to solve the problem. However, critics of Sternberg's theory note that he is too

focused on how one responds to novel tasks and how one develops automaticity (Messick, 1992). Messick notes, “Sternberg may be pushing this two-facet dichotomy too hard, because tasks in the middle of the experiential continuum—that is, tasks that are familiar by genre but not by particulars—may reveal the kind of controlled assembly and retrieval of performance programs” believed to be associated with a single factor of intelligence (p. 376). Messick also criticized Sternberg’s Triarchic Theory for not addressing personal interests, affect, and motivation (Messick, 1992).

In the above section, a brief history and five major conceptions of giftedness were presented and discussed, ranging from Terman’s most restrictive definition, to the more liberal theories of Renzulli, Gardner, and Sternberg. Although various other theories have been created, these five alone provide one with the understanding of how truly difficult it is to define both intelligence and giftedness. Interestingly, in a 1981 study of American’s perceptions of intelligence, Sternberg and colleagues found that the American public saw intelligence as comprised of practical problem solving ability, verbal ability, and social competence, each of which represent a piece of the multifaceted theories recently presented (Sternberg, et.al., 1981). With regards to the current study, Renzulli’s conceptions of giftedness are most applicable, as it is his models for educating gifted students which are in use in the school district being studied. However, each of the theories enumerated has implications for children in schools, particularly in how these children are identified and subsequently educated. The identification and education of gifted children are discussed in the following sections of this chapter.

## Identification of Gifted Children

Various methods for determining giftedness are utilized by schools across the nation. As such, what is considered gifted in one environment may not meet giftedness criteria in another environment. Despite the lack of standardization in the determination and measurement of giftedness, there is general agreement that multiple methods should be used in the process of identifying gifted students. According to a list of data sources compiled by Feldhusen and Jarwan (2000), standardized tests, school grades, rating scales, references, essays, lists of past accomplishments, interviews, and measures of creativity may all be used to determine whether a child is considered gifted, and therefore eligible for special programming within their school. In this section, some of the more well-known methods for identifying giftedness are presented and discussed. For the most part, these procedures for identifying giftedness go hand in hand with the theories of giftedness previously discussed within this chapter.

### Standardized Tests

The use of intelligence tests or other standardized tests to determine giftedness is one of the oldest and most entrenched methods (Colangelo & Davis, 1997), and it was the advent of intelligence tests which led to the original ability to quantify giftedness. By using standardized intelligence and achievement tests to determine giftedness, it is those students who possess schoolhouse giftedness who tend to be identified, because it is these students who possess the academic-type skills measured within these tests. When standardized tests are used, a cutoff score is often set in which students must score above a certain criterion to be eligible for giftedness programming. Typically, this score is within the top three to five percent of all students taking the test (Renzulli, 1998).

Standardized tests only measure a narrow aspect of intellect, and they do not tap the creative, social, and leadership skill areas where one may also exhibit giftedness (Renzulli, 1998). As such, various theorists have warned against the strict adherence to the use of standardized tests as a sole measure of giftedness. Terman was quoted as saying, “We must guard against defining intelligence solely in terms of ability to pass the tests of a given intelligence scale,” (p. 131, Terman, et.al., 1926). Additionally, Sternberg (1982) wrote:

Tests only work for some of the people some of the time — not for all of the people all of the time — and that some of the assumptions we make in our use of tests are, at best, correct only for a segment of the tested population, and at worse, correct for none of it. The problem then, is not only that tests are of limited validity for everyone, but that their validity varies across individuals. For some people, test scores may be quite informative, for others, such scores may be worse than useless. Use of test score cutoffs and formulas results in a serious problem of under-identification of gifted children. (p. 157)

As such, other less restrictive means to measure forms of giftedness must be considered.

### Measuring Creativity

The notion of creativity is complex because creativity has many components, is not well understood, nor is it well defined. Creativity is difficult to quantify because it can occur anytime or anywhere, it can involve small insights or large creations, and it can come naturally or be forced (such as when students are given time to brainstorm) (Davis, 1997). Additionally, creativity is not readily observable. Davis (1997) notes that although most educators agree that creative students should be identified, there is not agreement in the field on how to measure creativity, as no convincing CQ (creativity quotient) has been isolated. To aid in the identification of creative students, Davis recommends the use of certain objective measures of creativity, such as tests of divergent thinking, in conjunction with ratings or nominations of creative students.

One of the most popular measures of divergent thinking is the Torrance Tests of Creative Thinking (Davis, 1997). Some of the tasks within this test require students to identify oddities, come up with inventive uses for common objects, and turn abstract forms into meaningful drawings. This test provides measures of the student's fluency of thought (the number of ideas they can come up with), as well as their flexibility of thought, originality of thought, and their ability to elaborate upon an idea or drawing.

Although the Torrance Tests of Creative Thinking are a normed standardized measure of creativity, Davis (1997) suggests that such a measure is best used in conjunction with other informal identification methods which are often subjective in nature. Biographical information about the activities of the student, as well as information about the student's past creative activities may be one of the strongest indicators of future creativity (Davis, 1997). Additionally, creativity inventories in which the student, parent(s), and/or teacher list the hobbies, interests, and creative activities which the child engages in may also be useful for identification purposes. In considering a student's creativity, Davis (1997) advises that personality and motivational characteristics must also be considered because creativity can often be stifled in a student who is less than motivated to think abstractly or inventively.

#### Identifying Giftedness Based Upon Specific Models

Both Sternberg and Gardner offer methods for identifying giftedness based upon their models of intelligence. In response to Sternberg's Triarchic Theory of Human Intelligence, Sternberg created the Sternberg Triarchic Abilities Test (Sternberg, 1993). This test is composed of nine subtests which provide scores on three scales; the analytical, synthetic, and practical abilities scales. On the analytic scale, tasks include

inferring word meanings, understanding number patterns, and completing matrices. On the practical scale, tasks include solving everyday problems in the form of verbal reasoning, real-world math, and planning routes with a map. Finally, on the creative scale, tasks include solving analogies, numerical matrices, and completing sequences, all when provided with novel information. The test is completed with three essays; one each in the analytical, synthetic, and practical abilities areas. In discussing this test, Sternberg (1997) notes that this test may be useful in identifying various facets of giftedness, in that a person may exhibit giftedness in one measured area of the test but not in another. However, this test fails to account for motivational and affective factors which may impact upon the test taker (Messick, 1992).

Like Sternberg, Gardner offers a method for identifying giftedness based upon his model of Multiple Intelligences; however, unlike Sternberg, Gardner's assessment method is not a formal test, but rather a model for determining giftedness. Gardner differentiates between his form of assessment and formal testing, noting a preference for gaining information during one's day to day performance in one's familiar environment as compared with in a formal, decontextualized testing environment (Ramos-Ford & Gardner, 1997). Gardner's method of assessment also focuses on measuring each area of intelligence individually, to avoid confounding influences from the other areas of intelligence. When assessing each one of the multiple intelligence areas, one's engagement in tasks, persistence on tasks, and overall distractibility are observed and measured to provide a picture of one's working style across intelligences (similar to Renzulli's task commitment). The information gained from Gardner's method of identifying giftedness across domains of intelligence is then compiled into a narrative



profile which details an individual's strengths and weaknesses in a more thorough manner than can be obtained by using a standardized test alone. However, with any assessment method that is based upon observation and in which the results of the assessment are compiled in a written narrative, the test administrator's own subjectivity comes into play.

#### The Revolving Door Identification Model (RDIM)

The final identification model to be discussed within this chapter is the Revolving Door Identification Model (RDIM). In order to further Renzulli's Three Ring Conception of Giftedness, Renzulli, Reis, and Smith (1981) created the Revolving Door Identification Model as a means to determine which students within an educational setting would receive various forms of enrichment based upon the Three Ring Conception of Giftedness. The enrichment method used in conjunction with the Revolving Door Identification Model is known as the Enrichment Triad Model (this model will more thoroughly be discussed later in this chapter as one method for educating gifted students). Briefly, according to this educational model, three levels of enrichment opportunities are available to students: Type I and Type II enrichment are more general forms of enrichment, while Type III enrichment is a more in-depth investigative form of enrichment. The advent of the Revolving Door Identification Model helps schools to determine which students would benefit from which level of enrichment at a given time. Additionally, by using the Revolving Door Identification Model, a larger number of students are able to experience enrichment programs which were originally earmarked for only the top percentiles of students.

One of the main features of the Revolving Door Identification Model is the creation of a talent pool of students within an educational setting. Typically, the talent pool is composed of the top 15-20% of students from the general population. This cluster of students then becomes the major target group for enrichment activities. Renzulli (1990) offers various steps to use in determining which students will compose the talent pool. Renzulli suggests dividing the available space within the talent pool in half, allowing some space in the talent pool for students with strong test scores and grades, while preserving room for students with other talents and creative tendencies. As such, Renzulli begins by automatically filling in half of the talent pool based upon strong standardized test scores. The remaining steps taken include teacher nominations, alternate pathways (including parent nomination, self nomination, and measures of creativity), as well as special nominations (such as from previous teachers) to fill the remaining half of the talent pool.

The Revolving Door Identification Model is so named because once a talent pool has been formed, Type I and Type II forms of enrichment are offered to these students, and then based upon their level of interest and response to the enrichment topics, students may revolve into Type III enrichment opportunities (Renzulli, 1999). Therefore, if a student expresses a particular interest or curiosity regarding a certain subject, they will be given the opportunity to further explore this area, thus cultivating a higher level of interest and productivity in this subject area. Type III enrichment focuses not only on in-depth learning in a specific area, but also upon the creation of new products related to this area; thus, the creativity and task commitment rings of Renzulli's Three Ring Model are being tapped during Type III enrichment.

According to Renzulli's research (1990), students composing each half of the talent pool (those selected based upon test scores versus those selected based upon other means) did not differ significantly in the quality of the products they created during Type III enrichment opportunities. This therefore supports the effectiveness of the Revolving Door Identification Model and the 15-20% cutoff mark for admission into the talent pool, as compared with much stricter cutoffs used in conjunction with other identification models. This also supports the notion that giftedness and creativity can be nurtured and developed, rather than the notion that these traits are innate and fixed.

### Educating the Gifted Student

In considering various strategies and methodologies for educating gifted students, one must begin by considering the purpose of gifted education. In various publications, Renzulli enumerates two goals of gifted education (Renzulli, 1998; Renzulli, 1999, & Renzulli, 2005). The first goal of educating gifted students is for their own personal self-fulfillment. This self-fulfillment is accomplished by allowing these students to develop their thoughts and ideas, to express themselves creatively, and ultimately, to provide an outlet for their curiosity, energy, and knowledge. The second goal of gifted education focuses less on the individual level as compared with the first goal; rather, it focuses more on how society can be improved and enhanced by educating gifted students. Renzulli notes that the second purpose of gifted education is "to increase society's supply of persons who will help solve the problems of contemporary civilization by becoming producers of knowledge and art, rather than mere consumers of existing information," (p. 249, Renzulli, 2005). Thus, by educating gifted students during their school years, it is

more likely that these same students will contribute to society as adults. Additionally, it is this second goal of gifted education that has led national and state governments to pass legislation and to secure funding for gifted education programs in the hopes that monies and resources devoted now will benefit society later on.

Various educational methods have been created and attempted to educate gifted students. These methods run the gamut from strategies used within the general education classroom to pull-out programs in which gifted students are grouped together for enrichment purposes. In the following portion of this chapter, programs for educating gifted children within their schools will be discussed.

### Curriculum Alterations

In order to meet the educational needs of gifted students, particularly those students who demonstrate schoolhouse giftedness, the curriculum used within the educational setting can be altered. These alterations can include compacting the curriculum or accelerating the pace at which materials are presented.

Curriculum compacting is a procedure that involves modifying or streamlining the curriculum by removing repetitive materials which the advanced student has already mastered (Reis & Renzulli, 1992). By doing so, the current curriculum can be covered at a faster overall pace. The additional time which curriculum compacting frees up can then be used for enrichment activities that will prove more challenging and fulfilling for the gifted student. In order to compact the curriculum, teachers must take a thorough look at the current curriculum, and they must also consider their current students. First, a teacher should become aware of specific students who have demonstrated strengths in specific curriculum content areas. In doing so, the teacher should identify activities and skills

within these content areas which the advanced students in their class have already mastered. Finally, the teacher should consider enrichment opportunities which these students could potentially benefit from, and then insert these enrichment activities in place of the already mastered elements from within the curriculum (Renzulli, 1985). Overall, it is important that when compacting the curriculum, the goals and objectives originally set forth with a specific lesson remain intact. When curriculum compacting is done well, up to fifty percent of the original curriculum can be removed without any decline in standardized test scores (Renzulli, 1999). Additionally, by providing enrichment materials in place of already mastered curriculum content, gifted students are likely to remain more engaged with the materials and information being taught in their classrooms.

Curriculum acceleration entails offering advanced levels of curriculum to younger students; for example, providing sixth grade curriculum instruction to gifted fifth grade students (Schiever & Maker, 1997). Rather than making alterations to the actual curriculum (as is done with curriculum compacting), curriculum acceleration allows students to experience the curriculum and have learning experiences which were designed for the average student of an older age or grade. Schiever and Maker (1997) describe this method as providing “the same but sooner and/or faster.”

Although both curriculum compacting and curriculum acceleration can offer academically gifted students opportunities to experience curricular materials that may be more appropriate to their current level of knowledge, the changes involved in compacting and/or accelerating the curriculum may take time to set in motion. Additionally, they may be met with resistance by people involved with the school, as the current structure of

most schools is geared towards average students rather than gifted students.

Additionally, it is important to note that neither curriculum compacting nor curriculum acceleration address the needs of students who possess the creative-productive form of giftedness.

### The Enrichment Triad Model

While the curriculum methods discussed above are best suited for students demonstrating schoolhouse giftedness, Renzulli created other educational methods to encourage the creative-productive form of giftedness. One such method is the Enrichment Triad Model, which later led to the Schoolwide Enrichment Model (which will be reviewed following this discussion of the Enrichment Triad Model). Renzulli created the Enrichment Triad Model in response to his study of enrichment-type programs in use during the 1960's and 1970's. The majority of these programs were focused on accelerating curriculum content or providing process-oriented enrichment activities (Renzulli, 1999). While the accelerated curriculum method served to advance schoolhouse giftedness, it was doing nothing to promote the creative-productive form of giftedness, which Renzulli saw as contributing more to society. Additionally, Renzulli objected to the enrichment activities being used at the time, because although they consisted of challenging cognitive activities, they were often presented to students in a disjointed manner while pulling select students out of their classrooms. According to Renzulli, the models in use at the time represented deductive forms of learning in which prescribed lessons segmented by subject area led to all students being offered the same knowledge (Renzulli, 1982). The Enrichment Triad Model, an inductive method of learning, was created in response to these deductive approaches. This inductive approach

is different from traditional classroom learning because it focuses on the creation of products designed for real world situations. In the inductive method, students play a large role in selecting and pursuing an area of interest, and teachers serve more as coaches than as instructors. Students discover new information and create novel products. Their quest for information is active rather than passive.

At the heart of the Enrichment Triad Model are three levels of enrichment: Type I enrichment, Type II enrichment, and Type III enrichment. Type I enrichment is the most general form of enrichment, and its purpose is to expose students to a wide array of topics that would not typically be discussed in the general education classroom. Often, Type I enrichment opportunities involve bringing guest speakers into a school, using a variety of media not typically part of the regular curriculum, as well as using hands-on demonstrations (Renzulli & Reis, 1997).

Whereas Type I enrichment is often termed “General Exploratory Activities” and it takes place fully within the general education classroom, Type II enrichment consists of group training activities which occur both within the classroom and within enrichment programs. According to Renzulli and Reis (2000), Type II enrichment is “designed to promote the development of thinking and feeling processes,” (p. 370). This involves the development of creative thinking, critical thinking, problem solving, and communication skills, all of which focus on real-world abilities, rather than purely academic skills. Additionally, Type II enrichment may involve further study of an area of interest previously introduced to the student during Type I enrichment.

Finally, Type III enrichment is the most in-depth form of enrichment in which the student pursues extensive knowledge in a specific area of study; often an area of interest

which they had begun to learn something about during Type I and II enrichment activities. Renzulli and Reis (1997) note:

“Type III enrichment occurs when students become interested in pursuing a self-selected area and are willing to commit the time necessary for advanced content acquisition and process training in which they assume the role of a first-hand inquirer.” (Pg. 138)

Type III enrichment typically involves one student or a small group of students further investigating a topic of interest. Because students are pursuing subjects of their choosing, the learning they are engaging in becomes more personally meaningful. Whereas Type I and Type II enrichment are geared towards the input of knowledge and information, Type III enrichment is geared towards the output of products. Although students pursuing Type III enrichment opportunities are gaining advanced knowledge regarding their area of interest, the outcome of Type III enrichment is typically a novel product, presentation, or art form.

The belief supporting the Enrichment Triad Model is that giftedness can be developed in certain people at certain times and under certain circumstances. While traditional forms of enrichment were only offered to a small, select group of gifted students, Renzulli believed that enrichment opportunities should be provided to larger groups of students in order to identify particular students who would benefit from more specific and focused enrichment opportunities (Renzulli, 2005). As was mentioned when discussing the Revolving Door Identification Model, a talent pool of the top 15-20% of students is formed within a school. Students in the talent pool are provided with Type I and Type II enrichment opportunities. Then, depending upon their level of interest and their task commitment related to a particular topic introduced during Type I and Type II enrichment, students will have the opportunity to revolve into Type III enrichment



activities. Findings have revealed that talent pool students involved in Type I and Type II enrichment opportunities produced equally strong products during Type III enrichment activities as compared with gifted students selected from the traditional top 3-5% cutoff. This demonstrates that by providing Type I and Type II enrichment opportunities, creative-productive giftedness can be nurtured in a wider range of students (Renzulli & Reis, 1997).

### The Schoolwide Enrichment Model

When Renzulli began his research in the 1960's and 1970's, the major thrust in gifted education was "qualitative differentiation," in which gifted education sought to create a unique identity separate from general education. In the cold-war era, America was seeking to nourish their most gifted minds in order to compete globally. Thus, pull-out programs for the top 3-5% of students flourished. Although the Enrichment Triad Model was created during this era, it was not initially welcomed by those calling for qualitative differentiation because it offered enrichment opportunities to a wider range of students (Renzulli, 1999). In contrast, the 1980's brought an educational movement known as equity-in-education, which focused on removing programs geared for gifted students, because these programs were seen as a form of elitism. It was during this time that the Revolving Door Identification Model and the Schoolwide Enrichment Model were created in order to provide enrichment opportunities to a wider range of students (Renzulli & Reis, 1985).

The Schoolwide Enrichment Model was well received during this time, because it focused on providing opportunities to all students within a school so that each student could achieve to their maximum potential. In this model, the focus is not upon

identifying or labeling students as gifted or not gifted, but rather, the focus is on multiple service delivery methods employed within the school. The three service delivery components are the Total Talent Portfolio, Curriculum Modification Techniques, and Enrichment Learning and Teaching.

The Total Talent Portfolio is a method for gathering information regarding the strengths, abilities, learning preferences, and areas of interest of each student (Renzulli and Reis, 2000). Students, with the help of their teachers, compile a personal portfolio that includes tests, written and artistic products, as well as information regarding the methods of instruction and the learning environments which the student responds best to. The purpose of creating such a portfolio is to help determine when and what type of curriculum acceleration or enrichment may be appropriate for the particular student.

There are two forms of curriculum modification utilized within the Schoolwide Enrichment Model: curriculum compacting and removal of excessive practice material. Curriculum compacting was discussed earlier within this section as one method for educating gifted students. In this case, Renzulli has incorporated this technique into the Schoolwide Enrichment Model. Once a student's portfolio has been created, it can be reviewed to determine what materials the student has already mastered, and then mastered information can be replaced with enrichment opportunities or accelerated content to better meet the student's individual educational needs. The second form of curriculum modification involves examining the books which the students use as part of the regular curriculum, and removing excessive practice materials which often prove to be redundant. Renzulli suggests teaching real world skills, such as thinking and problem solving, in place of assigning the excessive practice materials (Renzulli, 1999).

The third and final service delivery component is termed Enrichment Learning and Teaching. This portion of the Schoolwide Enrichment Model is essentially an assimilation of the Enrichment Triad Model. Each student's individual portfolio is utilized to determine if and when they should engage in enrichment, particularly Type III enrichment opportunities. Enrichment occurs in groups known as enrichment clusters. According to Renzulli, these groups should be composed of students who share similar interests, and who can work together in a non-graded situation to produce a unique product or service regarding their area of interest. Renzulli suggests that students work in these groups for one half day per week. While working in groups naturally teaches how to divide labor and builds cooperation, the main goal of enrichment clusters is to develop higher-order thinking skills and creativity (Renzulli, 1999). While the Enrichment Triad Model called for the development of the talent pool to determine which students would receive which levels of enrichment, the Schoolwide Enrichment Model, as per its name, allows the opportunity for all students to experience all levels of enrichment based upon the information in their ever-changing portfolios.

When implementing the Schoolwide Enrichment Model, each school is encouraged to interpret and adjust the model to fit the needs of the school's population. Renzulli and Reis (1997) note, "The ultimate goal of learning that is guided by these principles is to replace dependent and passive learning with independence and engaged learning," (p. 148). By considering the unique interests, learning styles, and abilities which a student possesses, the learning experiences provided to this student can be tailored so that the student's optimal performance can be fostered. Additionally, learning will be more meaningful to each student because the information being taken in is not

only of interest to the student, but it will be applicable to the real world in which the student lives.

### Concluding Thoughts on Giftedness

In this review of giftedness literature, various theories of giftedness, techniques for identifying gifted students, and methods for educating gifted students were presented and discussed. As the concept of giftedness has existed and been thoroughly researched, written about, and debated for nearly one hundred years, this review could only present a relatively small portion of this information. However, the theories discussed within this chapter tend to be some of the more well known theories from some of the more popular and accepted theorists within the field. This chapter has provided an understanding of the evolution of thought and theory regarding giftedness, particularly how historical times and circumstances have shaped the notion of giftedness and gifted education.

For the purposes of this dissertation, it is worth noting that while Joseph Renzulli is one of the leading researchers in the area of giftedness, his theories and models were most thoroughly presented and discussed purposefully in this particular review of giftedness literature. This was done because it was his theories which guided the development of the giftedness program in the school district in which this dissertation is taking place.

## CHAPTER III

### EVALUABILITY ASSESSMENT

#### Introduction

In this chapter, the process of conducting an evaluability assessment (EA) is detailed. However, before the steps involved in conducting an evaluability assessment are addressed, the reasons for conducting such an assessment, including the history, purpose, and goals of EA are discussed. The goal of this chapter is to provide an understanding of evaluability assessment particularly as it differs from a full-scale program evaluation.

#### A Call for Program Evaluation

A program evaluation informs stakeholders as to the program's processes, as well as the intended and unintended effects of the program (Smith, 1989). Essentially, a program evaluation determines whether a program is accomplishing its goals effectively. Two main types of program evaluations can occur: formative and summative (Smith, 1989, Borland, 1997). In a formative evaluation, a program evaluation examines a current program in order to make ongoing improvements. In a summative evaluation, a program is studied only after the goals it was expected to achieve may have been realized

in order to determine whether the program has been effective (Smith, 1989, Borland, 1997).

In 1993, the United States Government created the Government Performance and Results Act to address frustration with the lack of good information addressing the results of federally funded programs (<http://www.gao.gov/new.items/d05739sp.pdf>, 1993). This act instituted that government programs should set goals and annually report program performance in relation to these goals.

According to the New Jersey State Gifted and Talented Requirements set forth by the State Department of Education, school districts should consider the seven standards put forth by the National Association for Gifted Children (NAGC) when developing gifted and talented programs ([http://www.nj.gov/education/aps/cccs/faq\\_gandt.htm](http://www.nj.gov/education/aps/cccs/faq_gandt.htm), 2006). According to NAGC, the standards are meant to serve as a blueprint for a successful program. The seven standards are Program Design, Program Administration and Management, Student Identification, Curriculum and Instruction, Socio-Emotional Guidance and Counseling, Professional Development, and Program Evaluation (<http://www.nagc.org/index.aspx?id=546>, 1998). It is this last standard which this chapter will look at in more detail.

Borland (1997) notes that in the schools, programs for gifted students are infrequently evaluated, and this lack of data leaves these programs vulnerable to questions of efficacy. Additionally, without program evaluation, a program's quality is difficult to maintain or improve (Borland, 1997). Callahan (2000) states that a lack of program evaluations of gifted programs leads to a dearth of documentation to support that "the curriculum is sufficiently challenging and provides a depth and complexity of

learning that could only be realized by those students identified as gifted,” (p. 537). As such, evaluations of gifted programs are necessary. Callahan (2000) goes on to discuss that evaluations of gifted programs will document the need for the program, justify a specific teaching approach or curriculum, gather information regarding strengths and weaknesses of the program, and overall, will improve the services to the gifted student.

Conducting program evaluations, particularly of gifted programs, is not always feasible or sensible. Often, these programs are lacking enumerated goals which guide the program’s implementation (Borland, 1997). Additionally, it is these same goals which would be evaluated to determine whether the program is functioning successfully.

Borland (1997) also notes that when gifted programs do have goals, they are often too lofty to be used in a successful evaluation (such as wanting students to be able to make a difference in the country’s future). Hatry and Newcomer (2004) warn that programs should not undergo an evaluation if the program has vague objectives or if the potential utility of an evaluation has not been assessed. Rutman (1980) notes that information from many early evaluations was either non-utilized or misused. By non-utilized, Rutman (1980) means that the results of the evaluation did not contribute to future budgetary or policy decisions. By misused, Rutman (1980) means that evaluation findings were used to hide or justify a failing program or were used to destroy a program regardless of its effectiveness. Finally, Rutman (1980) notes, “Premature evaluations are often conducted on programs that are not really amenable to impact or effectiveness studies,” (p. 34). It was concerns like this with regards to program evaluation which led to the advent of Evaluability Assessment in order to determine a program’s readiness for evaluation.

## History, Purpose, and Goals of Evaluability Assessment

Evaluability assessment began in the 1970's. It was created by Joseph Wholey and his colleagues at the Urban Institute in Washington, D.C. as a preliminary step to determine whether a program could yield a successful evaluation (Wholey, 1979).

Wholey (1979) defines a successful evaluation as one that informs how a program's future performance may be improved. An evaluability assessment examines a program's structure, intended goals, and the likelihood that the program can meet these goals (Smith, 1989). Additionally, it determines whether these aspects of a program are well defined, measurable, and reasonable (Wholey, 1979). Overall, the primary yield of an evaluability assessment is better program performance (Wholey, 1979).

Smith (1989) explains that an Evaluability Assessment can be utilized at different times in a program's life. It can be used to plan a new program, to improve a program already in existence, or to increase the utility of a future evaluation. Smith (1989) specifies two outcomes which an evaluability assessment yields. First, an evaluability assessment defines a program's theory. This includes the program's activities and the expected outcome of these activities, as well as the resources for the program and performance indicators (Smith, 1989). Second, an evaluability assessment determines the awareness and interest that the program's stakeholders have in regards to the program (Smith, 1989). Overall, by conducting an evaluability assessment, a current or future program can be better defined in order to yield future success.



## Creating a Logic Model

A logic model is a visual representation of how a program functions under certain conditions to solve identified problems (Bickman, 1987). In conducting an evaluability assessment, a logic model of the program undergoing the evaluability assessment is often created to ensure that all involved parties have a shared understanding and mutual agreement regarding how the program functions. Information to create the logic model is gathered throughout the evaluability assessment process (the methods used to collect the data for the current evaluability assessment will be detailed in chapter IV). When a logic model is created as part of an evaluability assessment, it illustrates predictions regarding the intertwining relationships of the program's components. Should a full-scale evaluation occur in the future, these predictions regarding the program's theory could then be tested.

McLaughlin and Jordan (2004) explain, "A program can be thought of as a hypothesis, *if* a program is implemented, *then* the expected results will follow," (p. 8). As such, a logic model can be created to visually document this "*if...then*" relationship. Based upon the model presented by McLaughlin and Jordan (2004), a logic model is a flow-chart outlining the resources, activities, and outputs which fuel the program, as well as the outcomes which the program yields. These outcomes can be broken down into short-term, intermediate, and long-term outcomes. Resources include any inputs (time, money, etc) which are needed to help the program run. Activities refer to the actions which those involved with the program undertake in order to turn the resources into outputs. Outputs are products or services which the consumer or customers of the program receive. (In the case of the program in this study, the consumers are the children

in the gifted program). Lastly, the outcomes are the benefits or changes that the consumers experience due to the program being implemented.

It is believed that by creating a logic model of a program, the nature of the program can be communicated more effectively (McLaughlin and Jordan, 2004). A logic models allows those familiar with the program to gain a common understanding of how the program functions. During an evaluability assessment, this is accomplished by gathering information from the program's various stakeholders regarding how the program operates and then summarizing this information in one overall model of the program's performance. The goal is to conceptualize the program. Rutman (1980) notes that this process allows the evaluator to develop a better understanding of the program. In addition, a logic model provides a concise model of the program which those less familiar with the program can also easily understand (McLaughlin & Jordan, 2004).

The creation of a logic model can inform what factors are studied in a full-scale evaluation or what aspects of a program are in need of improvement before a full scale evaluation would be warranted. When Wholey first began using logic models as part of evaluability assessments, he would merge the theories of managers regarding their program in order to plan more useful evaluations (Wholey, 1987). Rutman (1980) adds that by creating such a model, poorly defined aspects of the program and stakeholders varying beliefs regarding the program may become evident. In addition, gaps in the causal linkages (the "*if...then*" relationship) of the program's components may surface. As such, by creating a logic model of a program during an evaluability assessment, more successful programs, and more useful program evaluations may occur.

## Procedures and Steps of an Evaluability Assessment

While researchers offer varying steps for conducting an evaluability assessment, most agree that three methods are best used for gathering information. In a review of fifty-seven evaluability assessment studies, Smith (1989) notes that the methods most often used include reviewing program documents, interviewing program staff, and making site visits to the program. These methods are utilized to gather information to answer various questions about the program being studied.

In 1979, when Wholey initially introduced the concept of evaluability assessment, he enumerated eight steps. Wholey's eight steps from 1979 are as follows:

1. Define the program to be evaluated
2. Collect information on the intended program
3. Create a (logic) model of the program to synthesize information
4. Identify users' measures of program performance
5. Collect information on program reality
6. Analyze program reality information and the plausibility of program objectives
7. Identify evaluation options
8. Present the information to management

Wholey does note that although the steps are numbered, when conducting an evaluability assessment, information from a later step may lead the researcher to return to an earlier step in what he calls "successive iterations," (1979, p. 50).

The earlier steps in the process (steps 1-4) are typically accomplished through interviews with program stakeholders and other relevant program staff. As such, when the logic model is created (step 3), it is based upon the gathered input from the people familiar with the program. In contrast, the subsequent steps (steps 5 and 6) involve the researcher's review of program documents and the researcher's personal observation of the program. As Wholey explains when determining program reality, "the evaluator now examines field operations to clarify the plausibility of program assumptions and

objectives,” (1979, p. 64). Wholey states that these steps are essential in determining what program activities are actually occurring and what progress towards enumerated goals is likely. Wholey warns that without these steps, costly evaluations may then produce inconclusive findings because sufficient knowledge of program operations was never gathered (Wholey, 1979). An evaluator cannot solely depend on the information gathered from interviews as those interviewed may have a different view of the program in their minds than how it operates in reality.

Wholey (2004) more recently offered a six step model for conducting an evaluability assessment. Steps within this model generally follow Wholey’s original model with some related steps now combined. This model is as follows:

1. Involve intended users of evaluation information
2. Clarify the intended program
3. Explore program reality
4. Reach agreement on any needed program changes
5. Explore alternative evaluation designs
6. Agree on evaluation priorities and intended uses of information

In this model, the steps of collecting information and creating a logic model (steps two and three of the 1979 model) have combined into step two; clarifying the intended program. Additionally, steps five and six of the former model (collect information on program reality and analyze program reality information and the plausibility of program objectives) have combined into step three of the new model; exploring program reality. However, both models continue to involve gathering information first through interviews with stakeholders and staff, then discovering program reality through the evaluator’s own observations and review of program documents. Finally, both models conclude with making determinations regarding evaluation and presenting the information to the program’s managers.

Smith (1989) offers a very similar model, albeit with ten steps. Smith's model begins with two additional steps which help to lay the groundwork for the evaluability assessment's success. Step one involves determining the purpose of the evaluability assessment, identifying key staff members and stakeholders, and securing a commitment from all key players. Step two entails defining the boundaries of the program to be studied. Specifically, what resources and activities are being directed at what needs towards what purpose in order to shape this program? It is important that these specifics are determined before the evaluability assessment begins so that it is clear exactly what is being studied. Smith's later steps are similar to the steps offered in both of Wholey's models (1979 and 2004) and include analyzing program documents, clarifying program theory, interviewing stakeholders and describing their view of the program, as well as their needs and differing perceptions, determining a plausible program model, drawing conclusions, and planning steps to utilize the gathered data. Within Smith's steps, he is more specific as to the method used to gather data. For example, Smith's step three is analyze program documents and step five is interview stakeholders, while Wholey's models focus more on the information to be gathered during each step. It is not until you delve further into Wholey's descriptions of each step where one learns how to go about gathering that information. As such, the next few paragraphs detail the six steps of Wholey's 2004 model for conducting an evaluability assessment.

#### Step 1: Involve Intended Users of Evaluation Information

This step entails ensuring that from top to bottom, people involved with a program are aware of the evaluability assessment being conducted. This includes policymakers, managers, and program staff. As Wholey writes, "these interactions help

to ensure that to the extent possible, program designs as seen by evaluators conform to both the expectations of key stakeholders and the reality of program operations,” (2004, p. 37). Wholey (2004) also makes the comparison between the program evaluator who often works in isolation and the researcher conducting an evaluability assessment who requires interaction from policymakers, stakeholders, and staff members in order to gather their perceptions of the program.

### Step 2: Clarify the Intended Program

This step involves clarifying the relationships between the program’s resources and activities and the intended outcomes these resources and activities are expected to yield. Wholey (2004) notes that the evaluator should be studying program documentation, particularly related to the history and funding of the program, as well as interviewing policymakers, managers, and program staff in order to gather this information. In the final phase of this step, the evaluator should be merging the gathered information to form the logic model which visually depicts the causal relationships between the activities and resources put into the program, and the intended outcomes.

### Step 3: Explore Program Reality

This step requires that a comparison be made between the program design elucidated in the logic model, which is primarily based upon the vision of those interviewed, and the program’s actuality. In order to learn more about program reality, the evaluator must further study program documentation, including reports of accomplishments and past evaluations, as well as through first hand observations, known as site visits (Wholey, 2004). During this step, comparisons are being made between the logic model and reality regarding inputs and outcomes. When discrepancies are found

between the logic model and program reality, evaluators must “identify problems inhibiting effective program performance and identify feasible measures of program performance,” (Wholey, 2004, p. 40).

#### Step 4: Reach Agreement on Any Needed Program Changes

Because an evaluability assessment estimates a program’s probable success in achieving its intended outcomes, this information may also lead key people involved with the program to make changes to the program’s design or implementation prior to conducting an evaluation (Wholey, 2004). It is during this step that the researchers conducting the evaluability assessment will sit down with the program’s managers to discuss what has been learned and to help the managers make further decisions regarding the program. Decisions might include changes (increases or decreases) to resources, activities, or goals, or overall changes in program design.

#### Step 5: Explore Alternative Evaluation Designs

Should the evaluability assessment reach the point where managers want to move forward with a full-scale evaluation, the evaluators can provide various design options for conducting the evaluation, including what data will be collected and how it will be analyzed, the costs and time associated with such an evaluation, and the ways in which the information gathered will be used (Wholey, 2004).

#### Step 6: Agree on Evaluation Priorities and Intended Uses of Information

This step flows from the prior step. Assuming managers settle on a format for evaluating the program, a tentative agreement on how the information will be used must be agreed upon.

### Concluding Thoughts on Evaluability Assessment

The steps of evaluability assessment according to Wholey's 2004 model will be used in the current formative study of the giftedness program. Primarily, steps one through four will occur. It is the evaluator's goal to involve key people working with the giftedness program, gather their thoughts related to the program, and then through the creation of a logic model, compare their beliefs with each other's, as well as with information gathered through program documentation and observations. Finally, the evaluator will share the generated information with the key people involved with the giftedness program. As the current study is an evaluability assessment and not a full-scale evaluation, steps five and six will not be undertaken as they relate to evaluating the program. The next chapter details how the evaluator will go about accomplishing these steps regarding the current study, specifically what measures and procedures will be utilized. Chapter IV will also provide a closer look at the history of the giftedness program being examined and the unique roles of the stakeholders involved with this program.



## CHAPTER IV

### METHODS

#### Introduction

This chapter focuses on the manner in which the current study, an evaluability assessment of an elementary school giftedness program, is to be accomplished. This includes the measures used, the participants involved, and the overall procedures to be undertaken in following Wholey's 2004 model.

#### Background

This study was initially envisioned when the superintendent of schools of the school district where the giftedness program exists expressed an interest to the researcher in receiving feedback about the giftedness program. This particular superintendent (in conjunction with the district's board of education) had commissioned the hiring of a new giftedness teacher (also known as the "Gifted and Talented Facilitator") and had sent this teacher to a summer training at Renzulli's Institute at the University of Connecticut before the teacher began teaching for the district that fall. Additionally, as noted in Chapter I, the giftedness teacher was charged with creating the giftedness program based upon the received training. However, during that school year, the superintendent left the school district. Since that time, interim superintendents have worked for the school

district. In addition, a new assistant superintendent was hired, a position that did not originally exist when this study was first conceived. As the current assistant superintendent oversees curriculum and instruction, this person was more recently approached by the researcher in order to ascertain the district's continued support and enthusiasm for the evaluability assessment. The assistant superintendent reaffirmed an interest in and support for having this study conducted and was provided with copies of consent forms and the interview protocol discussed below.

In the midst of the administrative changes occurring at the superintendent level within the school district, those who were and are involved with the giftedness program, including the principals of both elementary schools and the giftedness teacher, have remained constant. Each of their roles in regard to the giftedness program is discussed next.

## Stakeholder Roles

### Giftedness Teacher

The role of the giftedness teacher involves direct service delivery of the giftedness curriculum to the identified students in grades three, four, and five. Students at both elementary schools meet with the teacher in small, grade-level groups for two forty minute class periods each week. Additionally as previously discussed, the giftedness teacher also initially created the Curriculum Guide which informs the program. In order to deliver the program, the giftedness teacher creates three units of instruction per grade-level that students will focus on during the school year. Weekly lesson plans, which are submitted to the building principals of each elementary school (in the same manner that

all other elementary teachers follow in the district), are derived from these larger units.

While students in third and fourth grade have less say in the units of instruction, the giftedness teacher does allow the fifth grade students some choice in the units delivered.

Additionally, the giftedness teacher is involved in the selection of students for the program. This includes overseeing the administration of the InView Test each spring to second grade students who may be eligible for consideration in the program. The InView Test is a standardized cognitive measure that assesses verbal and quantitative reasoning skills. A verbal, nonverbal, and an overall score are given. For the purposes of the school district, overall scores two standard deviations or greater above the mean (top 5% of scorers) are preferred for entrance into the giftedness program; however, because this was found to be quite limiting based on the actual obtained scores of students in the school district, the top 10% of scorers may be considered for eligibility when other selection criteria are factored in (see below for more information on other selections criteria). The giftedness teacher informed the researcher that she had selected the InView Test based upon her prior positive experiences with an earlier version of the test, as well as because Renzulli's training highlighted the importance of using a cognitive measure for selection purposes. (Further information about the InView Test can be found at the publisher's website: [http://www.ctb.com/products/product\\_summary.jsp?FOLDER%3C%3Efolder\\_id=1408474395220081&ASSORTMENT%3C%3Eeast\\_id=1408474395213825&bmUID=1250099148947](http://www.ctb.com/products/product_summary.jsp?FOLDER%3C%3Efolder_id=1408474395220081&ASSORTMENT%3C%3Eeast_id=1408474395213825&bmUID=1250099148947)).

The giftedness teacher's role in student selection also entails overseeing the giftedness selection committee at each elementary school. These committees meet one to two times per year in order to choose students to be included in the giftedness program.

As the leader of each committee, the giftedness teacher gathers and compiles all relevant data related to the students being considered for the program, and the data is then shared with the committee members. Committee members include the giftedness teacher, the building principal, the guidance counselor, and any other interested teachers or child study team members (the child study team is composed of the school psychologist, learning consultant, or school social worker) who opt to serve on the committee. Other than the building principal, guidance counselor, and giftedness teacher, committee members may join or leave the committee at will each school year.

Relevant data include teacher nominations, InView Scores for students moving into the third grade, and New Jersey Assessment of Skills and Knowledge (NJ ASK) scores for students going into fourth and fifth grade. Occasionally, past InView scores for students moving into fourth or fifth grade will be considered, as one's cognitive ability tends to remain relatively stable over time. The committee seeks NJ ASK scores in the top 5% when compared with the child's peers within their school in the areas of language arts or math. Additionally, report card information for students under consideration is gathered in the areas of reading, writing, and math. Students are expected to have an overall grade average of 95 or better across these three subject areas during the school year prior to their consideration. Teacher feedback is ascertained in both a narrative form (the teacher nomination) as well as through the use of two rating scales which the giftedness teacher obtained during her training at the Renzulli Institute. The two scales are the Learning and Behavioral Characteristics of Gifted Students and the Scales for Rating the Behavioral Characteristics of Superior Students (SRBCSS). The Learning and Behavioral Characteristics of Gifted Students is a list adapted from the

book *Teaching Gifted Kids in the Regular Classroom* (Winebrenner, 2003). Teachers are asked to select characteristics from the list that the student exhibits most frequently. Of the thirty-seven characteristics listed, the giftedness teacher has selected ten which she feels are most essential for success in the giftedness program. The SRBCSS was created by Renzulli, et.al. (2002) and allows teachers to rate a student's learning, creativity, and motivational characteristics by indicating the frequency with which they display certain behaviors in the classroom. Minimum scores in each area are set forth by the giftedness teacher. More recently, the giftedness teacher has attempted to observe each student under consideration for one forty minute class period. Additionally, she has begun administering an informal creativity measure to students under consideration which asks them to draw a scene on a nearly blank page which contains a few marks already on the page. The giftedness teacher explained that she implemented this creativity measure because she was finding that students currently in the program were lacking in creativity in her opinion. Formal scores are not obtained on this measure, but the giftedness teacher does provide subjective opinion on the students' work for the selection committee to consider. (For a visual synopsis detailing the order in which the selection criteria are considered, see the flow chart on the following page).

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Table 1  
Selection Procedure Sequence for Entry into the Giftedness Program

Teacher Nomination (with comments from teacher)

-OR-

Parent Nomination



InView Overall Test Scores

(students going into 3<sup>rd</sup> grade)

-OR-

NJ Assessment of Skills and Knowledge Language Arts or Math Test Scores

(students going into 4<sup>th</sup> & 5<sup>th</sup> grade)



Report Card Data in the areas of reading, writing, and math



Teacher Rating Scales:

1. Learning and Behavioral Characteristics of Gifted Students
2. Scales for Rating the Behavioral Characteristics of Superior Students (SRBCSS)



Giftedness Teacher Observation



Informal Creativity Task

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The giftedness teacher compiles all of the obtained data into spreadsheets by grade level, which are shared with the members of the selection committee. Teacher nomination and test scores (either InView or NJ ASK depending upon the student's upcoming grade level) are the most important criteria and are therefore considered first. The other criteria are then considered in the order they were discussed previously when questions arise based upon the teacher nomination and test scores. In the instance that a parent believes that his/her child should be considered for the giftedness program but the child was not nominated by their teacher, a parent nomination can occur. The student is then considered on all of the same data as the children identified through teacher nomination. Selection decisions are ultimately based upon consensus of the selection committee. Overall, the giftedness teacher aims to have approximately the top ten percent of the school population in each grade level selected for entry in the giftedness program.

#### Building Principals

The roles of the two building principals in regard to the giftedness program primarily consist of supervision and oversight of the giftedness teacher, including reviewing and providing feedback on lesson plans and observing the teacher during direct instruction for evaluation and feedback purposes. Both principals also serve on the selection committees at each of their schools.

#### Superintendent and Assistant Superintendent

As discussed earlier in this chapter, it was the previous superintendent's interest in gifted education which led to the inception of the current giftedness program, the hiring of the giftedness teacher, and the Renzulli training which the teacher received.

Currently, with the establishment of the assistant superintendent role, the assistant superintendent oversees the giftedness program in an administrative capacity as the curriculum supervisor for the entire school district. The building principals report to the superintendents, but the superintendents are not directly involved with the program.

### Procedures

As discussed in Chapter III, the methods most often used in conducting an evaluability assessment include reviewing program documents, interviewing program staff, and making site visits to the program (Smith, 1989). While all three of these methods were used in accomplishing the current study, more weight was given to some over others.

#### Observations

The researcher observed the selection committee being led by the giftedness teacher on multiple occasions as they made decisions about which students would be admitted into the program. These observations helped to determine whether the identification procedures initially laid out were being used as intended. This coincides with step three of Wholey's (2004) methodology related to exploring program reality.

#### Review of Program Documents

The researcher reviewed various documents related to the formation and current operating procedures of the giftedness program. This included a Curriculum Guide written by the giftedness teacher at the outset of the program that included a mission statement, goals and objectives, identification criteria for students to be eligible for the program, and program descriptions. The review also included forms used to identify



students and notification forms sent to parents of identified children. The review concluded with a study of the spreadsheets created by the facilitator containing the students' eligibility data collected and shared with the selection committee.

### Stakeholder Semi-Structured Interviews

As per step two of Wholey's evaluability assessment methodology (2004), in order to clarify the intended program, individual interviews with each of the major stakeholders (the two building principals and the giftedness teacher) occurred using an interview protocol as a basis for the interviews. Wholey (1979, p. 53) refers to these interviews as "user surveys" and he enumerates five purposes for utilizing such surveys:

1. Who will be the primary users of the information?
2. How do users define the program?
3. Are there any discrepancies over how program performance is measured?
4. What are the users' priorities for information?
5. How satisfied are the users with the existing information sources?

In the case of the current evaluability assessment, a semi-structured format was selected so that the interview protocol could serve as the framework for the interviews, but the interviewer and respondents could feel free to add additional questions or comments related to the ongoing discussion. The interview protocols were developed based upon the evaluability assessment procedures outlined in Chapter III (see appendix A) with a focus on gaining each stakeholder's unique perceptions of the giftedness program (Smith, 1989; Wholey, 1979; Wholey, 2004). The questions yielded information regarding each stakeholder's role related to the program, the needs of the gifted children, the goals of the program, the program's activities and resources, and the program's overall implementation. Prior to conducting these interviews, each stakeholder was

asked to sign a consent form in which they were made aware that their participation was voluntary and there were no foreseeable risks to their involvement in the study.

### Conclusion

This chapter details the methods and procedures to be used in conducting the evaluability assessment of the elementary giftedness program based upon Wholey's 2004 model. Semi-structured stakeholder interviews, a review of program documents, and brief observations were used to clarify the intended program, to explore program reality, and to make comparisons between the two.

It should be noted that the researcher received exemption from the Institutional Review Board (IRB) for the Protection of Human Subjects in Research at Rutgers, The State University of New Jersey. Exemption was granted after a panel review of the current study, as it has no known harmful effects on the participants. Exemption was also granted with the stipulation that the researcher follow all procedures initially outlined in the request for exemption, including the use of consent forms (see Appendix C).

## CHAPTER V

### RESULTS

#### Introduction

In this chapter, the methods used and the procedure followed for conducting this evaluability assessment are reviewed. Following that, the results of the evaluability assessment of the giftedness program are presented.

#### Methods

In conducting the evaluability assessment of the giftedness program, semi-structured interviews with key stakeholders and a review of program documents were the main methods employed. Additionally, the evaluator observed the selection process during selection committee meetings.

#### Stakeholder Semi-Structured Interviews

Individual interviews were conducted with the giftedness facilitator and the building principal at each of the two elementary schools. The same interview protocol was used with each stakeholder. The semi-structured format allowed the evaluator to ask follow-up questions which allowed each stakeholder to share his/her areas of knowledge regarding the giftedness program. (The interview format can be found in Appendix A). Questions asked were designed to ascertain the stakeholders' knowledge of their specific

role related to the program. They were also asked to explain their understanding of the student identification process, as well as their beliefs about the needs of gifted students. Additionally, they were asked to respond to questions about the purpose, goals, activities, and resources related to the program, as well as whether any data collection has occurred and whether the program has faced any obstacles.

#### Review of Program Documents

In order to have an understanding of the giftedness program, the evaluator reviewed various documents which detail the giftedness program's formation, daily workings, and selection procedures for students to be accepted into the program.

Regarding the program's formation, the evaluator had access to the program's curriculum guide which was created by the giftedness facilitator when she created the program during the summer of 2006. The guide, at that time, was submitted and approved by the school district's board of education. The guide includes a mission statement, definition of giftedness, goals and objectives, identification criteria, and an extensive list of the skills which students in the program will have the opportunity to gain. Finally, copies of the nomination forms, rating scales, and letters used to let parents know that their child is being considered for the program, as well as to inform them once an eligibility decision has been made, were included in the curriculum guide.

In order to gain a better understanding of the program's daily workings, the giftedness facilitator shared documents which enumerate the various units which she uses with students in each grade level. Additionally, a student evaluation form was reviewed. This form is completed by the giftedness facilitator at the end of each school year in order

to provide input to the students' parents regarding their progress in meeting the objectives of the program.

Regarding the selection process, the evaluator reviewed all of the forms used to notify parents regarding selection consideration and decisions. In addition, the Learning and Behavioral Characteristics of Gifted Students, the Scales for Rating the Behavioral Characteristics of Superior Students (SRBCSS), and the creativity measure were reviewed. Lastly, the giftedness facilitator shared various matrices used since the program's inception which compile all of the selection data for students under consideration.

### Observations

The evaluator had the opportunity to observe the content and process during selection committee meetings. These observations allowed the evaluator to gain an understanding of the workings of this committee, including how eligibility information is disseminated and utilized, as well as how the committee members interact in order to render decisions.

### Use of the Evaluability Assessment Procedures

In conducting the evaluability assessment, the evaluator utilized the initial steps in Wholey's (2004) procedure. As discussed in Chapter III, Wholey's six step procedure is as follows:

1. Involve intended users of evaluation information
2. Clarify the intended program
3. Explore program reality
4. Reach agreement on any needed program changes
5. Explore alternative evaluation designs
6. Agree on evaluation priorities and intended uses of information

For the purposes of this evaluability assessment, the first four steps were utilized. The final two steps were not undertaken as they apply more to the planning stages of a full-scale program evaluation. Following is an explanation of how each of the initial steps were implemented and a synopsis of the information gained.

#### Step 1: Involve Intended Users of Evaluation Information

In order to ascertain continued support for this study, the evaluator met with district-level administrators throughout the process. When this study initially began, the superintendent who initiated the formation of the giftedness program was excited about the prospect of an evaluability assessment. More recently, the evaluator met with the current assistant superintendent to ascertain his continued support for the study. The assistant superintendent was also positive about the study and eager to gain information that could inform program improvements.

In interviewing the stakeholders of the program (the giftedness facilitator and the building principals), the purpose and goals of the evaluability assessment were explained, as well as the potential benefits of their involvement in this study. They were also assured that their identities and the school district's identity would remain anonymous. Each stakeholder signed a consent form prior to being interviewed agreeing to take part in the study (see Appendix C for the consent form).

#### Step 2: Clarify the Intended Program

All of the data collection methods enumerated earlier in this chapter, including the stakeholder interviews, review of program documents, and observing the workings of the selection committee, allowed the evaluator to clarify the intended program. As discussed in Chapter III, the summation of this clarification phase should lead to the creation of a

logic model, which visually depicts the causal relationships between the activities and resources put into the program, and the intended outcomes. Based upon the model presented by McLaughlin and Jordan (2004), a logic model is a flow-chart outlining the resources, activities, and outputs which fuel the program, as well as the outcomes (short-term, intermediate, and long-term) which the program yields. By creating a visual depiction of the program's workings, the nature of the program can be communicated more effectively (McLaughlin and Jordan, 2004). The logic model for the giftedness program can be seen on the following page and is explained subsequently.

Table 2  
Logic Model of the Giftedness Program

Resources	Activities	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long-Term Outcomes
Lesson plans, knowledge of lessons, materials for the given lesson, classroom space, money for materials, access to technology	Facilitator pulls-out and leads grade level groups	Students create projects or presentations that can be shown to staff, peers, and/or parents	Students build research skills, learn how to work in groups, learn social skills and communication skills, and they begin to think creatively, logically, strategically, and in a divergent manner	Students cultivate personal interests and they continue to build their creative, logical, strategic, and divergent thinking, beginning to apply these skills in their classrooms	Students apply and transfer their creative, logical, strategic, and divergent thinking skills into their educations, careers, and lives
Teacher knowledge, ability, and time to administer the test. Materials include the InView Test and #2 pencils for all 2 <sup>nd</sup> grade students	Facilitator administers the InView Test through the 2 <sup>nd</sup> grade teachers	InView Test scores	Scores are used for eligibility determinations for 2 <sup>nd</sup> graders being considered for entry into the program	Scores may be used for 3 <sup>rd</sup> and 4 <sup>th</sup> graders being considered for entry into the program	
Teacher time to nominate and provide written input, facilitator's time to gather and compile input and observe students. Materials include rating scales, report card, and test data	The facilitator oversees the selection committee by gathering and compiling data, observing students, and leading the committee in selection decisions	Selection decisions are able to be made	Students either are or are not selected for the giftedness program	Selected students have the opportunity to benefit from the giftedness program, while those not selected may be reconsidered in future years	



The major activities related to the giftedness program are identified in the second column of the logic model. The first and most time intensive activity involves the actual education of the gifted students in the pull-out grade level groups led by the giftedness facilitator. In speaking with the facilitator and reviewing relevant documents, the format for how the gifted students are educated was ascertained. In following with the schools' three marking periods per year, the giftedness facilitator uses three units each year with students in each grade. In 3<sup>rd</sup> grade, students learn to play chess, engage in a clay animation activity, and learn about nutrition. In 4<sup>th</sup> grade, students engage in a crime scene investigation unit, a mock stock market activity, and an inventions unit where they learn about the inventing and patenting process leading to the creation of their own invention. In 5<sup>th</sup> grade, students participate in two prescribed units determined by the giftedness facilitator, and then vote on one of two final units. The two units determined by the facilitator are a mock trial where students learn about and engage in the United States legal system, and an entrepreneurial unit in which they create, market, and sell a novel product. The two final units from which the students can decide are an additional crime scene investigation unit focusing on King Tut's tomb or a house design unit in which the students become architects and design an addition on a home.

As seen in the logic model, in order to bring these units to fruition, the giftedness facilitator must acquire knowledge related to the units and then create lesson plans to enact the units. In order to ascertain materials needed for these lessons, the facilitator shared that she has a budget ranging from \$500-\$1000 annually, in addition to a separate budget for field trips. The facilitator noted that the majority of the budget is spent on arts and crafts materials for the students' projects, as well as resource books where she gets

ideas for her lessons. Regarding classroom space at each elementary school, the facilitator is given a portion of a classroom in each building that can fit one table for lessons and her desk. The facilitator noted that the classroom space is not sufficient, particularly for storing the students' projects when they are in progress. She explained that much time is often spent putting projects away at the end of one lesson and taking them out at the beginning of the next lesson. Therefore, if the program was afforded more classroom space, time could be saved by allowing projects to be more easily accessible. Finally, the facilitator noted that while many of the units involve accessing the internet, this technology is not always available in the given space.

The outcomes of the pull-out program detailed in the logic model are a combination of outcomes which the facilitator has personally witnessed come to fruition, as well as intended outcomes which the stakeholders hope will occur for the identified students in the future. Some of the short-term outcomes that the facilitator has personally witnessed involve the interactions of the students when engaging in the units of study. These include improved social skills, communication skills, and group interaction skills. Additionally, the students build their research skills by seeking information from online, from newspapers, and from their school library. When the giftedness facilitator outlined the units which students engage in for the evaluator, she also shared specific thinking skills which each unit targets. As such, she has seen students grow in their ability to think creatively, critically, logically, strategically, and divergently. For students who have been in the program for a year or more, the facilitator has seen some of these skills transfer into their larger classrooms, based upon input the facilitator has received from classroom teachers. Additionally, by engaging in the varied units, students discover

personal interests, sometimes seeking more knowledge in a particular subject independently, either during the unit or following the unit's completion.

While the short-term and intermediate outcomes for the pull-out groups are outcomes which are already visible since the program's inception three years ago, the long-term outcomes are those which the stakeholders hope will occur in the future. They anticipate that the involved students will take the thinking skills fostered in the program and apply these in an ongoing manner in their educations, careers, and lives.

The other two activities related to the giftedness program involve the administration of the InView Test to 2<sup>nd</sup> grade students, and the preparation for and meeting of the selection committee. In order to successfully administer the InView Test, materials must be ordered, including test booklets and pencils. Additionally, as it is the second grade teachers who administer the test (with the oversight of the facilitator), their knowledge of the administration procedures and time out from their usual classroom activities are also required resources. By administering the InView Test, scores can be used in the short-term to determine a 2<sup>nd</sup> grade student's admittance into the giftedness program for their 3<sup>rd</sup> grade year. Additionally, in some cases, it was observed by the evaluator that the selection committee would refer back to a student's InView score when determining their eligibility for the giftedness program for their 4<sup>th</sup> or 5<sup>th</sup> grade year (an intermediate outcome).

In overseeing the selection committee, the giftedness facilitator engages in much data collection regarding the considered students. This data collection is time consuming not only for the facilitator, who compiles the data into spreadsheets to share with the selection committee, but also for teachers who currently have a considered student in

their class. As discussed in Chapter IV, where the selection process was outlined in detail, teachers provide written input about students and also complete two rating scales regarding each considered student in their class. In compiling the data, the facilitator also attempts to observe each student in class, and more recently, has begun administering a brief creativity measure to each student prior to the selection committee's meeting at each elementary school. When the committee does meet (this usually occurs one to two times per year for about an hour at a time), selection decisions are rendered. For those students admitted into the program, they are then exposed to the opportunities discussed above, including the ability to improve their social skills and communication skills, and build their thinking skills.

### Step 3: Explore Program Reality

This step requires that a comparison be made between the program design (as depicted in the logic model) and the program's actuality. During this step, comparisons are being made between the logic model and reality. Specifically in the case of the giftedness program, the evaluator studied and made comparisons between the information gained from the interviews with the stakeholders and the program documents reviewed and personal observations made. The mission statement of the giftedness program notes, "identified students are provided with a non-graded learning experience that is designed with the students' needs and interests in mind...to further develop critical thinking, problem solving, inquiry thinking, divergent thinking awareness, creative, and productive thinking." Based upon stakeholder interviews, the main activity of the giftedness program, the pull-out grade level groups, is occurring as intended.

The curriculum guide also enumerates five goals for the giftedness program.

These goals are as follows:

1. Provide all pupils with programs/opportunities that develop critical thinking skills and encourage students to become independent lifelong learners.
2. Provide experiences apart from, but connected to, the regular classroom for those students who demonstrate above average ability, task commitment, and creativity.
3. Provide identified students with enrichment opportunities that further develop critical thinking, problem solving, inquiry thinking, divergent thinking awareness, creative and productive thinking.
4. Develop self-direction and the ability to use creative or productive thinking to make decisions.
5. Provide identified students with learning experiences at an appropriate level of challenge.

Based upon the data collected, it appears that these goals are being met by the giftedness program's pull-out instruction. The units of instruction specified by the giftedness facilitator are diverse and focus on the various thinking skills listed above. However, the reality of the goal of making students become lifelong learners is difficult to determine as the program is relatively young (three years old) and no formal long-term measures are in place to determine the fate of students in the program in middle school, high school, or beyond. This lack of long-term outcome measures will be discussed further in Chapter VI). Unlike a majority of giftedness programs which lack enumerated goals to guide the program (Borland, 1997), this program does have specific goals with underlying objectives which are directing the program's implementation.

In comparing the student identification process set forth in the curriculum guide with the process enumerated by the giftedness teacher and principals and observed during selection meetings, the selection process is proceeding according to plan. Additionally, the makeup of the selection committee is also in keeping with what was initially set forth in the curriculum guide. According to the curriculum guide, the selection committee

shall be comprised of the building principal, facilitator, classroom teachers, and the guidance counselor. In reality, this has also expanded to include child study team members. What is not enumerated in the curriculum guide is a plan for how this committee will function. In reality, the committee is led by the giftedness facilitator and decisions are steered by the facilitator. For example, in creating spreadsheets that contain all collected data about considered students in a given grade level, the facilitator rank orders the children from strongest to weakest based upon collected information. As such, the strongest students in each grade rarely warrant much discussion, and are typically granted admission into the program. The weakest students also rarely warrant discussion as the allotted number of slots are often filled before these students are looked at. It is the students on the cusp who tend to be discussed most thoroughly. Additionally, in observing the selection committee, it has been the evaluator's experience that because certain classroom teachers are on the committee, students who are better known by these teachers are discussed in further detail. However, this does not always lead to acceptance in the program, as this further discussion can be positive or negative.

In reviewing the program description, the facilitator based the program model on Renzulli's Enrichment Triad Model. However, the manner in which the giftedness program functions is more a loose interpretation of Renzulli's model. As discussed in Chapter II, Type I enrichment takes place within the general education classroom and is a form of more generalized study. Type II enrichment consists of group training activities which occur both within the classroom and within enrichment programs with the goal of developing creative thinking, critical thinking, problem solving, and communication skills (Renzulli & Reis, 2000). Finally, Type III enrichment is the most in-depth form of

enrichment in which the student pursues knowledge in a specific area of study; often an area of interest which they had begun to learn something about during Type I and Type II enrichment activities. In contrast, the giftedness program does not include any Type I enrichment within the classroom. Instead, the program is solely a pull-out program. Like Type II enrichment, the pull-out program does involve group training activities aimed at building thinking skills and communication skills. In fact, this is the core of the giftedness program. Finally, Type III enrichment is not fully realized within the program as students do not have the freedom to pursue knowledge within a specific area of study that interests them. Instead, students follow the prescribed units created by the giftedness facilitator. However, within these units, there are some opportunities for choice.

Whereas Type I and Type II enrichment are geared towards the input of knowledge and information, Type III enrichment is geared towards the output of products (Renzulli and Reis, 1997). The pull-out giftedness program focuses both on the input of knowledge, but also on the creation of novel products as a summation to each of the prescribed units. Overall, it appears that the giftedness program utilizes a modified version of Renzulli's Enrichment Triad Model. In this case, aspects of Type II and Type III enrichment are both used by the pull-out program.

#### Step 4: Reach Agreement on Any Needed Program Changes

During this step, the evaluator provides feedback to the stakeholders regarding what has been learned. This includes presenting the logic model and discussing the intended program in comparison with the program reality. Recommendations that may inform a full-scale program evaluation are also shared at this time. Regarding the giftedness program, the evaluator will share the abovementioned information, as well as

some subsequent recommendations for improvement that will be discussed in the next chapter. The information will be shared with the assistant superintendent, the building principals, and the giftedness facilitator and it will be up to them (with the evaluator's guidance) whether any program changes occur.

### Conclusion

This chapter offered a review of the procedures used in conducting the evaluability assessment of the giftedness program. The procedures included stakeholder interviews, reviewing relevant program documents, and observing the workings of the selection committee. In following Wholey's 2004 model for conducting an evaluability assessment, intended users were involved and the intended program was clarified through a review of program documents, most notably the curriculum guide. Finally, comparisons were made between the intended program and program reality by comparing the curriculum guide created in 2006 (in preparation for the outset of the program) to the program as described by the stakeholders and as observed by the evaluator in 2009. For the most part, the program appears to be functioning as it was originally intended, based upon the mission statement, goals, and program description initially set forth. Additionally, the program's activities, curriculum, staff, and resources have all remained stable over three years of implementation, while only the identification process has changed slightly (with the addition of student observations and the creativity measure). However, some areas for improvement were discovered during the evaluability assessment process and these will be discussed in the following chapter.



## CHAPTER VI

### DISCUSSION AND IMPLICATIONS

#### Introduction

In this chapter, areas for improvement are discussed for the giftedness program based upon information gained during the evaluability assessment. These include standardizing the student identification process, creating quantifiable outcome measures, and addressing issues of sustainability. Finally, this chapter concludes with implications which this evaluability assessment of a giftedness program can offer to school psychologists.

#### Areas for Improvement

According to step four of Wholey's 2004 model, stakeholder agreement should be reached related to needed program changes. In the case of the giftedness program, three areas for improvement are noted by the evaluator and will be shared with the stakeholders in a feedback session.

#### Standardize the Identification Process:

As discussed in Chapters IV and V, the current identification process for student entry into the giftedness program involves various methods (including test scores, grades, recommendations, rating scales, and most recently, observations and a creativity

measure). According to the curriculum guide created by the giftedness facilitator at the outset of the program in 2006, the use of all of these measures was planned, other than the creativity measure and the observation of students by the giftedness facilitator. According to the facilitator, these two measures were added in order to provide additional information about the students. The facilitator noted that observations of the students in their classrooms provide information about how the students reason and problem solve on a day to day basis. During selection committee meetings, the giftedness facilitator narratively shares information gained during observations with the selection committee. The creativity measure was added after a few years of program implementation based upon the facilitator's observation that students currently in the program were lacking in creativity and divergent thinking ability. While the facilitator could reasonably explain the purpose of these additional identification tools, neither tool is being used in a standardized manner, and both are subjective as they rely on the facilitator's impressions. Additionally, the other identification tools in place should also be examined, particularly the rating scales. For example, in using the Learning and Behavioral Characteristics of Gifted Students Scale (Winebrenner, 2003), the giftedness facilitator identified ten characteristics from thirty-seven presented on this scale which she believes are the most relevant for students accepted into the program. On the other rating scale used, the Scales for Rating the Behavioral Characteristics of Superior Students, (Renzulli, et.al, 2002), minimum scores across the areas rated (learning, creativity, and motivation) were set by the giftedness facilitator. As such, these scales are also being used in a non-systematic manner. However, the evaluator is aware that various criteria on these scales do relate to the characteristics which the facilitator is looking to foster in identified

students; thus, it would be worth reviewing the manner in which these scales are used and the criteria set by the giftedness facilitator related to these scales for continued relevancy. Overall, it would be worthwhile for the stakeholders to review all of the identification measures used every few years (perhaps in conjunction with the selection committees at each school) in order to determine whether each measure remains necessary and appropriate, or whether new measures (perhaps a more standardized creativity measure or observation process) would be valuable.

In standardizing the identification process, it is also recommended that the facilitator be cognizant of how considered students are presented to the committee and how committee members may influence the selection process. As noted in Chapter V, the giftedness facilitator rank orders the students being considered for the program in each grade from strongest to weakest. The strongest and weakest students rarely warrant much conversation, while the students in the middle typically are the most thoroughly discussed. As such, it is the evaluator's opinion that this rank ordering should not occur as this may sway student selection unfairly. Additionally, it is possible that the students lower in the rankings may be more creative students, but due to somewhat weaker test scores or grades, while they are identified, they are never fully considered for the giftedness program.

Finally, committee member influence over the selection process should also be addressed. The purpose of the various selection methods is to provide information to the committee to allow them to render impartial decisions. However, the evaluator observed that depending on which teachers were present, how vocal they were, and what opinions they voiced, selection decisions for students on the cusp could be swayed. As such, it

would be valuable for the giftedness facilitator to consider which teachers are selected for the committee, or perhaps insist that the current teacher of each identified student be present to ensure that each identified student is discussed by someone who knows them well. Additionally, curbing committee conversations which are either biased or irrelevant to the selection process is essential in fair decision making.

Create Quantifiable Outcomes Measures:

According to Borland (1997), school-based programs for gifted students are infrequently evaluated, and lack of data leaves these programs vulnerable to questions of efficacy. Callahan (2000) explains that evaluations of giftedness programs can accomplish many things, including documenting the need for the program, justifying a specific teaching approach or curriculum, gathering information regarding strengths and weaknesses of the program, and overall, improving the services delivered to the gifted student. In interviewing the stakeholders and reviewing program documents for this giftedness program, evaluation procedures were found to be lacking. When asked, “How do you know/measure if the goals of the program have been met?” “Is there any data collection/evaluation that has occurred regarding this program?” and “What are the indicators of success?” the responses given demonstrated this area of weakness. The facilitator shared that she observes the knowledge of the students as they apply their skills during lessons. Additionally, she noted that the students verbalize to her what they have learned. However, she did state that no formal data collection has occurred. One of the elementary school principals admitted that this is an area of weakness, noting that he/she is unsure of any data collection to measure the program’s progress. All three stakeholders did note when asked about indicators of success that the facilitator

completes a progress report at the end of each marking period regarding each student's personal progress. However, this is a subjective measure, and its current purpose is to inform parents about their individual child's progress, rather than to provide information about the success of the giftedness program. As such, it is the evaluator's recommendation that quantifiable outcome measures be devised and put into place to determine short-term, as well as intermediate and long-term outcomes. This may include data collection well into the future after students move on from the elementary level program. This is particularly relevant as the first goal from the curriculum guide discusses encouraging students to become independent lifelong learners. If this is a goal of the program, then the ability to measure this goal's outcome is important. Outcome measures may include, but are not limited to, parent and teacher ratings of students' knowledge and thinking skills over time (used as a pre and post measure), as well as data collection related to students' grades, test scores, college acceptance, career success, etcetera, into the future.

#### Address Issues of Sustainability:

The logic model documents the resources, activities, and outputs which fuel a program, as well as the outcomes which a program yields. An important resource for the giftedness program as it currently functions is the giftedness facilitator. The current facilitator is the resource which fuels all of the other resources, as well as the program activities. The facilitator created the curriculum, writes weekly lesson plans, oversees and guides the selection committee, and conducts all of the pull-out groups for students in the program. With one person being so instrumental in the life of a program, program sustainability must be addressed. Scheirer (2005) notes, "An important final step in the

life cycles of programs and their evaluation involves assessing new programs' or innovations' sustainability.'"

As the giftedness program currently functions, the giftedness facilitator created and now runs the program virtually independently. While the giftedness facilitator is overseen by the building principals and the assistant superintendent, all note that they are pleased with the job the facilitator is doing and they believe that it is her organization and ideas which make the program a success. As such, they allow her to be independent. While the program's design is somewhat formalized and involves small group instruction twice weekly for grade level groups, the units of instruction, lessons delivered, and daily activities are informal and decided upon by the facilitator. The building principals noted that the facilitator is allowed to be independent with selecting and running the units because of her skills and past experiences working with gifted students.

In Chapter V, the intended program was compared with program reality, and it was noted that the program is currently running as intended. However, if the current giftedness facilitator were removed from the equation, it is unclear whether the program would continue and in what form. In interviewing the facilitator, it was noted that she would eventually like to return to being a classroom teacher; however, because she is well respected as the giftedness facilitator, she is unsure she will be afforded this option in the school district where this study occurred. Additionally, the building principals who oversee the facilitator are aware of her desire to return to the larger classroom, but admit that they cannot foresee letting her leave the giftedness program because of the program's inability to continue without her. As such, it is the evaluator's recommendation that a curriculum be written outlining the units of instruction and their related activities so that

regardless of who the facilitator is, the program can be sustained into the future without a lapse in the program's implementation. Additionally, it is further suggested that if the current facilitator leave the position for any reason, a transition period between the current and next facilitator be implemented to allow for sharing of ideas, and most importantly, a seamless changeover.

### Implications for School Psychologists

As noted earlier, the purpose of this dissertation was to demonstrate the process of a program evaluability assessment using a giftedness program in one New Jersey school district. A giftedness program was selected as the model to demonstrate an evaluability assessment because school psychologists may play a large role in the education of gifted students. School psychologists may be called upon for their knowledge and training of students with special educational needs. Additionally, school psychologists are in a position to be instrumental in creating the selection criteria for a gifted and talented program, as well as screening students once criteria are agreed upon. According to the New Jersey State Gifted and Talented Requirements (2006), achievement tests and intelligence tests are two acceptable means for identifying students for entry into a gifted and talented program. School psychologists are in a unique position to administer, score, and/or interpret these tests and their results due to graduate training in psycho-educational evaluations which school psychologists receive.

*The Guidelines for the Provision of School Psychological Services* (NASP, 2000) are published by the National Association of School Psychologists, and discuss the delivery of school psychological services. Eight guidelines are offered and each is

broken down into smaller units of guidance. Within the guidelines, a school psychologist's role in program development, implementation, and evaluation is addressed. For example, school psychologists are expected to conduct program planning and evaluation activities, as well as to play a role in the design and delivery of curriculum. As such, guideline 7.3 states, "School psychologists shall develop, implement, and evaluate prevention and intervention programs." In discussing evaluation, guideline 4.9 says, "School psychologists evaluate interventions...These include the skills necessary both to evaluate the extent to which the intervention contributed to the outcome and to identify what constitutes a "successful" outcome." Additionally, guideline 1.4 states, "School psychologists use appropriate assessment information to evaluate interventions to determine their effectiveness, their need for modification, or their need for redevelopment." Finally, guideline 3.5 discusses school psychologists' role in creating curriculum. According to this guideline, "School psychologists assist in the design and delivery of curriculum to help students develop behaviors to support effective learning." Thus, school psychologists may be called upon to provide expertise in creating a giftedness program, writing curriculum for the program, and later, evaluating the program's effectiveness.

This dissertation demonstrated the need for graduate programs for school psychologists to offer student training in all aspects of giftedness, including theories of giftedness, measuring varied aspects of giftedness, and educating gifted students. Additionally, training in program creation, as well as evaluation and evaluability assessment, are essential for school psychologists to be contributing members of a school community in their future careers. Thus, it is essential that graduate training for school



psychologists include courses, as well as opportunities for real world experience, related to giftedness and program planning and evaluation.

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## APPENDIX A

## INTERVIEW PROTOCOL FOR STAKEHOLDERS

What is your specific role in regards to the giftedness program? What job duties does this role include for you? Do you have any expertise related to giftedness?

How are students identified for this program?

What are the needs of the gifted students in your elementary school?

What is the purpose of the giftedness program?

What is the mission statement of the giftedness program?

What are the goals of the giftedness program? (Specifically, what knowledge, skills, & abilities would you like students to gain from participating in this program?)

What activities occur to help to meet these goals?

How do you know/measure if/when these goals have been met? What are the indicators of success?

What resources does the program require? (materials, facilities, budget, personnel, etc)

Do you feel that the necessary resources are available?

Is there any data collection/evaluation that has occurred in regards to this program? If so, how, when, and what has been collected, and what have the findings been?

Is there a formal program design or model in place? If so, does the current program's operation resemble the intended model?

Would you say that the program is being implemented as planned?

What is the history of the program? Has it undergone any redesigns? If so, when, and for what purpose? How was this approach to working with gifted children selected?

What obstacles has/does the program face(d)?

\*\*Note: Based upon the respondents' answers to the above questions, further questions (probes) may be used to provide additional clarification. However, all questions will remain focused on the giftedness program.



## APPENDIX B

## CONSENT FORM TO SUPERINTENDENT

Jennifer Grant  
The Graduate School of Applied and Professional Psychology  
Rutgers, The State University of New Jersey  
152 Frelinghuysen Rd. Piscataway, NJ 08854

Dear Superintendent,

I am a student at the Graduate School of Applied Psychology at Rutgers University. In order to complete the requirements for my doctor of psychology degree, I am required to write a dissertation, which I would like to perform at \_\_\_\_\_ Elementary School. I am seeking your permission to conduct this research for my dissertation during the coming months.

The title of my research project is: *“An Evaluability Assessment of an Elementary School Giftedness Program for Third Through Fifth Grade Students.”* The focus of this study will be the current giftedness program in your elementary schools. An “evaluability study” will determine to what degree the current giftedness program meets criteria for a full-scale program evaluation at a future date. Some of the criteria that will be looked at include the program’s mission, goals, and objectives. Thus, this study seeks to gather information to better define the giftedness program, therefore allowing key people in your district to improve the program’s performance and achieve an optimal outcome.

This study will consist of two parts. The first part will include a review of relevant documents, such as the current giftedness curriculum, the assessment tools used to select students for the giftedness program, as well as any written information regarding legislation and guidelines for elementary school giftedness programs. The second part will involve brief interviews with the key stakeholders in your district who help to implement or oversee the giftedness program. Ideally, this would include the giftedness teacher, the principal of the elementary school, and possibly a director of curriculum, as well as yourself; however, participation in the interview process is strictly voluntary. The content of these interviews will focus on determining the goals and objectives of these key people in regards to the giftedness program. Additionally, a few classroom observations for the purpose of examining how the program is currently being implemented may also be valuable.

There are no known risks to any of the participants involved in this study (the students or the stakeholders who will be interviewed). Additionally, no identifiable information about the school, the district, the faculty, or the students will be recorded. This includes names, addresses, phone numbers, dates of birth, etcetera. The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this study is published, or the results are presented at a professional conference, only group results will be stated, unless you have agreed otherwise.

Finally, the data that will be collected may lead to an increased understanding of the factors that create an effective elementary school giftedness program. I would be happy to provide you with a report of this study when it is completed.

Enclosed are copies of the consent form and interview questions. If you have any questions about the research, you may contact me at (732) 287-8721.

Sincerely,

Jennifer Grant

## APPENDIX C

## CONSENT FORM FOR INTERVIEWS

You are invited to participate in a research study that is being conducted by Jennifer DeFini, a student in the Graduate School of Applied and Professional Psychology at Rutgers University. The purpose of this research is to learn more about the giftedness program in \_\_\_\_\_ Elementary School. The title of the research project is: *“An Evaluability Assessment of an Elementary School Giftedness Program for Third Through Fifth Grade Students.”* An “evaluability study” will determine to what degree the current giftedness program meets criteria for a full-scale program evaluation at a future date. Some of the criteria that will be looked at include the program’s mission, goals, and objectives. Your participation in this study may not benefit you directly; however, the knowledge that is obtained from your participation may allow key people in your district to improve the giftedness program’s performance and achieve an optimal outcome for your school’s gifted population.

You have been selected as one of three potential interviewees due to your key involvement in either implementing or overseeing the giftedness program. Your participation in this study would involve being interviewed by Ms. DeFini for approximately 45 minutes.

If you agree to take part in the study, any information that could identify you will be removed from all documents. There will be no way to link your responses back to you. Therefore, data collection is anonymous. Anonymous implies that I will not record your name, address, phone number, date of birth, etc. The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this study is published, or the results are presented at a professional conference, only group results will be stated, unless you have agreed otherwise.

There are no foreseeable risks if you decide to participate in this study. Additionally, participation in this study is voluntary. You may choose not to participate, and you may withdraw at any time during the study’s procedures without any penalty to you. In addition, you may choose not to answer any questions with which you are not comfortable.

If you have any questions about the study procedures, you may contact Jennifer DeFini at (908) 228-2248. If you have any questions about your rights as a research subject, you may contact the Sponsored Programs Administrator at Rutgers University at:

Rutgers University Institutional Review Board for the Protection of Human  
Subjects  
Office of Research and Sponsored Programs  
3 Rutgers Plaza  
New Brunswick, NJ 08901-8559  
Tel: 732-932-0150 ext. 2104  
Email: [humansubjects@orsp.rutgers.edu](mailto:humansubjects@orsp.rutgers.edu)

You will be given a copy of this consent form for your records. Sign below if you agree to participate in this research study:

Subject \_\_\_\_\_ Date \_\_\_\_\_

Principal Investigator \_\_\_\_\_ Date \_\_\_\_\_