ABSTRACT

Title of dissertation: SCHOOL COUNSELORS' KNOWLEDGE, PERCEPTIONS, AND INVOLVEMENT CONCERNING GIFTED AND TALENTED STUDENTS

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The purpose of this study was to explore school counselors' knowledge and perceptions of gifted and talented students, and to investigate whether these variables influenced their involvement with such students. The following questions were examined: 1) What are the multiple dimensions underlying school counselors' *knowledge* and *perceptions* of, and *involvement* with gifted and talented students? 2) What is the relationship between school counselors' knowledge of gifted and talented students and their involvement with such students? 3) What is the relationship between school counselors' perceptions of gifted and talented students and their involvement with such students? 4) Do school counselors' knowledge, perceptions, and involvement concerning gifted and talented students differ significantly across demographic variables?

In order to answer these questions, a survey instrument was developed based on an extensive review of the professional literature. Of the approximately 650 surveys mailed to names randomly selected from the American School Counselor Association's membership, 320 were returned and usable (48.9% return rate). Using principal components analysis with varimax rotation, two dimensions were identified underlying the construct of knowledge, nine dimensions were identified underlying the construct of perspectives, and three dimensions were identified underlying the construct of involvement, one of which was "advocacy." Results indicated that general GT knowledge

seemed to predict all three dimensions of school counselors' reported involvement with gifted and talented students, and that identification knowledge significantly predicted advocacy. Limited predictive value of perceptions for involvement was found.

Other findings indicated the following statistically significant differences: 1) more experienced counselors reported more knowledge of and involvement with gifted and talented students than those with less experience; 2) high school counselors tended to report less involvement than middle school or elementary school counselors; 3) counselors who worked in schools with over 50% of the students receiving free or reduced lunch reported less involvement than did counselors working in schools with a lower percentage of students receiving free and reduced lunch, and 4) counselors working in schools with a GT program and/or a GT specialist reported more knowledge and involvement than counselors working without such a program or specialist. This study has training and practice implications for school counselors.

SCHOOL COUNSELORS' KNOWLEDGE, PERCEPTIONS, AND INVOLVEMENT CONCERNING GIFTED AND TALENTED STUDENTS

by

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Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2004

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DEDICATION

I dedicate this dissertation, with love and gratitude, to my fiancé, Peter Brown, whose encouragement, support, and belief in me helped see this study through. Moreover, his proofreading skills are incomparable. I could not have completed this dissertation without his sharing in my dream to complete my second doctoral degree.

I also wish to dedicate this work to my children, Seth Carlson and Rachel Carlson, who have always been wonderfully supportive of me. Their willingness to help—from returning library books to providing highly sophisticated computer expertise —has been vital to this dissertation process. More importantly, they are vital to my life.

ACKNOWLEDGMENTS

I would like to express my deep appreciation and gratitude to the following people for their contributions to completing this study:

Dr. Cheryl Holcomb-McCoy, my doctoral advisor and chair, to whom I owe a special debt of gratitude. A top researcher in her field, Dr. Holcomb-McCoy's expertise helped lead me to my dissertation topic, and her gentle guidance, support, and friendship were in evidence throughout the whole process. Her belief in my ability to complete this degree in a timely fashion was invaluable.

The members of my dissertation committee: Dr. Courtland Lee, Dr. Natasha Mitchell, Dr. Steven Selden, and Dr. William Strein. Dr. Lee's experiences as a leader in educational reform were inspirational. Dr. Mitchell's encouragement and insightful feedback were very much appreciated. Dr. Selden's perspectives concerning gifted and talented students helped change and shape my own, and Dr. Strein's fine editorial eye was essential.

Dr. Kenneth Greenberg, my doctoral advisor until his retirement, whose knowledge of school counseling and whose incredible empathy helped get me through the more difficult times of this dissertation process.

Dr. Julia Bryan, for her friendship and her brilliance in statistical analyses which she made available to me at any hour of the day.

William Rorison, for his kindness in making room in his teaching schedule, as well as his own doctoral studies schedule, to answer my statistical questions.

Amin Salaam, for his friendship and expertise in word processing.

Dr. George Arlotto, my school principal, for the fine example he set for me in pursuing his doctorate, as well as his encouragement.

Claire Ward, for her willingness to “go the extra mile,” including taking my (almost) daily phone calls to the CAPS Department at the University of Maryland.

Meg Zorn, my daughter-in-law, for sharing her enormous talent in computer graphics for this project.

Bristol Brown and Omar Paredes, for their help in preparing the mailing.

My parents, Dr. Gladys Lipton, a gifted educator in gifted and talented education, and Robert Lipton, a gifted science teacher and writer, for providing professional role models for me and instilling in me the virtues of knowledge and perseverance.

Asa Brown and Tyler Brown, for their enthusiasm for this project.

Members of my doctoral cohort, for helping to ease the way, especially Dr. Judy Trigiani and John DiPaula.

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CHAPTER I: INTRODUCTION

According to some educators, there is a "quiet crisis" in educating gifted and talented students (Davis & Rimm, 1998). These proponents of gifted and talented programs have borrowed the term "quiet crisis" from the United States Department of Education's report entitled "National Excellence: A Case for Developing America's Talent" (1993). This report cited the disparity of performance between gifted and talented students in the United States and those of similar students in other countries, the lack of concern for their educational welfare, the lack of training of regular classroom teachers to meet the needs of the gifted and talented, the lack of funds for educating these students (2 cents out of every $100 spent on general education students), and the need to provide extra support to overcome barriers to achievement for gifted and talented economically disadvantaged and minority students.

The "quiet crisis" in meeting the needs of gifted and talented students, according to some, has been simmering beneath the surface for some time now. In 1978, an unofficial survey conducted by the Bureau for the Gifted and Talented of the Office of Education reported that only 12% of an estimated 2,580,000 gifted and talented population were being served (Beaumont, 1978). According to another government report (National Commission on Excellence in Education, 1983), over half the population of gifted and talented students was underachieving. Fifteen years later, Davis and Rimm (1998) found that "tens of thousands of gifted and talented children and adolescents are sitting in their classrooms—their abilities unrecognized, their needs unmet" (p. 1).

Many of these gifted and talented children whose abilities remain unrecognized are economically disadvantaged and/or from ethnic or racial minority backgrounds. National

data show that these students typically are underrepresented in programs for the gifted and talented (Davis & Rimm, 1998; Reichert, 1997; Renzulli & Reis, 1997). Landrum, Katsiyannis, and DeWaard (1998) reported that less than 1% to 5% of minority gifted learners are identified. Indeed, Davis and Rimm (1998) observed that minority and culturally different gifted and talented students are not easily identified. They stated that "because of cultural bias in test instruments and other identification methods, many typical procedures actually obscure their giftedness by 'proving' these children are *not* gifted" (p. 253). Moreover, low income and racial and ethnic minority children have been shown to be overrepresented in special education classes for emotional and behavioral disorders (Martin, 2002; Evans, 1997).

Estimates of the number of gifted and talented students in the population vary, and are linked to the definition of giftedness and talent employed. Individual school districts and states define giftedness and talent based on 1) priorities regarding the kind or kinds of abilities identified for development, and 2) budgetary considerations (Pendarvis, Howley, & Howley, 1990). In general, the more limited the funds available, the more restrictive the definitions of giftedness and talent. Similarly, for school districts and states that mandate special education for all identified gifted and talented students, the criteria for eligibility for these special programs tend to be the most restrictive. Pendarvis, Howley, and Howley (1990) noted that states using a cutoff score from an intelligence test to determine giftedness and talent—a more restrictive approach—tend to define as gifted and talented those students whose scores fall two or more standard deviations above the mean, or approximately the ninety-seventh or ninety-eighth percentile. Culross (1989) observed that the most widely accepted estimate of the incidence of gifted and

talented students was five percent. The National Association for Gifted Children (NAGC) (2003) indicated that it is generally recognized that approximately five percent of the total student population in the United States are considered gifted—that is to say, three million children.

Rationale

Gifted and Talented Education

Although it has been reported that some people, including some teachers, believe that gifted and talented children will identify themselves and can take care of themselves (Davis & Rimm, 1998; Tomlinson, 1994), others believe that gifted and talented children will often try to minimize their own abilities in order to resemble others and to avoid being singled out as "different" (Davis & Rimm, 1998; Silverman, 1993; VanTassel-Baska, 1990). Moreover, it has been argued that gifted and talented students of color may not manifest their giftedness and talent in ways that match those of non-minority students, due to 1) specific issues that arise from growing up in a racist society, 2) the difficulties of developing a positive racial identity in a racist world, 3) the challenges of bilingualism, and 4) issues that arise from living in poverty (Evans, 1997). The assumption that gifted and talented children can survive on their own and rise to the top has been challenged by Colangelo (2002). In addition, Rimm (1998) found in her research that ten to twenty percent of high school dropouts tested in the gifted range. Davis and Rimm (1998) argued that gifted and talented students, like disabled students, deserve to be educated in a manner consistent with their needs and abilities.

Arguments for meeting the needs of gifted and talented students center on the need for helping such students develop their potential for both their own well-being as well as the good of society (Renzulli & Reiss, 1999; Parker, 1988). Some have even stated that the future of this nation is contingent upon the utilization of the full potential of all gifted and talented students (Renzulli & Reiss, 1999). Borrowing language from the United States Department of Education's "National Excellence" report (1993), some educators argue that when gifted and talented children are neglected, society squanders a valuable natural resource (Davis & Rimm, 1998; Pendarvis, Howley, & Howley, 1990). Colangelo and Davis (1997) described society's love-hate relationship with giftedness and talent, since to nurture excellence seems to threaten our society's commitment to egalitarianism. These writers argued that excellence and equity should not be viewed as mutually exclusive, and that society must help all individuals fulfill their potential, whatever that might be. Davis and Rimm (1998) expanded upon this notion by stating that our democratic system promises each individual, regardless of disability, and regardless of gender, economic, racial, or ethnic background, the opportunity to develop as far as that individual's gifts and talents and motivation will permit. This position is in keeping with ASCA's code of ethics, which states that "the school counselor is concerned with the total needs of the student (educational, vocational, personal, and social) and encourages the maximum growth and development of each counselee" (ASCA, 1992, p. 2.) Clark (1997) stated that "in a democracy, equal opportunity cannot and must not mean the same opportunity" (p. 7). She also observed that giftedness was a dynamic quality that must be nurtured by the environment in order to grow. If gifted and talented children are not challenged by learning experiences, their talents cannot be fully developed. She further

argued that unchallenged individuals frequently become bored, discouraged, and angry, and suffer physical and psychological pain, creating a "critical need" for improving services for the gifted (p. 9).

A growing number of educators, however, as part of the national restructuring and "detracking" movements in schools, are attacking gifted programs on the grounds that they violate equity (Richert, 1997). These educators maintain that tracking plans are racist and discriminatory and deprive students who are not identified as gifted and talented of educational opportunities (Sapon-Shevin, 1994; Oakes, 1985). They advocate an inclusive, multilevel, multimodality classroom "where everyone belongs, is accepted, supports, and is supported by his or her peers and other members of the school community in the course of having his or her educational needs met" (Sapon-Shevin, 1994, p. 65).

Counseling Gifted and Talented Students

Although gifted and talented children require some of the same basic counseling interventions as children in the general population, because of their unique talents and the possible concomitant issues, it has been argued that gifted and talented children also have need of differentiated guidance and personalized counseling (Colangelo, 2002; Milgram, 1991; VanTassel-Baska, 1990). As early as the 1920's, the professional literature has called for more attention to be focused on the counseling needs of the gifted and talented (Hollingworth, 1926). However, a comprehensive conceptualization of giftedness and talent has not been developed to provide a theoretical approach to intervening with the gifted (Milgram, 1991; VanTassel-Baska, 1990). A position statement of the American School Counselor Association (ASCA, 2001) identified the professional school counselor

as “integral” to the full development of gifted and talented students. This position statement suggested, among other recommendations, that the school counselor provide leadership in the establishment of training and awareness programs concerning the gifted and talented to staff, parents, and administrators, provide group and individual guidance and counseling to all gifted and talented students, and continue to upgrade knowledge and skills in the area of the gifted and talented.

The professional literature is replete with references of ways in which school counselors should become involved with their gifted and talented students. Identification has been highlighted as an important role in which school counselors should assist (ASCA, 2001; VanTassel-Baska, 1997; VanTassel-Baska, 1990; Walker, 1982). School counselors have been urged to take on an advocacy role for equitable identification practices that help remove barriers for ethnic and racial minorities underrepresented in programs for the gifted and talented (Guidon, 2003; Lightfoot, 2002). Counseling (both individual and group) has also been identified as an essential role (Colangelo, 2002; Davis & Rimm, 1998; Colangelo & Davis, 1997; VanTassel-Baska, 1997; VanTassel-Baska, 1990; Landrum, 1987; Walker, 1982; Zaffrann, 1978). Other prescribed involvement included consultation (Colangelo, 2002; Davis & Rimm, 1998; Colangelo & Davis, 1997; VanTassel-Baska, 1997; VanTassel-Baska, 1990; Deiulio, 1984; Walker, 1982; Zaffrann, 1978), collaboration (Colangelo, 2002; Davis & Rimm, 1998; Colangelo & Davis, 1997; VanTassel-Baska, 1997; VanTassel-Baska, 1990; Landrum, 1987; Walker, 1982), information clearinghouse (Davis & Rimm, 1998; VanTassel-Baska, 1997; VanTassel-Baska, 1990; Walker, 1982), professional development (Colangelo, 2002; ASCA, 2001; Colangelo & Davis, 1997), evaluation and research (Davis & Rimm,

1998; Deiulio, 1984; Walker, 1982; Zaffrann, 1978), and advocacy (ASCA, 2001; Davis & Rimm, 1998; VanTassel-Baska, 1997; VanTassel-Baska, 1990; Deiulio, 1984; Walker, 1982; Zaffrann, 1978).

The school counselor role of advocate has become increasingly important as school reform efforts have intensified. School counselors are key to promoting equity for all students by removing institutional, systemic, and situational barriers to high levels of achievement (Hanson & Stone, 2002), but typically they function more as gatekeepers than as advocates (House & Hayes, 2002). Indeed, school counselors may contribute to the achievement gap between poor students and students of color and their more advantaged peers by engaging in "tracking" practices that keep some students in low-level courses for their entire school careers (House & Hayes, 2002; House & Martin, 1998). As a result, these students find themselves at a disadvantage in the job market, unable to compete for higher-paying jobs. School counselors must commit themselves to social responsibility, social justice, and advocacy by seeing themselves as agents of change and advocating on behalf of all students (Bailey, Getch, & Chen-Hayes, 2003; The Education Trust, 2003; House & Martin, 1998; Lee & Sirch, 1994). This transformed counselor role does not exclude meeting the needs of the gifted and talented. Sapon-Shevin (1994) observed that "advocates of full inclusion and those who struggle for appropriate education for students identified as gifted must not become entrenched enemies. There is little that is incompatible in the vision of both groups: schools that teach, challenge, and honor children for who they are" (p. 8). She concluded that "if we can look at aspects of the current system that are not working for students labeled as gifted as barometers of an unsuccessful system rather than as justification for removing

students to a better subsystem, then we can work together toward far-reaching, comprehensive school reform for all students" (p. 9).

School Counselors' Knowledge of Gifted and Talented Students

Although no empirical studies were found in the professional literature concerning the relationship between school counselors' knowledge about gifted and talented students and their level of involvement with these students, it was suggested that more knowledge about these students would result in the provision of better counseling services (Colangelo, 2002; Davis & Rimm, 1998). Counselors are in need of knowledge concerning the unique cognitive and affective needs of this population, as well as knowledge regarding specific intervention strategies that work best with these students (Colangelo, 2002; Davis & Rimm, 1998; VanTassel-Baska, 1990; St. Clair, 1989). As early as 1982, Walker reported that "knowledge in understanding the nature and needs of the gifted and talented will also need to be developed and extended to provide appropriate programs for the populations served" (p. 369). Colangelo (2002) was adamant that for counselors to be successful in helping the gifted and talented, "they need knowledge and expertise both in counseling and gifted and talented education" (p. 16).

Silverman (1993) appealed to counselors to become knowledgeable about the difficulties of being gifted and talented as follows:

> What does it feel like to be gifted? Mined as a national resource, ignored in the name of egalitarianism, flaunted for their achievements, chastised for not living up to their potential, taunted by their peers when they work too hard, laughed at when they care too much, silenced when they see too much: to be gifted is to be *vulnerable*…Who is there to

> turn to who really understands? Counselors are needed who comprehend the complex inner lives of the gifted as well as their difficulties living in a world in which they feel alien (p. 631).

There was an outpour of sentiment among professionals in the literature that counselors are in need of training concerning gifted and talented students (Colangelo, 2002; Davis & Rimm, 1998; Evans, 1997; VanTassel-Baska, 1990; Parker, 1988; Betts, 1986; Kerr, 1986; Myers & Pace, 1986; Tolbert, 1982).

Unfortunately, training programs for school counselors do not generally include the counseling needs of gifted and talented students as an area of competence (Evans, 1997). More than a decade ago, VanTassel-Baska (1990) reported that workshop presentations pertaining to this topic tended to take existing counseling theories and practices and only slightly modify them for gifted and talented students. The situation is even direr for training opportunities for professionals who work with gifted and talented minority students (Evans, 1997). "The counselor who dismisses the possibility that a child is gifted because he or she is Black and poor and who is unaware of his or her own racism poses a real danger to the gifted African American child" (Evans, 1997, p. 19). Proficiency in meeting the counseling needs of the gifted and talented is often restricted to the independent efforts of counselors with a special interest in this area and not through any systematic training (Evans, 1997). Furthermore, the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) does not include meeting the counseling needs of gifted and talented children in any of their standards. Colangelo (2002) expressed "frustration" at the minimal attention paid by the counseling field to gifted and talented students, stating that "it is the very rare counselor training program

that requires counselors to take a course on gifted students as a degree requirement," resulting in the fact that "school counselors are grounded in counseling but not in theories of giftedness" (p. xiii).

School Counselors' Perceptions of Gifted and Talented Students

Although a handful of empirical studies that focused on the perceptions of teachers, school psychologists, parents, and/or students toward gifted and talented children were reported in the literature (Copenhaver & McIntyre, 1992; Bransky, 1987; Crammond & Martin, 1987; Colangelo & Kelly, 1983; Weiner, 1968; Weiner & O'Shea, 1963), there was barely any evidence concerning the perceptions of school counselors concerning gifted and talented children, nor how their perceptions impacted their involvement with these students.

Only one empirical study was found that investigated school counselors' attitudes toward gifted and talented children (Deiulio, 1984). This study reported that not all school counselors reported positive attitudes toward gifted and talented children. Kerr (1986) also observed that counselors often believed that the gifted and talented did not need their attention. VanTassel-Baska (1990) stated that school counselors did not perceive the need for training on the emotional development of the gifted and talented. The relationship between the perceptions of school counselors concerning gifted and talented education and the quality of their involvement was underscored in the United States Office of Education's report on the education of the gifted and talented that concluded that identification of the gifted and talented was often hampered not only by costs but by "apathy and even hostility among teachers, administrators, guidance counselors, and psychologists" (Marland, 1971, p. 3**).** It should be noted that since this

commentary was written so many years ago, it may not hold true for today's school counselors.

The perceptions of today's school counselors concerning gifted and talented students are unknown, nor has there been any research conducted to determine how knowledgeable they are concerning these students. Furthermore, no studies have investigated whether school counselors' knowledge and perceptions might influence their involvement with their gifted and talented students.

Purpose of the Study

This investigation explored school counselors' knowledge and perceptions of gifted and talented students, and investigated whether these variables influenced their involvement with such students. More specifically, the following questions were examined:

1. What are the multiple dimensions underlying school counselors' *knowledge* and *perceptions* of, and *involvement* with gifted and talented students?
2. What is the relationship between school counselors' knowledge of gifted and talented students and their involvement with such students?
3. What is the relationship between school counselors' perceptions of gifted and talented students and their involvement with such students?
4. Do school counselors' knowledge, perceptions, and involvement concerning gifted and talented students differ significantly across demographic variables such as counselors' years of counseling experience, gender, highest educational level attained, ethnic background, previous training in gifted and talented programming, place of training such training occurred, graduate counseling

program's accreditation, school setting, percentage of students receiving free or reduced lunch, type of school, number of counselors in the school, presence of a gifted and talented program and/or specialist in the school, and percentage of case load comprised of gifted and talented students?

Need for the Study

This study was significant because it was the first of its kind to ask school counselors how involved they were with gifted and talented students. No empirical studies had ever investigated school counselors' knowledge of gifted and talented students. Only one empirical study was found that investigated school counselors' perceptions of gifted and talented students, and that study was undertaken twenty years ago. Furthermore, no one had investigated which variables might influence school counselors' involvement with gifted and talented students. Finally, no studies, empirical or otherwise, had examined if there were multiple dimensions underlying school counselors' knowledge and perceptions of, and involvement with gifted and talented students. These dimensions would help school counselors better understand the constructs of school counselors' knowledge, perceptions, and involvement in regard to gifted and talented students, especially since the professional literature on giftedness and talent deals with a multitude of topics with little consensus. These dimensions would also serve to make any research data collected more meaningful, as well as to have applications for counselor training.

Although the professional literature exhorted the school counseling profession to be knowledgeable about gifted and talented education and to provide differentiated counseling to their gifted and talented students, it is not certain that school counselors agree with these recommendations. Since some past research indicated that school

counselors may hold less than favorable perceptions toward gifted and talented students, it seemed important to find out whether these negative perceptions were still held today.

Because of the lack of training of many counselors in meeting the needs of gifted and talented students, this study has implications for pre-service and in-service training in counselor education. At some point in the future, a training model for counseling gifted and talented students should be developed. There is some evidence that such a training model could be developed within a multicultural perspective, since the scope of the term "multicultural" is not limited to differences in race and ethnicity only, and may be broadened to apply to such groups as gays and lesbians, the disabled, and the "able" (e.g., the gifted and talented). Minimal cross-cultural competencies for training counselors were developed and subsequently revised by the Association for Multicultural Counseling and Development, a division of the American Counseling Association (Arredondo et al., 1996). These competencies include the following areas: 1) beliefs and attitudes, 2) knowledge, and 3) counseling skills. Therefore, it could be argued that school counselors need to develop competencies in sensitivity and awareness, knowledge, and counseling skills in working with the gifted and talented, and any training model must address all three areas.

This study also has many implications for future research. Being the first empirical study of its kind, it provides data that can, in turn, serve as the starting point for further research concerning other variables that may predict school counselor involvement with gifted and talented students. Data might also be used in the development of a model to provide differentiated counseling to gifted and talented students. One important new research direction might be to identify variables that may predict school counselor

involvement with minority gifted and talented students. Another future study might focus on the counseling needs of gifted and talented students, using them as the subjects of the study.

Definition of Terms

Several terms, presented in alphabetical order, were pertinent to the present study. They were defined in accordance with the aims of this investigation.

1. Gifted and talented refers not only to children who give evidence of high performance capability in intellectual areas, but also to children who may give evidence of high performance capability in specific academic fields, or in areas such as creative, artistic, psycho-social, intrapersonal (e.g. understanding of one's self), psycho-motor, or leadership capacity, and who require services or activities not ordinarily provided by the school in order to fully develop such capabilities.
2. Involvement refers to school counselors' participation in activities prescribed by the professional literature pertaining to gifted and talented students, including advocating for equitable identification procedures for students from diverse backgrounds, including ethnic, racial, disadvantaged, disabled, and cultural minorities.
3. Knowledge refers to school counselors' familiarity with topics that might influence school counselors' involvement with gifted and talented students, such as 1) general knowledge that includes the historical overview of gifted and talented education, as well as the emergence of counseling as a strong force in this area, the various definitions of giftedness and talent, the rationale for providing differentiated counseling services to gifted and talented students, the

characteristics of gifted and talented children, as well as problems that may be encountered by them, various counseling intervention strategies that may be used with gifted and talented students, and the identification process with gifted and talented students, including an awareness of the need for equitable identification procedures that do not exclude racial and ethnic minority students, and

2) academic, social-emotional, and career development issues of the gifted and talented.

4. Multipotentiality in the literature on gifted and talented education refers to individuals who have a wide variety of diverse abilities and interests, any one of which could be developed to a high level.
5. Perceptions refer to school counselors' attitudes, beliefs, misconceptions, and feelings about topics that might influence school counselors' involvement with gifted and talented students, including the role of the school counselor, as well as the academic and social-emotional issues of gifted and talented students.

CHAPTER II: REVIEW OF THE LITERATURE

This chapter presents a review of the literature pertaining to gifted and talented education, conducted with a view toward suggesting variables that might possibly influence school counselors' involvement with gifted and talented students. The literature was reviewed from the following perspectives: 1) an historical overview of gifted and talented education, as well as the emergence of counseling as a strong force in this area, 2) various definitions of giftedness and talent, 3) the rationale for providing differentiated counseling services to gifted and talented students, 4) the characteristics of gifted and talented children, as well as issues and problems that may be encountered by them, 5) counseling intervention strategies with gifted and talented students, 6) identification process with gifted and talented students, including equitable practices that help remove barriers for ethnic and racial minorities underrepresented in such programs, 7) the kinds of knowledge school counselors might have concerning gifted and talented students that might influence their involvement with these students, including general knowledge, academic issues, social-emotional issues, and career development, and 8) the kinds of perceptions school counselors might have concerning gifted and talented students that might influence their involvement with these students, including the role of the school counselor, and the academic and social-emotional issues of gifted and talented students (See Table 1 for variables possibly influencing school counselors' involvement with gifted and talented students, as well as references.) In addition, literature pertaining to school counselors' involvement with gifted and talented students (e.g. prescribed activities and specific role behaviors) was reviewed.

Table 1

Variables Possibly Influencing School Counselor Involvement With GT Students

VARIABLES	POSS. DIMENSIONS	SPECIFIC TOPICS	SUGGESTED BY
Knowledge	General GT knowledge	Historical overview of giftedness and talent	Colangelo, 2002; Davis & Rimm, 1998; Clark, 1997; St. Clair, 1989
		Definitions of GT	National Association for Gifted Children, 2003; Renzulli, 1978; Marland, 1971
		Rationale for differentiated counseling to GT	Colangelo, 2002; Davis & Rimm, 1998; VanTassel-Baska, 1997; VanTassel-Baska, 1990; St. Clair, 1989; Landrum, 1988; Marland, 1971
		Characteristics of GT students	NAGC, 2003; Clark, 1997; Webb, 1993; Manaster & Powell, 1983; Seagoe, 1974
		Intervention strategies	Colangelo, 2002; Davis & Rimm, 1998; Clark, 1997; Colangelo & Davis, 1997; VanTassel-Baska, 1997; Landrum, 1987
		Myths about GT students	Clark, 1997; Munger, 1990; Rimm, 1997; Martinson, 1975
		Individual differences among GT students	VanTassel-Baska, 1990; Betts & Neihart, 1988
	Academic issues	Identification process	Coleman, 2003; Davis & Rimm, 1998; Clark, 1997; Colangelo & Davis, 1997; Coleman & Gallagher, 1995; Walker, 1982; Martinson, 1975
		Academic choices & course selection	Colangelo, 2002; Davis & Rimm, 1998; Rimm, 1997; VanTassel-Baska, 1997; Parker & Adkins, 1995; Brown, 1993; VanTassel-Baska, 1990
		Remedial reading and study skill needs	Rimm, 1997; Brown, 1993; Zaffrann, 1978
		Underachievement	Colangelo, 2002; Rimm, 1997; Brown, 1993
		Behaviors of GT in a heterogeneous classroom	Rimm & Davis, 1998; Silverman, 1993; VanTassel-Baska, 1990
Social-emotional issues		Social-emotional counseling needs	Neihart, 1999; Davis & Rimm, 1998; Webb, 1994; Silverman, 1990; Manaster & Powell, 1983; Zaffrann, 1978

Table 1 (continued)

Variables Possibly Influencing School Counselor Involvement With GT Students

VARIABLES	POSS. DIMENSIONS	SPECIFIC TOPICS	SUGGESTED BY
		Feelings experienced by GT students	Silverman, 1993; Manaster & Powell, 1983; Zaffrann, 1978
		Impact of perfectionism on self-esteem	Davis & Rimm, 1998; VanTassel-Baska, 1997; Rimm, 1997; Parker & Adkins, 1995
		Impact of a heightened sensitivity	VanTassel-Baska, 1997; Gallagher, 1990; Silverman, 1990; Manaster & Powell, 1983
		Developmental counseling approaches	Colangelo, 2002; Zaffrann & Colangelo, 1977
		Remedial counseling approaches	Colangelo, 2002; Zaffrann & Colangelo, 1977
		Research on counseling needs	Colangelo, 2002; Neihart, 1999; VanTassel-Baska, 1990
	Career development	Unique career development needs & multipotentiality	Colangelo, 2002; Davis & Rimm, 1998; Rysiew, Shore, & Leeb, 1999; Kerr, 1986; Zaffrann, 1978
		Impact of perfectionism on career choices	Colangelo, 2002; Rysiew, Shore, & Leeb, 1999; Kerr & Colangelo, 1988; Zaffrann, 1978
		Impact of others' expectations	Colangelo, 2002; Rysiew, Shore, & Leeb, 1999; Zaffrann, 1978
Perceptions	School counselor role	Degree of assistance required from school counselors	Colangelo, 2002; Davis & Rimm, 1998; Van Tassel-Baska, 1990; Munger, 1990; Parker, 1988
		Likelihood of requiring outside referral for GT students	VanTassel-Baska, 1990
		Degree of need of GT students for differentiated counseling services	Silverman, 1990; Parker, 1988; Landrum, 1987

Table 1 (continued)

Variables Possibly Influencing School Counselor Involvement With GT Students

VARIABLES POSS. DIMENSIONS	SPECIFIC TOPICS	SUGGESTED BY
	Degree of need for school counselors with knowledge about GT issues	Colangelo, 2002; Copenhaver & McIntyre, 1992; Silverman, 1990; Parker, 1988; Walker, 1982
	Degree of enjoyment in counseling GT students	VanTassel-Baska, 1990; Marland, 1971
	"Fairness" of providing for the needs of GT students	Davis & Rimm, 1998; VanTassel-Baska, 1990; Munger, 1990; Parker, 1988
Academic issues	Likelihood of requiring academic assistance	Brown, 1993; Silverman, 1990
	Degree of intellectual threat to teachers	Copenhaver & McIntyre, 1992; Walker, 1982
	Degree of argumentativeness	Brown, 1993
	Level of tolerance for ambiguity	Brown, 1993
	Degree to which GT students excel in all areas of their life	Silverman, 1990; Brown, 1993
Social-emotional Issues	Likelihood of being psychologically at risk	Colangelo, 2002; Neihart, 1999; Van-Tassel-Baska, 1997; VanTassel-Baska, 1990; Delisle, 1986; Manaster & Powell, 1983
	Degree of social adjustment & acceptance by others	VanTassel-Baska, 1997; VanTassel-Baska, 1990; Munger, 1990; Brown, 1993; Colangelo & Kelly, 1983; Manaster & Powell, 1983
	Feelings of GT students & degree of sensitivity	Copenhaver & McIntyre, 1992; Manaster & Powell, 1983

Historical Overview

Gifted and Talented Education

It has been reported that even as early as 2200 B.C., competitive examinations were used by the Chinese to select candidates for government positions (Renzulli, 1978). However, the treatment of the gifted and talented as compared to those not identified as such, has been fraught with inequities and controversy. In addition, the definitions of giftedness and talent have been controversial, and have been dependent on the values a particular culture holds in esteem.

Sir Francis Galton's Hereditary Genius: An Inquiry into Its Laws and Consequences, published in 1869, was the earliest quantitative psychological study concerning the nature of giftedness and how it could be measured. It became a point of departure for many of the controversial issues in gifted and talented education that have since developed.

Interest in genius persisted through the publication of Lewis Terman's longitudinal studies of 1,528 gifted children in the 1920's and 1930's. Terman modified the French intelligence tests developed by Alfred Binet. Using this new scale, Leta Hollingworth identified students scoring in the highest range and initiated programs for them in New York City schools. She also wrote about their emotional vulnerability.

By World War II, the study of genius was no longer emphasized, and was replaced by interest in intelligence testing. In the late 1950's, researchers began to focus on creativity (Getzels & Dillon, 1973). The launch of the Russian satellite Sputnik, in 1957, brought criticism for the American education system and renewed interest in gifted and

talented education. Some advocated that academic standards be set higher to better compete with the Russians.

By the 1960's, the concept of giftedness had been broadened to include a variety of specific aptitudes as opposed to the exclusive use of a general intelligence criterion (Trezise, 1973; Hildreth, 1966; Witty, 1965). The publication of the U.S. Commissioner of Education's report to Congress (Marland, 1971) provided a definition of giftedness and talent that serves as the basis for most individual states' current definitions of giftedness and talent.

Federal funding for gifted and talented programs decreased in the early 1980's, but the passage of the Javits Gifted and Talented Students Education Act (P.L. 100-297), in 1988, reestablished the Federal Office for Gifted and Talented Education. The U.S. Department of Education's report "National Excellence: A Case for Developing America's Talent," released in 1993, focused on areas of need for educating gifted and talented learners.

Although interest in gifted and talented education has waxed and waned throughout the years, what has remained constant has been the ambivalent societal view of how giftedness and talent, as well as gifted and talented individuals, should fit into a democratic society (Gallagher, 1993). Gifted and talented education has always been a hotly debated policy issue at local, state, and federal levels, and has focused on equity and monetary issues (Gallagher, 1993).

Ability grouping was first introduced to schools in the United States at the turn of the 20th century, buoyed by the new intelligence tests in vogue, and was considered controversial even then (Kulik & Kulik, 1997). It remains highly controversial today.

Critics of ability grouping charge that this practice engages in "tracking" that keeps some students, often poor students and students of color, in low-level courses for their entire school careers, with dire economic and social consequences that may last a life time (House & Hayes, 2001; House & Martin, 1998; Oakes, 1985). Moreover, student classification practices based on intelligence testing have been linked to the eugenics movement of the early 20th century, which believed that controlled breeding could better humanity (Kasper, 2003; Selden, 1983). The practices promulgated by supporters of the eugenics movement served to "legitimize racial discrimination, immigration restriction, and biological sterilization" (Selden, 1983, p. 177). Indeed, people key to the development of the gifted and talented movement—Lewis Terman and Leta Hollingworth—were eugenicists, and Francis Galton was labeled "the father of eugenics" by Hollingworth (Selden, 1983).

While society has rejected the extreme ideas of the eugenics, according to Selden (1983) "we have not discarded their conception of a society based upon biologically inherited merit" (p. 187). Selden's position that educators must advocate for social justice is supported by other researchers who support full inclusion of gifted and talented students and comprehensive school reform for all students (Sapon-Shevin, 1994; Oakes, 1985).

Counseling Gifted and Talented Children

Colangelo (1997) observed that "the emergence of counseling as a major force in the education of the gifted and talented is a phenomenon of the last fifteen years" (p. 363). While the past fifteen years have indeed seen both an increase in publications dealing with counseling gifted and talented students, as well as an appreciation for qualitative

research approaches that made it more feasible for conducting research in the affective domain, counseling gifted and talented children has paralleled developments in gifted education as well as school counseling, in general. Myers and Pace (1986), in their historical overview of counseling gifted and talented students, observed that counseling these students began in the 1920's as an outgrowth of three intellectual movements of the early 1900's: testing and individual differences, child study, and vocational and educational guidance. They believed that the affective needs of gifted and talented children did not receive early attention because of the findings from Terman's longitudinal studies of the gifted that created a myth that gifted and talented children were well adjusted and did not require any differentiated psychological or educational services. Indeed, this finding was misleading, since Terman's sample was later found to be biased, drawing mostly from white and middle-class children identified on the basis of scores on the Stanford-Binet intelligence test. It was not until Hollingworth's investigations of individual children from the New York City public schools, starting in the 1920's, that the unique counseling needs of the gifted were brought to the fore. She observed that the higher the IQ of gifted children, the more likely they were to have adjustment problems, including poor peer relationships and social isolation (Hollingworth, 1942).

Counseling gifted and talented children in the 1950's, according to St. Clair's (1989) historical review of counseling gifted and talented children which picked up where that of Myers and Pace left off, was characterized by the use of the nondirective approaches in vogue, promulgated by Carl Rogers. Counselors of gifted and talented children were advised to encourage their students to take as much responsibility as possible for their

own guidance. Most of the discussions concerning counseling gifted and talented students highlighted descriptions of the gifted and talented, identification, and a general recommendation for guidance or counseling. Major research and guidance programs were established during this decade, such as the Wisconsin Guidance Laboratory for Superior Students and the Guidance Institute for Talented Students (GIFTS).

From the 1950's to the 1970's, John Curtis Gowan was a "major force" in promoting the need for counseling services for the gifted and talented (Colangelo, 1997, p. 353). Despite Gowan's urging for these services, schools were slow to respond, in part due to the lack of general school counseling programs (St. Clair, 1989).

The 1970's saw the development of a clear rationale for meeting the counseling needs of gifted and talented students, which mirrored the rationale for meeting the educational needs of gifted and talented students. The assumption that these children could survive on their own and rise above obstacles was challenged, and evidence was found that many gifted and talented students dropped out of secondary school (Martinson, 1975). Adequate procedures for identifying gifted and talented children were found to be crucial to the realization of their full potential, and failure to identify and provide for these children was observed to often adversely affect their psychological well-being (Martinson, 1975; Marland, 1971). Specific counseling program development began to emerge, which paralleled the development of federal guidelines for identifying gifted and talented students.

The 1980's marked the emergence of numerous centers for research and development of the counseling needs of gifted and talented children, including the Supporting the Emotional Needs of Gifted (SENG) program, founded by James T. Webb

at Wright State University, following the highly publicized suicide in 1980 of Dallas Egbert, an extremely gifted 17-year-old. Other new centers for the gifted and talented sprung up, such as Barbara Kerr's Guidance Laboratory for Gifted and Talented at the University of Nebraska-Lincoln, Silverman's Gifted Child Development Center in Denver, as well as the Connie Belin National Center for Gifted Education (renamed The Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development in 1995), founded by Colangelo and Kerr (Colangelo, 2002). In 1989, St. Clair reported an increase in support for counseling gifted and talented children in the professional literature that suggested that "counseling the gifted is being recognized as a necessary component of gifted programs in schools" (p. 98). Diversity in counseling gifted and talented students became increasingly a focus, as gifted and talented programs began to pay more attention to female gifted and talented students, as well as minority gifted and talented students. A diversity of approaches to counseling gifted and talented students began to be apparent during this decade, as well as a heightened interest in underachievement.

Colangelo (2002) continued the historical overview of counseling gifted and talented children where St. Clair (1989) left off. He characterized the 1990's as a time of focus on gifted students as special needs learners, including students who were both gifted and talented and learning disabled. He noted an interest in family systems and preventative counseling, as well as sexual identity issues during this decade. Colangelo observed that the counseling needs of gifted and talented students have been slow to gain the respect that identification and academic programming issues for gifted and talented students have enjoyed, but finally they are coming into their own. "In 1973 you could count on one

finger all the leaders in gifted education who made counseling issues their primary focus. In 2002 there is considerably more respect and attention for the social-emotional issues regarding gifted children (i.e., attention to counseling needs) than previously" (p. ix). For the rest of this decade, Colangelo predicted a sharper focus on moral issues, as well as a continued focus on the emotional intelligence of children who are gifted and talented.

Although some have chronicled a new wave of interest in gifted and talented education in the 1990's, others have expressed concern that the number and comprehensiveness of programs for the gifted and talented are declining (Purcell, 1995). Three forces were cited for this decline, including the continuing uneasiness about the national economic situation, misconceptions about the needs of gifted and talented students, and the effects of educational reform efforts (Purcell, 1995). Specifically, Renzulli and Reis (1995) targeted the reform movement's tendency to eliminate most forms of grouping. They argued that "simply to allow high ability students to be placed in classrooms in which no provisions will be made for their special needs is an enormous step backwards for our field. To lose our quest for excellence in the current move to guarantee equity will undoubtedly result in a disappointing, if not disastrous, education for our most potentially able children" (p. 26). These authors made a distinction between "grouping" and "tracking," and defended the former term. They viewed tracking as "the general and usually permanent assignment of students to classes that are taught at a certain level, and that usually are taught using a whole-group instructional model" (p. 31). They viewed grouping as being the more flexible (i.e. less permanent) arrangement of students "that takes into consideration factors in addition to ability, and sometimes in place of ability. These factors might include motivation, specific interests,

complementary skills (e.g. an artist who might illustrate the short stories of students in a creative writing group), career aspirations, and even friendships that might help to promote self-concept, self-efficacy, or group harmony" (p. 31). In addition, they advocated for a change in direction in the way giftedness and talent should be viewed. Rather than considering giftedness and talent as an absolute condition "magically bestowed" (p. 34) upon people in the same way that they are endowed with a particular eye or hair color, they proposed the more relative concept that gifted behaviors can be developed in certain people, at certain times, and under certain circumstances. They believed that the professional field should shift its emphasis from labeling students as "gifted" to a concern about the development of gifted behaviors in students who have the highest potential for benefiting from special educational services. These researchers continued that this reconceptualization of giftedness and talent should bring about more flexibility in both the identification process as well as programming provisions for the gifted and talented, and will encourage "the inclusion of at-risk and underachieving students in our programs" (p. 34).

Renzulli (1994) advocated the use of the Schoolwide Enrichment Model (SEM) in inclusive schools that want to be laboratories for talent development. Under this model, a wide range of advanced-level enrichment experiences are provided for all students. In this manner, gifted and talented education research and practices can benefit all children because they can trickle down into on-grade level classes. This position was echoed by Purcell (1995), who observed that the infusion of strategies and techniques of gifted and talented education into all classrooms could provide benefits for every student.

Definitions of Giftedness and Talent

The professional literature presented a multitude of definitions of giftedness and talent, no one of which is universally accepted (Davis & Rimm, 1998). Common usage of these terms by both lay people and experts alike is often "ambiguous and inconsistent" (Davis & Rimm, 1998). Some dictionaries list "gift" as one meaning of "talent" and vice versa, and many authors also use the words interchangeably. Some people see "giftedness" and "talent" on a continuum, with giftedness at the higher end. To complicate matters, there seem to be "degrees" of giftedness and talent along the continuum, with some children who barely meet the established criteria and others who go far beyond them. Cox, Daniel, and Boston (1985) preferred the term "able learners" instead of "gifted," and Renzulli and Reis (1999) championed the phrase "gifted behaviors" which can be nurtured in certain students under certain circumstances, and does not result in the dichotomy of "gifted" and "not gifted" as the result of an identification process.

Regardless of the particular definition of giftedness and talent employed, it can be said that over the last half of the twentieth century, there has been a tendency toward broadening definitions to include multiple abilities and factors. (During the first part of the century, Lewis Terman's restrictive definition was in vogue. People were classified as gifted and talented if they scored at the top one percent level in general intellectual ability as measured by the Stanford-Binet intelligence scale or a comparable instrument.) The federal definitions from 1971, 1978 and 1988 were key to this broadening process.

As stated earlier in this review, most definitions of "gifted and talented" are derived from the original U.S. Office of Education definition (Marland, 1971) as follows:

> Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society.
>
> Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:
>
> 1. general intellectual ability
> 2. specific academic aptitude
> 3. creative or productive thinking
> 4. leadership ability
> 5. visual and performing arts
> 6. psychomotor ability (p. 8).

In 1978, the U.S. Congress slightly revised Marland's definition by removing the category of "psychomotor ability" as an area of giftedness; the rationale was two-fold. First, it was thought that artistic psychomotor abilities could be included in the "performing arts" category, and second, it was felt that athletic programs were already well-funded and provided for outside of gifted and talented programs (Pendarvis, Howley, & Howley, 1990).

The 1988 federal definition of giftedness and talent was shortened even more as follows:

> The term ‘gifted and talented students’ means children and youth who give evidence of high performance capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who require services or activities not ordinarily provided by the school in order to fully develop such capabilities (P.L. 100-297, Sec. 4103. Definitions).

In an effort to expand upon the federal definition of giftedness and talent, Joseph Renzulli (1978) proposed an alternate definition of giftedness, based upon descriptions of creatively productive people, mostly adults, who had made great contributions to society. Citing the failure of federal definitions to take into consideration motivational factors, as well as the nonparallel nature of the categories of giftedness, he distinguished between “fields of human endeavor” (e.g. specific academic aptitudes) and “processes that may be brought to bear on performance areas” (e.g. creativity) (p. 181). He argued that these processes could not exist independently from performance areas to which they can be applied. Renzulli proposed a three-ring concept of giftedness that included three interlocking clusters of traits. Apart, no one cluster resulted in giftedness, but rather giftedness “consists of an interaction among three clusters of traits—above-average but not necessarily superior general abilities, task commitment, and creativity” (p. 184).

Gardner (1983), in his theory of multiple intelligences, described seven separate and fairly independent intellectual domains. Many view Gardner’s seven intelligences as seven types of intellectual gifts. Individuals may be gifted and talented in only one area,

or they may demonstrate gifts and talents in several of these areas. Gardner identified the seven intelligences as follows: 1) linguistic (verbal) intelligence, 2) logical-mathematical intelligence, 3) spatial intelligence, 4) musical intelligence, 5) bodily-kinesthetic intelligence, 6) interpersonal intelligence, and 7) intrapersonal intelligence (e.g. one's understanding of self).

While Renzulli argued to broaden the concept of giftedness and talent by including motivational factors, others emphasized other variables of giftedness and talent such as social, emotional, and ethical components. Coleman and Gallagher (1995) identified nine types of giftedness recognized by state policy as follows: 1) intelligence (49 states), 2) academic (49 states), 3) creativity (41 states), 4) artistic (35 states), 5) leadership (30 states), 6) critical thinking (15states), 7) psycho-motor (11 states), 8) psycho-social (9 states), and 9) understanding of one's cultural heritage (5 states).

In a departure from classical categories of giftedness and talent, Betts and Neihart (1988) used behavior to classify gifted and talented children as follows: 1) "the successful", 2) "the divergently gifted," 3) "the underground," 4) "the dropout," 5) "the physically or emotionally handicapped gifted."

Rationale for Differentiated Counseling

The 1971 federal definition of giftedness and talent officially recognized the need for "differentiated educational programs and/or services beyond those normally provided by the regular school program" (Marland, 1971). This statement has been used over the past three decades to justify the development of gifted and talented programs. However, VanTassel-Baska (1990) found that although inroads had been made in meeting the cognitive needs of the gifted and talented, not much progress had been made in meeting

their affective needs. She suggested that the causes for this lack of progress might be due to a traditional lack of concern for the affective domain by educators, as well as the attitude of some parents that feelings should be dealt with in the home rather than in the school.

A number of professionals in the field of gifted and talented education have called for differentiated counseling for the gifted and talented. St. Clair (1989) reported that even in the 1950's, researchers believed that guidance of the gifted and talented should differ from guidance of non-gifted students because 1) gifted and talented students usually had greater educational and occupational opportunities, 2) gifted and talented students were able to engage in higher levels of self-appraisal and self-conceptualization, and 3) gifted and talented students sometimes faced unusual pressures by parents, teachers, peers, and others. Landrum (1988) observed that although such counseling programs should begin with a broad based approach, since gifted and talented students may have some of the same needs as their non-gifted and talented peers, "those differences that separate gifted and talented students from other students require differentiated program components" (p. 106). A decade later, VanTassel-Baska (1997) stated that "special counseling is needed that extends well beyond that required for a more typical learner" (p. 5).

It has been reported that gifted and talented students appear to have special counseling needs based on their giftedness (Colangelo, 2002). Davis & Rimm (1998) observed "as a general rule, the greater the gift, the greater the counseling need" (p. 389). Their differential characteristics and needs in both the cognitive and affective realms should become the basis for creating differentiated counseling interventions (VanTassel-

Baska, 1990). For example, VanTassel-Baska (1990) suggested that in the cognitive domain, the gifted and talented tended to be able to manipulate abstract symbol systems, retain information at a high rate, and exhibit quickness in learning and mastering the environment. An appropriate counseling intervention might be academic program planning that matches these learner cognitive characteristics. In the psycho-social domain, the gifted and talented tended to exhibit a heightened sensitivity, sense of justice, and perfectionism that might warrant psycho-social counseling interventions that focus on preserving these affective differences. In the career/life planning domain, the gifted and talented tended to demonstrate varied and diverse interests, an internal locus of control, and abilities in many different areas. An appropriate counseling intervention might be to introduce atypical career/life planning models, such as pursuing serial careers, or, more radically, pursuing more than one career at the same time.

Characteristics of Gifted and Talented Children

Individual Differences

Those who advocate for differentiated counseling for gifted and talented students base such counseling upon the general characteristics of these children, as well as pertinent needs and issues that arise from their giftedness and talent. However, it must be kept in mind that gifted and talented children, like all children, are not a homogeneous group. There are many individual differences among the gifted and talented, and each is a unique individual with needs that cannot be satisfied through a single administrative adjustment (NAGC, 2003). The more gifted and talented the student, the fewer

generalizations about the gifted and talented may apply (VanTassel-Baska, 1997). Indeed, as early as the 1960's, Thom and Newell (1965), in a well-cited statement, observed that "extremely high intelligence is as far from normal as is mental deficiency and creates problems of its own that may be as acute" (p. 354). Davis & Rimm (1998) observed that gifted children differed from one another "not only in size, shape, and color, but in cognitive and language abilities, interests, learning styles, motivation and energy levels, personalities, mental health and self-concepts, habits and behavior, background and experience, and any other mental, physical, or experiential characteristic that one cares to look for. They differ also in their patterns of educational needs" (p. 26). Brown (1993) observed that gifted and talented children were more different than they were alike. Any counseling approach must be sure to consider individual differences among the gifted and talented (VanTassel-Baska, 1990).

Myths and Stereotypes

Before focusing on the general characteristics of the gifted and talented, it is important to point out the difference between descriptions that may apply to many gifted and talented children, and myths and stereotypes about these children that present a distorted view of them. For example, Terman's research did much to debunk the myth that gifted and talented students were frail, socially inept, lost in lofty thoughts, ostracized by peers, and bordering on insane (Clark, 1997). "Early ripe, early rot" was the catch phrase to describe such children (Clark, 1997, p. 37). Other myths have arisen, and still impact the attitudes of teachers, administrators, and parents themselves toward gifted and talented children, including the stereotype that gifted and talented children do not require any additional help to get through school because their high abilities enable them

to surmount and rise above barriers and limitations of the environment (Culross, 1982), and the belief that schools should be satisfied if the gifted and talented perform at their appropriate grade for their age (Munger, 1990). Some people even hold the myth that children cannot be both gifted and talented and learning disabled (Munger, 1990).

The literature continues to provide evidence that gifted and talented students, in general, have strong self-concepts, both academically and in social areas as measured by self-concept inventories, although gifted and talented girls, as well as highly gifted and talented learners, may demonstrate less positive self-esteem than their gifted and talented peers (VanTassel-Baska, 1997). Moreover, gifted and talented children who are achieving and who participate in special educational programs designed for the gifted and talented appear to be at least as well adjusted and perhaps better adjusted than their non-gifted and talented peers (Neihart, 1999).

General Characteristics

Although myths and stereotypes about the gifted and talented are largely untrue, Clark (1997) observed that many characteristics recur in groups of gifted and talented children. These traits keep appearing in studies of gifted and talented people.
Clark (1997) distinguished between the highly gifted and the moderately gifted, saying that her list of characteristics existed more intensely and to a higher degree in the highly gifted. She also distinguished between high achievers and gifted and talented individuals, since teachers often confuse the two. She observed that teachers often equate conformity, industriousness, and personal appeal with ability, and tend to be annoyed by students who exhibit independent behavior or who show marked curiosity. Some teachers are insecure when working with the gifted and talented. In general, gifted and talented children

demonstrate higher order thinking skills than their high-achieving, non-gifted and talented peers, such as the ability to generalize, to deal with abstract ideas, and to synthesize seemingly unrelated ideas. The gifted and talented exhibit a wider range and diversity of information and thinking skills than the non-gifted and talented.

Lists of the general characteristics of intellectually gifted and talented students (as opposed to those with specific talents or those of minority gifted and talented students) abound, and tend to be similar in content. The following list of characteristics, compiled by May Seagoe at the University of California at Los Angeles (cited in Martinson, 1975, pp. 20-21) is still often cited today:

1. Keen power of observation; naïve receptivity; sense of the significant; willingness to examine the unusual
2. Power of abstraction, conceptualization, synthesis; interest in inductive learning and problem solving; pleasure in intellectual activity
3. Interest in cause-effect relations, ability to see relationships; interest in applying concepts; love of truth
4. Liking for structure and order; liking for consistency, as in value systems, number systems, clocks, calendars
5. Retentiveness
6. Verbal proficiency; large vocabulary; facility in expression; interest in reading; breadth of information in advanced areas
7. Questioning attitude, intellectual curiosity, inquisitive mind; intrinsic motivation
8. Power of critical thinking; skepticism, evaluative testing; self-criticism

and self-checking

9. Creativeness and inventiveness; liking for new ways of doing things; interest in creating; brainstorming, free-wheeling
10. Power of concentration; intense attention that excludes all else; long attention span
11. Persistent, goal-directed behavior
12. Sensitivity, intuitiveness, empathy for others; need for emotional support and a sympathetic attitude
13. High energy, alertness, eagerness; periods of intense voluntary effort preceding invention
14. Independence in work and study; preference for individualized work; self-reliance; need for freedom of movement and action
15. Versatility and virtuosity; diversity of interests and abilities; many hobbies; proficiency in art forms such as music and drawing
16. Friendliness and outgoingness

The National Association for Gifted Children (NAGC) (2003) provided descriptions of the characteristics of various areas of giftedness and talent, including leadership, creative thinking, visual/performing arts, and specific academic ability. Some of the characteristics of children who exhibit giftedness and talent in leadership include self-confidence, organization, good judgment in decision making, self-expression that is fluent and concise, an ability to foresee consequences and implications of decisions, high expectations for self and others, and a willingness to assume responsibility. Characteristics of children who exhibit giftedness and talent in creative thinking include

thinking that is original in both oral and written expression, thinking that is independent, a sense of humor, an ability to come up with several solutions to a given problem, an ability to improvise often, and an acceptance of being different from the crowd. Characteristics of children who exhibit giftedness and talent in visual/performing arts include an outstanding sense of spatial relationships, an unusual ability for expressing self feelings, moods, etc., through art, dance, drama, or music, good motor coordination, a desire for producing one's own product rather than just mere copying, and a keen sense of observation. Characteristics of children who exhibit giftedness and talent in specific academic areas include good memorization ability, advanced comprehension skills, an ability to quickly acquire basic skills and knowledge, high academic success in the special interest area, a wide breadth of knowledge in the special interest area that comes from being well-read in that area, and enthusiasm and vigor when pursuing this special interest.

Lists of the characteristics of students who are considered gifted and talented in specific subject areas also exist in such areas as science, mathematics, language arts, social studies, art, music, dramatics, dance, mechanical arts, and athletics (Alberty, 1959). Carlson (1981) developed a list of characteristics of students gifted and talented in foreign languages, though no current research has validated these findings.

Problems That May Be Encountered by Gifted and Talented Students

Manaster and Powell (1983), in their seminal work, called attention to the need of gifted and talented students for differentiated counseling for their atypical developmental needs by highlighting their being "out of stage" (cognitive development), "out of phase" (social discrepancies), and "out of sync" (feelings of not fitting in with non-gifted peers).

These authors argued that certain kinds of issues arose for gifted and talented students because of their giftedness.

Some conceptualize the problems experienced by gifted and talented children as arising from either the interaction of these children with the environment (e.g. family, school, or cultural milieu) or internally from the very characteristics that result in giftedness and talent (Webb, 1994).

Clark (1997) provided one of the most comprehensive lists of potential problems that might arise from being gifted and talented, and addressed such areas as cognitive function, affective function, physical/sensing function, and intuitive function. By far, the affective function is the largest, and worthy of discussion here. Clark observed that high levels of cognitive functioning do not necessarily bring high levels of affective functioning. She reported that gifted and talented students are unusually sensitive to the expectations and feelings of others, which gives them a heightened sensitivity to criticism from others and a high need for success and recognition of their accomplishments. They exhibit a keen sense of humor that sometimes is used for biting attacks upon others, which may interfere with developing close interpersonal relationships. They demonstrate a heightened self-awareness, and often are conscious of being different from others, which may lead to feelings of isolation, rejection, and low self-esteem. They are idealistic, which may set them up for unrealistic goals resulting in extreme frustration and depression, and sometimes suicide. They exhibit an earlier development of an inner locus of control, which sometimes leads to nonconformity, which may, in turn, create problems when dealing with authority figures. They have high expectations of themselves as well as of others, which may lead to frustration and damaged interpersonal relations. They

demonstrate leadership ability, which may turn into a negative characteristic (e.g., gang leadership) if it is not nurtured.

Additional issues and problems that may arise from possessing gifted and talented traits have been identified, such as uneven precocity, underachievement (especially in areas that are perceived as uninteresting), and perfectionism, which can be extreme (Davis & Rimm, 1998). Confusion about the meaning of giftedness and talent, feelings of inadequacy, unabating self-criticism, high levels of inner turmoil, unrealistic expectations of others, and hostility from others are also in evidence (VanTassel-Baska, 1997).

Evans (1997) observed that African American gifted children tended to experience similar difficulties as their non-minority counterparts in that they may be sensitive to criticism, perfectionistic, painfully self-aware, and may underachieve.

Implications for School Counselor Involvement

The huge range of characteristics that may apply to students who are gifted and talented, plus the concomitant problems that may arise from these characteristics, present an enormous challenge to school counselors. Together, these characteristics and problems form the basis for a strong intervention on the part of school counselors to help the gifted and talented weather their difficulties and enable them to work toward fulfilling their great potential. However, in most schools, counseling "remains the needed provision rather than the realized one in programs for the gifted," (VanTassel-Baska, 1997, p. 1).

Counseling Intervention Strategies

Developmental and Remedial Approaches

The process of counseling students may be thought of as either remedial or developmental (Colangelo, 2002). Problem solving and crisis intervention are the hallmarks of remedial counseling, where the counselor's role is to help correct problems. The role of the counselor in developmental counseling is to help establish a school environment that is conducive to the ongoing growth and full development (cognitive and affective) of students. Much of the literature cited dates back to the 1980's and late 1970's, when gifted and talented education was receiving a great deal of attention and funding. Some of these finding may not hold true for today.

Rather than being solely a remedial activity for addressing existing problems, counseling the gifted and talented should be viewed as a developmental, preventative process (Blackburn & Erickson, 1986). Culross (1982), in support of a developmental approach to guidance with the gifted, stated that "no one teaches reading by providing instruction only after children develop reading problems" (p. 24). The various developmental levels, ranging from preschool, early childhood, adolescence, and adulthood, must be included. As stated earlier in this chapter, not all gifted and talented students exhibit the same characteristics; likewise, not all gifted and talented students share the same counseling needs nor progress through developmental stages at the same rate. However, Blackburn and Erickson (1986) identified the following five predictable developmental crises experienced by many of the gifted and talented: 1) developmental immaturity, usually experienced by boys in elementary school, often manifested by visual motor delays and less sophisticated verbalization than girls of the same age;

2) underachievement, experienced by both boys and girls, usually in the fourth and fifth grades; 3) adolescence with its concomitant mood swings and biological changes, often manifested by a female fear of success; 4) multipotentiality, occurring in middle and late adolescence whereby the gifted discover they have interests and the potential for success in an overwhelming number of possibilities; and 5) nonsuccess, often occurring after high school, when the gifted and talented often find themselves in situations where they are not performing at the top of the competition.

Betts (1986) identified several key affective areas for curriculum development for the gifted and talented, including 1) awareness, understanding, and acceptance of self; 2) interpersonal skills, including communication skills, interviewing skills, discussion skills, and conflict reduction skills; 3) group process and interaction skills; 4) relaxation and visual imagery; and 5) problems of being gifted, and a nonthreatening environment in which to discuss them.

Buescher (1986), studying adolescents, proposed the following six dynamic issues of giftedness: 1) ownership, where adolescents grapple with whether their giftedness only exists by the recognition of others, or resides within themselves; 2) dissonance, or the chronic level of tension between how the gifted and talented perform and their own expectations; 3) risk-taking, where the adolescent must balance taking new risks or choosing secure positions; 4) others' expectations, where the gifted must balance the expectations of others and their own needs; 5) impatience, or a low tolerance for ambiguity, driving the gifted to search for answers where none exists; and 6) identity, where the gifted have a tendency to reach a premature sense of identity in order to avoid ambiguity and to deal with the pressure of society to mature as rapidly as possible.

The subsequent discussion of specific counseling intervention strategies that may be used when working with gifted and talented students, whether from a developmental viewpoint or a remedial one, is organized around the three critical areas of counseling that are emphasized in most school counseling programs and seem key for the gifted and talented: academic, social-emotional, and career/life planning (VanTassel-Baska, 1997; Landrum, 1987). Group work was found to be an especially effective strategy for working with gifted and talented students, since they are in the minority and can benefit from knowing and interacting with others with similar abilities and feelings (Zaffrann & Colangelo, 1977). Group counseling may counteract feelings of loneliness (Landrum, 1987). Colangelo (1997) warned that merely sitting around and chatting about feelings and values was not enough, and urged the groups to be structured. Personal writing was another strategy offered by Zaffrann and Colangelo (1977), since the gifted and talented are usually very skilled writers and are able to express their personal concerns in writing. They suggested that these students keep a personal journal, as well as write essays in response to suggested topics. Because of the ability of gifted and talented students to understand sophisticated and advanced reading material, bibliotherapy was found to be another useful strategy to help them better understand their abilities (Landrum, 1987).

Strategies that Address Academic Issues

VanTassel-Baska (1997) identified the following academic assistance planning needs for gifted and talented students: 1) to understand academic strengths and weaknesses, 2) to understand how to apply school learning to real-life situations, 3) to become comfortable with metacognitive strategies, and 4) to understand and evaluate choices and opportunities that compete with one another.

Perhaps the strategy with which most school counselors are comfortable when working with gifted and talented students is providing information about course options and programs. The counselor is a key person in assuring that gifted and talented students are enrolled in courses commensurate with their ability level (VanTassel-Baska, 1997). For example, counselors can encourage these students to pursue a rigorous and challenging curriculum of studies, replete with honors and Advanced Placement course work. Effective academic advising necessitates knowledge of what preparation colleges are expecting for high ability students, including advanced foreign language, mathematics, and science courses. In addition, counselors can disseminate scholarship information, as well as information about contests and competitions and summer and academic year program opportunities outside of school.

School counselors can provide testing and assessment information (VanTassel-Baska, 1997). Although gifted and talented students frequently test well on standardized tests, they still need guidance as to what their scores mean, and how they may be used in academic planning purposes. Counselors can help students interpret scores on interest inventories in order to highlight their strengths and weaknesses, as well as their interests and aspirations; in this manner students can begin to set realistic academic and career goals for themselves.

School counselors can provide information to gifted and talented students about opportunities to extend classroom learning to real-life situations such as internships in the community. Not only do students gain valuable experiences that may help them decide on a career direction, but they also can earn high school credit for the experience.

Other strategies that school counselors can use for addressing the academic counseling needs of their gifted and talented students include providing appropriate information about community service learning opportunities and creating mentorships with adult models in the community worthy of emulation. Counselors can also help students with organization and management skills (Walker, 1982).

Strategies that Address Social-emotional Issues

Although citing bibliotherapy and small groups as successful intervention strategies for addressing the social-emotional issues of gifted and talented students, VanTassel-Baska (1997) found little else in the professional literature. She observed that the best way to provide for the social-emotional issues of the gifted and talented was to understand how this population differs from the norm in the affective area, and to use these differences as the basis for systematic interventions. She identified seven important needs of the gifted and talented that differed from the needs of more typical students, and matched each with possible intervention strategies. For example, one of the social-emotional needs of the gifted and talented is to understand the ways in which they are different from other children and the ways in which they are the same. She recommended the use of bibliotherapy techniques, group discussion seminars, and individual dialogue sessions to address this need. (Group discussion seminars might employ the following questions proposed by Davis and Rimm (1998, p. 395):

1) What does it mean to be gifted?

2) How is being gifted an advantage for you? A disadvantage?

3) Have you ever deliberately hidden your giftedness? How?

4) How is your participation in this group different from your regular school day?

5) What is different about being gifted and being a girl? Boy? African American, Hispanic, American, White, etc.?

Other social-emotional counseling needs identified by VanTassel-Baska (1997) included appreciating one's own individuality and that of others, understanding and developing relationship skills, developing an appreciation for one's heightened sensitivity, gaining a realistic assessment of one's abilities and talents and how they can be developed, understanding the difference between "pursuit of excellence" and pursuit of "perfection," and learning how to make compromises. Matching strategies that addressed these needs included biography study, entry into contents and competitions, creative problem solving, role playing, journal writing, outlets for sensitivity such as art, music, and drama, testing and assessment opportunities, "safe" environments in which to experiment with failure, "cooperation games," and goal setting.

Strategies that Address Career/Life Planning Issues

Because of the multipotentiality (ability to do many things well) of many gifted and talented children, and because of their wide interests, VanTassel-Baska (1997) highlighted the need to expose these students to atypical career/life planning models, including delaying career decisions, serial or concurrent careers, pursuing a variety of interests as avocations rather than as careers, synthesizing interests from many fields into one career, and creating new careers. She suggested that career/life planning strategies be introduced in kindergarten and developed through age-appropriate tasks through twelfth grade and include the reading and discussion of biographies, small-group counseling on specific issues, mentor role models, assessment of individual abilities, interests, and personality traits, and internships.

Implications for School Counselor Involvement

The possible counseling interventions for working with gifted and talented students are varied and depend on the skill and expertise of those who carry them out. Although VanTassel-Baska (1997) advocated that trained counselors, parents, and teachers all must take part in a partnership to provide effective counseling for the gifted and talented, and suggested involvement of private counselors, school counselors could initiate all of the interventions mentioned in this section. Because of their large caseload, school counselors tend to engage in group-oriented interventions, except for special cases. As such, they may conduct group seminars on topics related to giftedness and talent, the college admissions process, and planning for each year of high school. They may host college and career nights, plan college visitations, and arrange for internships in selected career areas. In addition, they may provide clinical counseling on specific problem areas.

Basic counseling skills are needed by school counselors when employing intervention strategies with gifted and talented students, and counselors need to be well grounded in individual, group, and family counseling approaches (Colangelo, 1997). However, there is little in the professional literature suggesting which additional skills might be helpful. When working with gifted and talented minority students, Evans (1997) stated the need for counselors to adjust their style of communication to match that of the gifted, in order to avoid talking down to the child. Evans also urged counselors to tap into gifted students' creative problem-solving abilities to help them solve their own interpersonal and academic issues. In addition, she urged counselors to communicate acceptance and respect for verbal and nonverbal communication styles that may differ

from that of the counselor. Non-minority gifted and talented students might benefit form these strategies as well.

Identification Process

The topic of identification of children who are gifted and talented has been and continues to be one of the most controversial in gifted and talented education (Coleman, 2003; Culross, 1989). School districts and researchers alike express criticism of screening and selection procedures (Culross, 1989). Many of the identification procedures in place violate educational equity by excluding many poor and ethnically and racially diverse students (Lightfoot, 2002; Davis & Rimm, 1998; Richert, 1997). Davis and Rimm (1998) reported that "culturally different and economically disadvantaged African American, Hispanic American, Native American, and White children living in large urban centers, in poor rural areas, and on Indian reservations rarely are identified or described as gifted or talented" (p. 249). Indeed, it has been reported that African American children are underrepresented in gifted and talented programs, but overrepresented in special education programs for emotional and behavioral disabilities (Evans, 1997). There is reported to be a huge discrepancy between the number of Hispanic children in our school system nationwide, and their representation in gifted and talented programs (Davis & Rimm, 1998).

In addition, many question the pros and cons of identifying these children if no services are provided for them. Indeed, most states have to provide a balance between funds allotted to both identification and programming needs of the gifted and talented (Coleman, 2003). However, identification is a first critical step in ensuring that these students receive the services they need to thrive in school, and should never be viewed as

an end in itself (Coleman, 2003). Ideally, the information gathered during the identification process should be used to guide curriculum and instruction for each child.

Effective and reliable identification procedures are essential to the success of any program for the gifted and talented. They should not overlook students who are in need of services, nor identify students who are not (Coleman, 2003). Identification of the gifted and talented is not merely a matter of choosing students who obtain high grades. Patterson (1962) observed that "not all students who obtain high grades are talented, since factors other than ability affect grades" (p. 249). The consensus seems to be that a variety of objective and subjective measures are needed for a successful identification system. Best identification practices rely on multiple criteria which involve multiple types of information, multiple sources of information, and multiple time periods to ensure that students are not missed by identification procedures that occur only once in a student's education (e.g. at the end of second or third grade) (Coleman, 2003).

Suggested objective measures include standardized tests of achievement and aptitude that are valid, reliable, and free from bias. Such measures, however, though economical and relatively uninfluenced by teacher bias, have major drawbacks which have been noted in past decades. They make no provisions for underachievement, curriculum differences, reading problems, or group testing pressures (Martinson, 1975). These tests do not measure children's motivation or their current level of performance and make it seem that giftedness and talent are qualities that are unchangeable, similar to eye color or blood type (Culross, 1989). Arbitrary cut-off scores on these tests are often difficult to justify from a psychometric point of view and rarely take into account standard errors of measure (Culross, 1989). Most importantly, standardized tests are often biased against

children from culturally/linguistically diverse and/or economically disadvantaged families who have been consistently underrepresented in programs for the gifted (Coleman, 2003; Culross, 1989).

Suggested subjective measures include teacher nomination, parent nomination, peer nomination, and self-nomination (Reichert, 1997). Coleman (2003) advocated the use of student portfolios, performance-based assessments, and projects that involve collaboration with peers as supplements to standardized testing. Teacher nomination is one of the most widely used and recommended means for identifying the gifted and talented (Richert, 1998). Since teachers often have daily contact with their students, they are in a unique position to make judgments concerning their students' abilities. However, the evidence shows that unstructured teacher nominations are unreliable (Clark, 1997). As early as the 1950's, Pegnato (1958) reported that teachers often confuse conformity, industriousness, and personal appeal with ability, and they tend to be annoyed by students who exhibit independent behavior or who show marked curiosity. Highly articulate or highly motivated children are more likely to be selected as gifted and talented than quiet underachievers (Richert, 1998; Culross, 1989).

It has been reported that teacher observations can become more accurate through better acquainting them with the characteristics of the gifted and talented, and training them to rate and identify gifted and talented candidates (Richert, 1998). Lists of the characteristics of the gifted and talented are the basis for the development of checklists and scales to aid teachers in identifying talent. Lists of the general characteristics of intellectually gifted students abound, and tend to be similar in content. As was mentioned

earlier in this chapter, lists of the characteristics of students who are gifted and talented in specific subject areas also exist (NAGC, 2003).

Most school districts approach the identification of gifted and talented students by first formulating a general definition of giftedness and talent and establishing selection criteria to match it (Culross, 1989). Culross argued that this method is inadequate in that there are few well-defined constructs of giftedness, there is often a mismatch between the selected definitions and criterion measures, and often there is little relationship between the selection criteria and the programming that follows. Furthermore, in the field of gifted and talented education, there are no universally accepted criteria to determine giftedness and talent; these criteria vary as a function of the characteristics of the population, the policies of the school district in question, as well as its assessment procedures. Coleman (2003) supported the idea that the identification process be a way to search for clues of giftedness and talent in all students. In this manner, educators can learn to recognize indicators of potential and nurture this potential when it is found.

Coleman (2003) outlined the three phases in the identification process of gifted and talented students which included 1) general screening or student search whose purpose is to establish a pool of students who might qualify for special services, including students from diverse backgrounds and students with disabilities, 2) review of students for eligibility, keeping in mind that no one piece of evidence should exclude a student from services, but any single piece of evidence can be strong enough to reveal a need for services, and 3) services options match that may include differentiated experiences within a regular classroom setting, acceleration, pull-out and self-contained special classes, and

independent study. Placements should be monitored and reviewed periodically to ascertain whether the fit is still good for the student.

Implications for School Counselor Involvement

There is little in the professional literature that suggests the role school counselors can play in the identification of gifted and talented students. On the elementary school level, school counselors may be asked to serve on committees which screen and select students for gifted and talented programs. Moreover, they may have to field questions from counselees as well as parents as to how identification decisions were made.
It would seem that school counselors' expertise remains essential as gifted and talented children move into middle and high school, since they are directly involved in placing promising students into advanced-level classes and programs, whether or not students were identified as "gifted and talented" in elementary school. In addition, counselors are in a unique role to advocate for equitable identification procedures that remove barriers for gifted and talented racial and ethnic minority students (Lightfoot, 2002), as well as to reject the role of "gatekeeper" (Guidon, 2003).

School Counselors' Knowledge Concerning Gifted and Talented Students that Might Influence Counselor Involvement

General Knowledge

For purposes of this review, school counselor "general knowledge" concerning gifted and talented education and students referred to topics already discussed in this chapter that might influence their involvement with gifted and talented students, including the historical overview of gifted and talented education, as well as the emergence of counseling as a strong force in this area, the various definitions of giftedness and talent, the rationale for providing differentiated counseling services to gifted and talented students, the characteristics of gifted and talented children, as well as problems that may be encountered by them, various counseling intervention strategies that may be used with gifted and talented students, and the identification process with gifted and talented students.

No empirical studies were found that specifically discussed the degree of school counselors' knowledge concerning gifted and talented education and students. However, many voices in the professional literature urged counselors to be knowledgeable in these areas. In the 1980's, Walker (1982) observed that counselors already possessed the skills needed for working with the gifted and talented population, such as being knowledgeable about various assessments, working with parents, counseling with students, running groups, and consulting with other professionals, but that "knowledge in understanding the nature and needs of the gifted and talented will also need to be developed and extended to provide appropriate programs for the populations served" (p. 369). St. Clair (1989) stated

that because gifted and talented students are not a homogeneous group with identical needs, counselors needed access to "a large body of diverse literature" to enable them to "effectively provide their specialized services to individuals" (p. 101). Colangelo (2002) echoed this sentiment, stating that school counselors "will need to complement their clinical expertise with knowledge of giftedness so that they can be effective helpers" **(**pp. 7-8).

Several authors underscored the importance of the need for counselors of the gifted and talented to have specific knowledge about both the affective and cognitive needs of these students and how they differed from more typical students (Colangelo, 2002; Davis & Rimm, 1998; VanTassel-Baska, 1990). Knowledge of the characteristics of gifted and talented students was highlighted. Walker (1982) reported that "the counselor with knowledge of the characteristics of the gifted and talented student will be of invaluable service as programs and curricula are developed" (p. 364). An awareness of and sensitivity to the unique personal and educational issues and problems of gifted and talented students was also mentioned as an area in which school counselors should have expertise. Davis and Rimm (1998) observed that when others, including counselors, "comprehend the problems, then they can aid and support the troubled gifted students, helping them realize they are not abnormal, they are not weird, and they are not alone" (p. 390).

School counselors must also have knowledge of specific intervention strategies that work best with gifted and talented students. For example, in order for counselors to serve in the role of "information clearinghouse" for outside resources that could benefit these students, school counselors must be knowledgeable about appropriate role models and

mentors, as well as material resources such as museums, libraries, and universities (VanTassel-Baska, 1990).

There was an outcry among professionals in the literature of the last decade or so that counselors were in need of training concerning gifted and talented education and working with gifted and talented students. Parker (1988) argued for gifted education in-service workshops to train school counselors and psychologists in the differentiated needs of the gifted and talented. VanTassel-Baska (1990) observed that it is the responsibility of school districts to make certain that personnel are trained not only to recognize, but also to respond to the unique needs of their gifted and talented students. She deplored the fact that "counselors and psychologists receive no training on the emotional development of the gifted" (p. 19). Hanninen (1988), when discussing the qualifications of an effective teacher of the gifted and talented, reported that teachers who were unprepared to teach gifted and talented students might not only be ineffective with them, but might also contribute to the development of underachievement and negative attitudes on the part of these students. By extension, school counselors who lack knowledge about giftedness and talent may actually be a negative influence in the development of their gifted and talented counselees. More recently, Colangelo (2002) stated that there seemed to be more attention devoted to the needs of gifted and talented students by teacher training programs (although limited) than by school counselor training programs. He expressed "frustration" at the minimal attention paid by the counseling field to gifted and talented students, stating that "it is the very rare counselor training program that requires counselors to take a course on gifted students as a degree requirement," resulting in the

fact that “school counselors are grounded in counseling but not in theories of giftedness” (p. xiii).

Academic Issues

For purposes of this review, “academic issues” concerning gifted and talented students referred to the following topics: 1) identification process for gifted and talented, 2) academic choices and course selection, 3) remedial reading and study skill needs, 4) underachievement, and 5) behaviors of gifted and talented students in a heterogeneous classroom. No empirical studies were found that specifically discussed the degree of school counselors’ knowledge concerning the academic issues of gifted and talented students.

Identification Process

Since the 1980’s, the school counselor has been associated with the identification process of gifted and talented students. Walker (1982) stated that counselors must be able to identify children who are gifted and talented, and identified the area of dealing with data to provide for appraisal of individual students as a counselor competency not to be overlooked. VanTassel-Baska (1990) echoed these sentiments by proposing that counselors should serve as initiators in the identification process of these students. Not only should counselors be “knowledgeable” about different tests used for helping to determine if students are gifted and talented, but according to Deiulio (1984), they should be knowledgeable about the limitations of such tests. In addition, counselors should assume an advocacy role to help remove barriers to gifted and talented programs for ethnic and racial minority students (Lightfoot, 2002). In a discussion of the counselor’s

role and assessment, Guindon (2003) observed that "the counselor's role, therefore, can be to exclude or include students and to oppress or liberate them" (p. 348).

Academic Choices

School counselors, especially on the high school level, are directly involved with student scheduling, and help all students select courses that are commensurate with their ability level. Indeed, Coleman (1997) argued that counseling and guidance support for course selection was "one of the most critical aspects of a comprehensive array of services" (p. 48), especially for gifted and talented students from culturally diverse or economically disadvantaged backgrounds. In addition, counselors monitor students' academic progress in these classes. When counseling gifted and talented students, counselors "should be attuned to differences in the emotional as well as the intellectual systems of gifted students and work with students based on these differences" (VanTassel-Baska, 1990). Indeed, understanding the nature and significance of intellectual differences is a frequently occurring problem for gifted and talented students (Davis & Rimm, 1998).

It seems important for school counselors to have an understanding of how multipotentiality and perfectionism may impact the academic choices of gifted and talented students. Multipotentiality in regard to course selection refers to the fact that gifted and talented students often have more choices available to them than do other students (VanTassel-Baska, 1990). Sometimes the abundance of choices makes it hard for students to make up their minds. In addition, sometimes a reluctance to engage in risk-taking behaviors in intellectual contexts manifests itself in students turning away from rigorous and challenging honors or Advanced Placement classes. Students may shy

away from new challenges and experiences unless they can be guaranteed success in terms of a high grade, credit, or some kind of recognition (VanTassel-Baska, 1997). They may feel constantly pressured to maintain their position of mental leadership, and sometimes will refuse to try something rather than risk the chance of coming in second or third place (Brown, 1993). VanTassel-Baska (1997) observed that intellectual risk-taking is crucial to both the cognitive and affective development of the gifted and talented. She reasoned that these students need to discover that learning can occur from making mistakes and that their self-concept can endure despite their having "failed." Indeed, when engaging in creative thinking (e.g. looking for creative solutions to complex problems), people almost always make false starts as part of the process (Gallagher, 1990).

Once students have been scheduled into classes, Walker (1982) urged counselors to consult with teachers on expected standards for quality and quantity of work from the gifted and talented as a way to challenge these students to do their best. This kind of consulting should be based on knowledge of the abilities of gifted and talented students.

Remedial Reading and Study Skills Needs

It is a prevalent myth that gifted and talented students have no problems in the area of academics. As early as the 1970's, Zaffrann (1978) observed that they often need remedial work in several areas, including reading and study skills. These students may even get good grades and perform well on exams, yet not be able to read very well. For some, merely reading at grade level may be considered a remedial problem. The explanation as to why the gifted and talented may lack study skills is that often they skip learning good study routines when early academic tasks come so easily. The deficit in

study skills becomes more apparent as students progress through school and the work becomes more difficult (Brown, 1993).

Underachievement

Colangelo (2002) reported that the issue of underachievement is confusing because there is disagreement concerning both its definition and the best ways to intervene. He defined "underachievement" as "a discrepancy between assessed potential and actual performance" (p. 12). He believed that the discrepancy might occur between two standardized assessments, or between a standardized assessment and classroom performance. Davis and Rimm (1998) defined underachievement as "a discrepancy between students' high ability and mediocre or poor school performance" (p. 307).

The professional literature described the attempts of professionals to categorize underachievers. Whitmore (1980) described three patterns of underachieving students: the aggressive, the withdrawn, and the erratic and less predictable. Aggressive underachievers tended to act in disruptive and rebellious ways. Withdrawn underachievers tended to appear bored and uninvolved. The third category occurred when the underachiever fluctuated between aggressive and withdrawn behaviors.

Delisle (1992) distinguished between "underachiever" and "non-producer." In terms of counseling intervention, Deslisle stated that the counseling needs of the "non-producer" were minimal, and that this kind of underachievement could be easily reversed. On the other hand, the counseling needs of "underachievers" were extensive and might include a family counseling component.

Reis (1998) believed there were two kinds of underachievement: chronic and temporary (situational). The latter kind of underachievement often occurred in response

to an outside stressor or event, such as divorce of parents, loss of a friend, or problems with a teacher. Chronic underachievement was characterized by being long standing.

Colangelo (2002) observed that school counselors would find the discrepancy between scores not as significant as the interpersonal dynamics that come into play with underachievement. He conceptualized underachievement as a function of the relationship between the gifted and talented student and his/her teachers, parent(s), and sometimes peers. When some gifted and talented students underachieve, they are expressing a need for attention or a need to control some situation. Appropriate counseling interventions for the attention-seeker might be to ignore or minimize any underachieving behavior and only give attention when the child is achieving well. In this way, the child is rewarded by attention, and is more apt to choose achievement over underachievement. The kind of underachievement that stems from a need to control is more intractable. Often teachers and parents, when faced with this kind of underachievement, will attempt to force the student to do the task on hand. A vicious cycle of underachievement is set up, because the more the others push, the less the underachiever produces. School counselors can work to break this power struggle by encouraging teachers and parents to end the fight. Only then will the student feel able to perform because now it is his or her free choice. Group counseling with underachievers may also be effective because it gives them the freedom to explore their motivation and the consequences of their underachievement.

Rimm (1997) believed the determinants of underachievement were related to the variables of home, school, and/or peer environments. Davis and Rimm (1998) argued that perfectionistic tendencies might also be to blame, especially in cases of high school underachievement. They hypothesized that gifted and talented students might

procrastinate when doing difficult work, due to a fear of failure. These authors felt that underachievement was learned and could be unlearned.

Reis (1998) summarized the current research on underachievement as follows: 1) patterns of underachievement often get started in elementary school; 2) underachievement is often inconsistent, disappearing some years, and not equal in all classes; 3) there is a direct relationship between elementary school work that is too easy and underachievement that later occurs in middle or high school; 4) there is no clear evidence about the types of parental behaviors that cause underachievement; 5) peer groups seem key in the prevention or reversal of underachievement; 6) adolescents who are involved in extracurricular activities in and out of school seem less prone to underachievement in school; 7) bright achievers and underachievers exhibit many similar behaviors, and 8) some underachievers are produced as a direct result of an unmotivating curriculum.

Although underachievement afflicts non-gifted and talented children, it seems particularly important for school counselors working with gifted and talented students to be knowledgeable about the etiology and treatment of this phenomenon, due to the widespread nature of this problem for this population. No one can know for sure the exact percentages of gifted and talented underachievers, but estimates, historically, have run as high as over fifty percent (National Commission on Excellence in Education, 1983). When one also includes minority and disadvantaged students who “typically proceed invisibly through school until they drop out or, with luck, graduate” (Davis & Rimm, 1998, 248), the numbers of gifted and talented underachievers seems staggering.

Behaviors in a Heterogeneous Classroom

In order for school counselors to monitor the academic progress of their gifted and talented counselees, it seems important that they know how these students sometimes behave in a heterogeneous classroom. To avoid peer disapproval and fit in with their peers, they often hide their gifts and talents (Colangelo, 2002; Silverman, 1993; VanTassel, 1990). Because they often lack sufficient challenge in school work, they may become behavior problems by refusing to do routine, repetitious tasks (Davis & Rimm, 1998).

Sociałe motional Issues

For purposes of this review, "social-emotional issues" concerning gifted and talented students referred to the following topics: 1)social-emotional counseling needs and feelings, 2) impact of perfectionism on self-esteem, 3) impact of a heightened sensitivity, 4) developmental counseling approaches, 5) remedial counseling approaches, and 6) research on counseling needs.

Although no empirical studies were found that specifically discussed the degree of school counselors' knowledge concerning the social-emotional issues of gifted and talented students, the importance of counselor knowledge and understanding of the social and psychological effects of giftedness was underscored (Davis & Rimm, 1998; VanTassel-Baska, 1990; Walker, 1982). Without such an understanding, counselors will only be able to deal with a fraction of the issues confronting the gifted and talented (Colangelo, 2002). VanTassel-Baska (1997) stated that in order to plan systematic interventions to address the psycho-social needs of gifted and talented children, a clear recognition and understanding of how these children differ from the norm in the affective

domain is needed. Walker (1982) highlighted the consultative role counselors with knowledge of the characteristics of gifted and talented students might take in assisting teachers promote a positive self-concept in these students.

Social-emotional Counseling Needs

The professional literature made multiple references to the unique social-emotional needs of the gifted and talented, even as early as the 1960's and 1970's (Zaffrann, 1978). The affective needs of gifted and talented children have been classified as arising from either outside sources caused by a societal lack of understanding of giftedness and talent or from the innate characteristics of the gifted and talented (Webb, 1994; VanTassel-Baska, 1994). Webb (1994) identified external issues for gifted and talented students as taking place in the following arenas: 1) school culture and norms—should they adjust to school culture and norms even though, by definition, these children are "unusual" in terms of cognitive abilities when compared with their peers? 2) expectations of others—should they challenge or conform to the expectations of others? 3) peer relations—who really is a peer for such children since their advanced levels of ability may make them gravitate toward older children or make them fit the role of "loner?" 4) depression that may arise from educational misplacement or constant evaluation and criticism of one's performance, and 5) family relations that give rise to difficulties because of a lack of information on the part of parents about the nature of giftedness and talent, a lack of parenting skills, or the unresolved problems experienced by parents which stem from their own experiences with being gifted and talented.

Webb (1994) identified the following issues arising from the innate characteristics of the gifted and talented as follows: 1) uneven development in motor skills as compared to

cognitive functioning, particularly with preschool children, which can result in intense frustration and emotional outbursts, 2) peer relations difficulties when gifted and talented children attempt to organize people and things as preschoolers and in elementary school, giving rise to resentment in their peers, 3) excessive self-criticism for not measuring up to the idealistic images of what they might be, 4) perfectionism, 5) avoidance of risk-taking, 6) multipotentiality, and 7) gifted and talented children with disabilities which can cause intense frustration.

Davis and Rimm (1998), drawing from many sources, itemized the most frequently occurring problems of the gifted and talented, as follows:

1. Difficulty with social relationships; isolation from peers
2. Conformity pressures; hiding talents in order to be accepted by peers
3. Anxiety; depression
4. Difficulty in accepting criticism
5. Nonconformity and resistance to authority
6. Lack of sufficient challenge in schoolwork
7. Refusal to do routine, repetitious assignments
8. Excessive competitiveness
9. Poor study habits
10. Understanding the nature and significance of intellectual differences
11. Intellectual frustration in day-to-day and life situations
12. Difficulty in selecting a satisfying vocation from among a diversity of interests (multipotentiality)
13. Developing a satisfying philosophy of life (p. 390).

Davis and Rimm (1998) stated that the problem of feeling different and not fitting in with family and friends "is a virtual given" with highly gifted and talented children (p. 389). Many of these children feel uncertain about the meaning of "giftedness and talent" because it is both admired and ridiculed. In order for school counselors to conduct effective counseling regarding what it means to be gifted and talented, they need knowledge about this topic.

Zaffrann (1978) observed that feelings of isolation, boredom, nonconformity, and resentment were especially associated with problems of the gifted and talented. Others have conceptualized the affective needs of gifted and talented students as parallel to Maslow's hierarchy of needs for all students, but more intensive than for others because of the greater sensitivity, awareness, and intensity of experience of the gifted and talented (VanTassel-Baska, 1990).

VanTassel-Baska (1990) observed that it was difficult for young people to be gifted and talented, as indicated by the wide assortment of potential problems. She stated that "the gifted child pays a heavy toll for society's confusion about the nature of giftedness" (p. 16). She added that the gifted and talented can be perceived as "psychological misfits" because they must be part of a society that values conformity of behavior.

The issue of whether gifted and talented are, indeed, "psychological misfits" has been studied by Maureen Neihart (1999), who conducted an exhaustive review of the empirical literature concerning the psychological well-being of the gifted and talented. She found evidence to support two opposing views: that giftedness and talent are characterized by enhanced resiliency, but also by increased vulnerability. Historically, each viewpoint has had its periods of favor. In the late 1800's, giftedness and talent were

associated with maladjustment. Terman's longitudinal studies supported the position that people of high ability were less likely to have adjustment problems than average. With the highly publicized suicide of a gifted and talented high school student in 1981 came the conclusion that giftedness and talent did not guarantee superior psychological functioning. Research during this time focused on whether the gifted and talented were more prone to suicide, delinquency, anxiety, and depression. Indeed, studies from this time suggested that eminent creative adults, including writers and artists, were prone to depression, manic-depressive illness, and suicide. It was hypothesized that certain types of thinking processes, disturbances of mood, and tolerance for irrationality were characteristics of both highly creative production and problematic mental health functioning. James Delisle's seminal review, "Death with honors: suicide among gifted adolescents," upheld the position that gifted and talented adolescents were not immune to depression, and that there has been an increase in their suicidal behaviors. He blamed such factors as perfectionism, societal expectations, uneven development in social, emotional, or physical growth as compared to intellectual growth that may result in social ostracism, and frustration at understanding adult situations and world events but feeling powerless to change the status quo. In the 1990's, debate continued concerning the psychological status of the gifted and talented.

Neihart (1999) reported that gifted and talented children who are achieving and participating in special educational programs for the gifted and talented seem to be as well adjusted or even more so than their non-gifted and talented peers. She reconciled the two conflicting views regarding the psychological adjustment of gifted and talented children by concluding that the impact of giftedness and talent on children, adolescents,

and adults was determined by three factors that interact synergistically: the type of giftedness and talent (e.g. creative, artistic, verbal, or mathematical), the educational fit (placement of students into appropriately challenging educational experiences), and one's personal characteristics.

Impact of Perfectionism on Self-esteem

Although there is little quantitative evidence to support the assertion that gifted and talented students tend to be more perfectionistic than their non-gifted and talented peers, many professionals feel this claim is true (Parker & Adkins, 1995). The double-edged nature of perfectionism has been noted, with its potential to be linked positively with achievement, but its potential to be linked negatively with maladjustment. Some gifted and talented children make themselves sick trying to maintain "A's," and may even cheat (Davis & Rimm, 1998). They tend to expect more of themselves than is reasonable (VanTassel-Baska, 1997). A typical scenario in the development of perfectionistic tendencies begins in the elementary classroom, where the gifted and talented youngster easily achieves high grades and glowing praise from parents and teachers. These children internalize the praise and become dependent on the continuation of positive reinforcement for their self-concept. They also feel pressured to achieve at a level that matches the positive feedback. As work gets harder in middle school and high school, these children find it more difficult to achieve at as high a level as before. They feel that to do less than perfect is to fail, and feel guilty and anxious in their attempts to achieve (Davis & Rimm, 1998; Rimm, 1997). These students would benefit from someone helping them understand the difference between perfection and striving toward excellence (VanTassel-Baska, 1997).

Impact of a Heightened Sensitivity

Sensitivity, like perfectionism, is double-edged in that the very characteristic that makes the gifted and talented exceptional may also lead to problems in adjustment. For example, the ability to anticipate the future is a manifestation of giftedness and talent, but may also bring with it the potential of being depressed by what is seen (Gallagher, 1990). The heightened sensitivity of these children is the basis for such esteemed traits as compassion, a deeper understanding of moral issues and justice, and creativity. However, a heightened sensitivity may lead to an increased amount of inner turmoil as well as censure from a society that does not encourage boys to be overly sensitive (VanTassel-Baska, 1990). Gifted and talented students exhibiting the trait of hypersensitivity would benefit from someone who could help them understand and honor this characteristic (VanTassel-Baska, 1990). Once again, a school counselor knowledgeable about the nature of hypersensitivity would be of great assistance to these students.

Developmental Counseling Approaches

Colangelo (2002) called for school counselors to establish a developmentally appropriate environment for the educational growth of gifted and talented students. This approach "is predicated on knowledge of both affective and cognitive needs of gifted youngsters" (p. 15).

Remedial Counseling Approaches

Colangelo (2002) also recognized that at times school counselors might be involved in "remedial" counseling for the gifted and talented, with its focus on problem solving and crisis intervention. Knowledge of the issues of the gifted and talented would be

helpful to conduct such interventions, which might involve staffings, referrals, and individual counseling or group counseling.

Research on Counseling Needs

The importance of school counselors keeping abreast of the latest research and practices concerning the counseling needs of gifted and talented students was mentioned by Colangelo (2002) in his list of requirements for establishing a developmental school counseling program. The latest research concerning these counseling needs includes a new awareness of the needs of students with "dual exceptionalities" such as students who, in addition to being gifted and talented, also have disabilities that fall in the areas of learning, developmental, and social-emotional disabilities. Gifted and talented children may also have attention deficit/hyperactivity disorder (Colangelo, 2002). VanTassel-Baska (1990) highlighted the need of counselors of the gifted and talented to be sensitive to the value conflicts of students from low socioeconomic backgrounds who may require special support in clarifying and working toward their goals.

Career Development

For purposes of this review, "career development" concerning gifted and talented students referred to the following topics: 1) unique career development needs and the impact of multipotentiality, 2) the impact of perfectionism on career choices, and 3) the impact of others' expectations on career choices. Although no empirical studies were reported that specifically discussed the degree of school counselors' knowledge concerning the career development of the gifted and talented, Kerr (1986) observed that

many of these students did not receive counselor attention to their career development needs because counselors "do not know how to counsel them" (p. 602).

Unique Needs and the Impact of Multipotentiality

There is a myth that because of the high abilities of gifted and talented students, their future is assured and they do not require any kind of career counseling (Rysiew, Shore, & Leeb, 1999). Practitioners and theorists who have put this myth to rest consider career education for the gifted and talented to be crucial, yet they also feel this need is not being satisfactorily met (Rysiew, Shore & Leeb, 1999). Indeed, many gifted and talented students encounter great difficulty in career development due to the need to make commitments that may require long-term schooling (graduate and professional), and may delay their ability to support themselves, become independent, and start families. These career choices may be hard to change because of the time already put into them, even if students have serious doubts about them (Colangelo, 2002).

The career development for gifted and talented students can be particularly difficult due to their numerous and diverse abilities and interests (multipotentiality) (Davis & Rimm, 1998; Kerr, 1986; Zaffrann, 1978). These students could succeed at a high level in any one of a number of fields, and find it hard to narrow their choices to one career. Colangelo (2002) observed that "ability and ambition do not always translate into planned or purposeful action" (p. 5). Rysiew, Shore, and Leeb (1999) stated that "multipotentialed young people may anguish over an abundance of choices available to them during career planning unless appropriate interventions are available" (p. 423). These students may postpone choice of a career direction, change course frequently, or make arbitrary decisions. Some are "early emergers"—individuals with specific gifts and

talents evident at an early age whose interests are extremely narrow—which can also come with its share of problems (Kerr, 1986).

For many high ability children, vocational choice is an existential dilemma, often accompanied by an identity crisis (Rysiew, Shore, & Leeb, 1999). Careers are viewed as more than just a way to earn money; they are considered an avenue for self-expression in which they can implement a philosophy of life and utilize many of their skills, gifts and talents.

In order to help gifted and talented students narrow down career options, Zaffrann (1978) urged school counselors to invest more energy and time with these students. Davis and Rimm (1998) stated that to simply tell these students "Gee whiz with your brains you can do whatever you want" is no solution to the problem. Rysiew, Shore, and Leeb (1999) recommended the following interventions that counselors could undertake to help multipotentialed gifted and talented students with career decisions: 1) introducing career education early in school, but without pressure for early career choice, 2) encouraging and facilitating contacts with other multipotentialed students, as well as adults who can serve as role models and mentors, 3) conceptualizing career decision making as an on-going endeavor, as well as validating late blooming, 4) reminding students that they can consider parallel or sequential multiple careers, and 5) encouraging students to channel some of their abilities and interests into leisure activities apart form one's career. In addition to the ideas just mentioned, Silverman (1993) suggested creating new or unusual careers as another career development intervention for gifted and talented students.

Impact of Perfectionism on Choices

Perfectionism can stem from multipotentiality, in that gifted and talented students may be in search of the "perfect" or ideal career—one that does not exist (Colangelo, 2002). Because of fear of failing to live up to their potential, these students may avoid going out into the "real world," but rather choose the comfort of the role of student, where external recognition is easily attained and in which they are almost always guaranteed to succeed (Rysiew, Shore, & Leeb, 1999).

Impact of Others' Expectations on Choices

In addition to multipotentiality and perfectionism, the career development of gifted and talented students is also complicated by the expectation of others, such as parents, relatives, and educators, who may urge these students to make decisions based on status and high earning power (Colangelo, 2002). Adults often place more value on certain careers, such as doctor, lawyer, engineer, and physicist, whereas they place less value on such careers as public school teacher, social worker, school counselor, and nurse (Colangelo, 2002). On the other hand, perhaps more true in the past, sometimes parents choose to ignore or do not believe in the high abilities of their gifted and talented children, and expect them to carry on the family business or continue working on the farm rather than pursuing college or specialized training (Zaffrann, 1978). School counselors need to anticipate the expectations of others and help their gifted and talented counselees make the best career decisions possible.

School Counselors' Perceptions Concerning Gifted and Talented Students that Might Influence Counselors' Involvement

As stated earlier in this literature review, there was an outcry among professionals in the literature that school counselors were in need of training concerning working with gifted and talented students. Although no empirical studies were cited, it was suggested that more training would result in more counselor knowledge concerning the needs of the gifted and talented, and that more counselor knowledge would result in better counseling services provided to these students (Colangelo, 2002; Davis & Rimm, 1998; Walker, 1982). The literature included very little evidence concerning the relationship between school counselor knowledge and perceptions of gifted and talented children, or even school counselors' perceptions by themselves concerning these issues. Some of the literature regarding the perceptions of teachers, as well as others, toward the gifted and talented seemed to have relevance to the present discussion.

There have been a handful of empirical studies examining attitudes of educators (mostly teachers) toward the gifted and talented, although there appears to be no widespread acceptance of the desirability of meeting the cognitive learning needs of gifted and talented students. Indeed, Crammond and Martin (1987) reported negative teacher attitudes toward gifted and talented students, and Bransky (1987) reported negative teacher attitudes toward gifted and talented programs. However, most of these studies have reported a positive relationship between training and experience with the gifted and talented and attitudes. Copenhaver and McIntyre (1992), studying teachers' perceptions of the characteristics of gifted and talented students, concluded that the number of courses or workshops on gifted and talented education taken by teachers was

related to their perceptions. Specifically, the more courses taken, the more positive the perceptions. In addition, a statistically significant difference (p=.001) was reported between the perceptions of teachers with no experience teaching in gifted and talented programs, and those with one or two years of experience. (Insignificant differences were reported between the perceptions of teachers with one or two years of experience teaching in gifted and talented programs, and those with more experience.) Furthermore, it was found that the distribution of teacher responses at the elementary level differed from those of teachers at the secondary level. Elementary school teachers were more likely to report more negative characteristics of gifted and talented students (e.g. bored, rebellious, inattentive, and lazy) than secondary school teachers.

Using the Wiener Attitude Scale (WAS), an instrument that measures teacher attitudes toward the gifted and talented, two hundred teachers from four different school systems in California were surveyed. A highly significant relationship between attitudes toward gifted and talented children and scholastic aptitude of the teachers was reported (Wiener & O'Shea, 1963). A follow up study at the university level also found a significant relationship (p=.01) between the educational degree held by teachers and their attitude toward the gifted and talented, although no relationship was reported between age, sex, income, number of years of teaching, or grade level and the teachers' attitude. Teachers with master's degrees reported more favorable attitudes than those with only bachelor's degrees. In addition, statistically significant differences were found between those teachers who had experience teaching classes for the gifted and talented and those who had not. The teachers with this experience tended to be more favorable than those without this experience (Wiener & O'Shea, 1963). Although this study was conducted at

the university level, it has implications for earlier grades in that the university faculty surveyed all had responsibility for teacher education and could directly influence the attitudes of new teachers.

Mills and Berry (1979) investigated the attitudes of 857 policy makers toward programs for the gifted and talented. They found that teachers and parents of gifted and talented children reported more favorable attitudes toward gifted and talented children and their programs (according to the WAS scale) than did teachers of non-gifted and talented classes, educational administrators, community leaders, and the public.

Another study that involved the effects of familiarity with the gifted and talented on attitudes assessed gifted and talented adolescents' perceptions of how others viewed them. The gifted and talented adolescents reported that negative stereotypes seemed to come from those who knew them the least—their classmates in general. The more people were removed from personal knowledge of gifted and talented children, the more negative their attitudes toward them (Monaster, Chan, Walt, & Wiehe, 1994).

The possible connection between perceptions and delivery of educational services to the gifted and talented has received some attention in the professional literature. Bishop (1975) analyzed the characteristics of high school teachers whom gifted and talented, high achieving students identified as "successful." It was found that there were unique teacher attitudes that distinguished between "successful" teachers and those not so designated. "Successful" teachers more often reported that they preferred to teach a class of exceptionally intelligent students rather than average students, and supported giving special educational attention to gifted and talented students.

The relationship between perceptions concerning gifted and talented education and delivery of services was underscored in the United States Office of Education report on education of the gifted and talented that concluded that identification of the gifted and talented was often hampered not only by costs but by "apathy and even hostility among teachers, administrators, guidance counselors, and psychologists" (Marland, 1971, p. 3). The situation had not appeared to have changed over twenty years later. Misconceptions about the needs of the gifted and talented were cited as a key reason for the decline in the number and scope of some local programs for gifted and talented students (Purcell, 1995).

In a rare study that examined the attitudes of school counselors toward gifted and talented children, Deiulio (1984) surveyed fifty-eight pupil personnel workers (guidance counselors and school psychologists) in three rural counties in New York using the WAS. Surprisingly, scores of respondents from districts with gifted and talented programs were significantly more negative than those from districts with no programs at all. Specifically, participants responded in a more negative manner to statements pertaining to "selection," "grouping," and "evaluation factors" as compared to statements categorized as "gifted children's behavior," "the effect of educational practices," and "the role of teachers and administrators." For example, respondents tended to believe that acceleration was a poor practice for the gifted and talented at the elementary level because of possible social and emotional problems. They also believed that "gifted children should remain in heterogeneous classes because they will spend their lives with all types of people" (p. 168). Deiulio hypothesized that these unexpected results (the reverse of what Wiener had found in California) might have been due to the fact that gifted and talented programs

were relatively new to this particular area of New York, and that the pupil personnel workers might not have been involved with these programs beyond the screening and identification phases, thereby not witnessing from first hand the benefits of special programming. In addition, psychologists and counselors tended to receive referrals concerning students experiencing academic and/or emotional difficulties, and might have been less aware of the successes of the program. Another possibility for these results might be that the WAS appears to have been designed to measure the attitudes of teachers (as opposed to school counselors); no indication is given that the scale was adjusted for counselors.

Deiulio was concerned about the implications of school counselors' negative attitudes on gifted and talented programs. She believed that school counselors were crucial in the lives of gifted and talented students, both through their counseling function as well as their consulting function, with the "subtle nature of the influence they may exert" on gifted and talented program development and maintenance" (p. 168). She strongly recommended that "inservice efforts for guidance counselors and school psychologists in the future should address those attitudinal areas which reflect negative concepts or a lack of understanding of appropriate selection procedures and programming options for gifted children" (p. 168). This statement appears to suggest that school counselor knowledge of gifted education might influence school counselor perceptions.

School Counselor Role

For purposes of this review, school counselor perceptions of their role concerning gifted and talented students referred to the following topics: 1) degree of assistance required from school counselors, 2) likelihood of requiring outside referral, 3) degree of

need for differentiated counseling services, 4) degree of need for school counselors with knowledge about gifted and talented issues, 5) degree of enjoyment in counseling gifted and talented students, and 6) "fairness" of providing for the needs of gifted and talented students. The literature provided very little information pertaining to school counselors' perceptions of these topics, though it suggested that they were worthy of further exploration.

Assistance from School Counselors

Earlier in this chapter, reference was made to the perception of some educators that gifted and talented students did not require any additional help to get through school because their high abilities enabled them to surmount and rise above barriers and limitations of the environment (VanTassel-Baska, 1990; Culross, 1982). This perception mirrors the myth that the gifted and talented will rise to the top on their own. Davis and Rimm (1998) decried the generally held view that the gifted and talented did not really require additional help. They reported "when the going gets tough, gifted programs, perceived by some as luxuries for 'students who don't need help,' are among the first to go" (p. xii). This observation echoed that of Parker (1988), who stated that it seemed as if provisions for gifted and talented were an idealistic luxury, only done when time permitted.

Although the literature did not specifically address the perceptions of school counselors concerning the degree of assistance required of them by the gifted and talented, it was observed that gifted and talented students get less than their share of time and attention from school counselors unless they are already in trouble (Colangelo, 2002).

Likelihood of Requiring Outside Referral

Although the literature did not specifically address the perceptions of school counselors concerning the likelihood of their gifted and talented students requiring referrals to outside agencies and therapists, VanTassel-Baska (1990) stated that many educators questioned the need for special in-school counseling services for the gifted and talented. These educators based their position on the belief that such services should be provided outside school through private sources. VanTassel-Baska argued that schools must take responsibility for providing comprehensive education and guidance programs for all of their students, including the gifted and talented. To do anything less would discriminate against those children whose parents cannot afford to seek outside counseling.

Differentiated Counseling Services

Although the literature provided much evidence in support of gifted and talented students requiring differentiated counseling and guidance due to their atypical developmental needs (Silverman, 1990; VanTassel-Baska, 1990; Parker, 1988; Landrum, 1987), VanTassel-Baska (1990) reported that myths and prejudices continued to influence the attitudes of teachers, administrators, and parents toward differentiated educational programs for the gifted and talented. Moreover, there was little information concerning the perceptions of school counselors concerning the need for differentiated counseling services. Indeed, in a rare discussion of attitudes of school counselors toward gifted and talented education, “apathy” was one of the words used to describe some of their attitudes (Marland, 1971, p. B6).

Need for School Counselors with Knowledge about Gifted and Talented Issues

Despite the preponderance of literature in support of school counselors gaining knowledge about gifted and talented issues, as well as the attention, albeit limited, of teacher training programs devoted to these issues, there has been "minimal attention" given to gifted and talented students by the counselor education field (Colangelo, 2002). Counselor training programs, including school counselor programs, have not responded to the research on the counseling needs of the gifted and talented (Colangelo, 2002).

Enjoyment in Counseling the Gifted and Talented

Not only did the literature make reference to the fact that not all counselors have positive attitudes toward the gifted and talented (Deiulio, 1984), but there was evidence that some counselors demonstrate "hostility" (Marland, 1971). VanTassel-Baska (1990) commented that it was unrealistic to expect school counselors to make the counseling of gifted and talented students a major focus of their work, and cited counselor case loads of 300-500 students as the basis for her claim. Under such circumstances, she suggested that school counselors might perceive working with the gifted and talented as simply an "added responsibility" (p. 42).

"Fairness" of Providing for the Gifted and Talented

The professional literature reported that opponents of differentiated programs for the gifted and talented argued that such programs created an "elitist" society and were contrary to our democratic way of life (Parker, 1988). VanTassel-Baska (1990) cited this issue of fairness as one of the myths and prejudices that may affect the attitudes of teachers, administrators, and parents toward gifted and talented programs. Although she

did not mention school counselors by name, it can be assumed that some of them may also perceive programs for the gifted and talented as "unfair." On the other hand, Davis and Rimm (1998) strongly argued that it was unfair *not* to help gifted and talented students develop as far as their gifts and talents and motivation would permit. This position is in keeping with ASCA's code of ethics, which states that "the school counselor is concerned with the total needs of the student (educational, vocational, personal, and social) and encourages the maximum growth and development of each counselee" (ASCA, 1992, p. 2.)

Academic Issues

For purposes of this review, school counselors' perceptions of academic issues of gifted and talented students referred to the following topics: 1) likelihood of requiring academic assistance, 2) degree of intellectual threat to teachers, 3) degree of argumentativeness, 4) level of tolerance for ambiguity, and 5) degree to which gifted and talented students excel in all areas of their life. As was the case with school counselors' perceptions of the school counselor's role with the gifted and talented, little was found in the literature discussing school counselors' perceptions of the academic issues of the gifted and talented.

Likelihood of Requiring Academic Assistance

As stated earlier, the literature reported the widespread reaction that gifted and talented students would make it on their own because they were so bright (Davis & Rimm, 1998). Although there was no evidence of school counselors' perceptions pertaining to the likelihood of the gifted and talented requiring academic assistance,

VanTassel-Baska (1990) observed that one of the myths and prejudices that might affect the attitudes of teachers, administrators, and parents was that "we should be satisfied if they perform adequately for their age and in the appropriate grade for their age" (p. 62). It is possible that some school counselors feel this way, too.

Degree of Intellectual Threat to Teachers

The professional literature provided evidence that gifted and talented students who used an extensive vocabulary might be perceived by teachers as an intellectual threat or as "showing off" (Copenhaver & McIntyre, 1992). These authors argued that those teachers who had taken course work covering the characteristics of the gifted and talented would recognize that having an extensive vocabulary was a trait of giftedness and talent rather than a manifestation of a negative characteristic. In this way, teachers would feel less threatened and would be more likely to act in a more accepting manner with these students. However, the literature offered no direct evidence concerning school counselors' perceptions regarding the degree to which gifted and talented students were perceived as intellectual threats to teachers.

Argumentativeness

No studies cited school counselors' perceptions of the degree of argumentativeness of gifted and talented students, though it was reported that they were sometimes "ready to argue at the drop of a hat" (Brown, 1993).

Tolerance for Ambiguity

No studies cited school counselors' perceptions of the level of tolerance for ambiguity of gifted and talented students, though it was reported that they had a low

tolerance for ambiguity and were uncomfortable delaying decisions for more information (Brown, 1993).

Degree to Which Gifted and Talented Students Excel in All Areas of Life

No studies cited school counselors' perceptions of the degree to which gifted and talented students excelled in all areas of their life. VanTassel-Baska (1990) reported that teachers sometimes expected children to be gifted in everything, and might be insensitive to the areas of weakness that might be exhibited by these children.

Social-emotional Issues of Gifted and Talented Students

For purposes of this review, school counselors' perceptions of the social-emotional issues of gifted and talented students referred to the following topics: 1) likelihood of being psychologically at risk, 2) degree of social adjustment and acceptance by others, and 3) feelings of gifted and talented students and degree of sensitivity. There were no empirical studies found that discussed school counselors' perceptions pertaining to the social-emotional issues of gifted and talented students, although there were many discussions concerning the social-emotional issues of these students. Colangelo (2002) reported that many educators recognize that gifted and talented children have complex social-emotional needs, although he did not specifically mention school counselors. Despite these pressing needs, it was reported that the counseling needs of gifted and talented students were perceived by educators to be mostly in the area of academic planning rather than social-emotional assistance (VanTassel-Baska, 1990). Most telling, however, was VanTassel-Baska's conclusion that "counselors and psychologists receive

no training on the emotional development of the gifted, *nor do they perceive the need for such training*" (p. 19).

Likelihood of Being Psychologically at Risk

No empirical evidence was found in the professional literature concerning the perceptions of school counselors as to the likelihood of gifted and talented students being psychologically at risk. As was mentioned earlier in this review, there has been extensive study as to whether these students are psychologically at risk (Neihart, 1999). VanTassel-Baska (1990) stated that one of the myths and prejudices that might affect the attitudes of teachers, administrators, and parents was that the gifted and talented "ripen early intellectually and rot early emotionally" (p. 62). In addition, VanTassel-Baska observed that some might believe the myth that the gifted and talented are "eccentric and kind of peculiar" (p. 62).

Public perception of the emotional status of gifted and talented children has shifted many times over the last half of the twentieth century, followed by similar shifts by professional educators (Gallagher, 1990). Gallagher (1990) explained that the view that links giftedness and talent with insanity has been so easily accepted because it fits the concept of "equity." According to some people, it is "unfair" that one person should have many gifted and talents and others should have a multitude of deficits. It is only "fair" that the gifted and talented should have some kinds of disabilities to balance their high abilities.

It is now thought that most gifted and talented students tend to be well-adjusted, but a sizable minority are psychologically at risk (Colangelo, 2002; Neihart, 1999; Brown, 1993). Although some researchers found evidence that there seemed to be a pattern of

higher suicidal tendencies in gifted and talented adolescents than in the average population (Brown, 1993), others reported that gifted and talented students do not appear to be prone to suicide in any greater numbers than their non-gifted peers (Colangelo, 2002).

Social Adjustment and Acceptance by Others

Although the professional literature made reference to the association of giftedness and talent with poor social adjustment for some students, no empirical studies were found concerning school counselors' perceptions of the degree of social adjustment and the acceptance by others of gifted and talented children.

In a study that investigated student, parent, and teacher attitudes toward gifted and talented students in a consolidated junior high school in rural Iowa, Colangelo and Kelly (1983) were concerned that students identified as gifted and talented and placed in a special program might be rejected by their peers. These researchers found no evidence to support such a concern, though the gifted and talented students perceived non-gifted peers and teachers as holding negative views of them.

Feelings and Degree of Sensitivity

No empirical studies were found pertaining to school counselors' perceptions of the feelings of gifted and talented students and their degree of sensitivity. However, in a study of teachers' perceptions of the gifted and talented, Copenhaver and McIntyre (1992) discovered that some teachers perceived these students to be bored, rebellious, inattentive, and lazy. Colangelo (2002) reported that depression, anxiety, and isolation were common feelings of these students.

VanTassel-Baska (1990) addressed the need to nurture the heightened sensitivity of gifted and talented students, despite this quality not being highly valued by society. Failure to help student understand their sensitivity might result in transforming emotional sensitivity into emotional disturbance—"a risk none of us can afford to take" (p. 27).

School Counselors' Involvement with Gifted and Talented Students

A myriad of prescribed activities and specific role behaviors pertaining to school counselors' involvement with gifted and talented students were found in the professional literature (See Table 2). As early as the 1980's, counselors were considered "vital persons" in implementing appropriate education for this group of students (Walker, 1982, p. 359).

Perhaps the most compelling description of prescribed school counselor involvement with gifted and talented students was found in the position statement, "The Professional School Counselor and Gifted and Talented Student Programs," developed by the American School Counselor Association (ASCA, 2001), which identified the professional school counselor as an "integral" part of the educational team working with these students. This position statement, adopted in 1988 and revised three times, stated that the school counselor "assists in providing technical assistance and an organized support system within the developmental comprehensive school counseling program for gifted and talented students to meet their extensive and diverse needs as well as the needs of all students." It is important to note that this organization supports a developmental, differentiated counseling approach for the gifted and talented.

Table 2

The Professional School Counselors' Involvement With Gifted and Talented Students

AUTHOR(S)	PRESCRIBED ACTIVITY	SPECIFIC ROLE BEHAVIORS
Colangelo (2002); Colangelo & Davis (1997)	Counseling (ind. & group)	Provides developmental counseling based on knowledge of the affective and cognitive needs of the gifted
	Consultation	Provides developmental counseling based on family and teacher consultations
	Professional development	Keeps current with the latest research and best practices on counseling the gifted
	Collaboration	Establishes an environment in school that is conducive to the full development (cognitive and affective) growth of the gifted
		Fosters a partnership between parents and schools
ASCA Position Statement: Gifted Programs (2001)	Identification	Assists in the identification of gifted students by using multiple criteria
	Advocacy	Advocates for the inclusion of activities that effectively address the the academic, personal/social and career development needs of the gifted
	Counseling	
	Professional development	Promotes understanding and awareness of special issues associated with the gifted such as perfectionism and underachievement
	Consultation	
	Collaboration	Provides individual and group counseling as warranted
		Recommends resources for teachers and parents of the gifted
		Engages in professional development activities through which knowledge and skills in the area of programming for the needs of the gifted are regularly upgraded
		Works in collaboration with other school personnel to maximize opportunities for the gifted
Davis & Rimm (1998)	Counseling (ind. & group)	Helps students understand what it means to be gifted
	Collaboration	Works with teachers, principals, and other staff to foster a better school climate for the gifted
	Information clearinghouse	Assists gifted students in locating appropriate resources
	Group guidance	Conducts classroom activities related to issues of being gifted
	Consultation	Consults with parents and teachers
	Evaluation	Evaluates strengths and weakness of the counseling program

Table 2 (continued)

The Professional School Counselors' Involvement With Gifted and Talented Students

AUTHOR(S)	PRESCRIBED ACTIVITY	SPECIFIC ROLE BEHAVIORS
VanTassel-Baska (1997); VanTassel-Baska (1990)	Counseling (ind. & group)	Provides psychosocial counseling aimed at preserving affective differences
	Acad. program planning	Presents atypical career planning models that address multipotentiality of the gifted
	Group guidance	Matches academic program to gifted student's needs
	Information clearinghouse	Conducts seminars for the gifted on selective topics
		Suggest human resources (role models and mentors) and material resources
	Consultation	libraries, universities) that could benefit the gifted
	Advocacy	Establishes in-service seminars concerning the cognitive and affective needs of the gifted for teachers of the gifted
		Conducts parent education workshops
		Advocates for the gifted by assisting with their individual progress through appropriate school experiences
	Collaboration	Teams with parents, psychologists, teachers, and other school personnel; refers to outside professionals as warranted
	Identification	Serves as initiators in the identification process of the gifted
Landrum (1987)	Counseling (ind. & group)	Focuses on the academic, personal-social, and career development of the gifted
	Collaboration	Maintains contact with parents as needed
Deiulio (1984)	Consultation	Provides preventative and informational consultation
	Advocacy	Helps school administration and staff understand unique needs of GT
	Evaluation	Assists in evaluation activities for school programs and follow ups with graduates
Walker (1982)	Identification	Is able to identify gifted children

Table 2 (continued)

The Professional School Counselors' Involvement With Gifted and Talented Students

AUTHOR(S)	PRESCRIBED ACTIVITY	SPECIFIC ROLE BEHAVIORS
	Advocacy	Develops a guidance program that is unique for the gifted
	Consultation	Collects information on the characteristics of gifted students and consults with classroom teachers; provides in-service training for teachers so they may feel less threatened or hostile to the gifted
	Counseling (ind. & group)	Assists the gifted in understanding their unique needs and the ramifications of being gifted
	Group guidance	Assists the gifted in study skills, reading, and communication skills
	Collaboration	Works with the parents of the gifted on such issues as family expectancy
	Coordination	Identifies resources in the community to enhance the development of the gifted
	Evaluation and research	Monitors the academic and affective progress of students in the gifted program
	Academic program planning	Places students into classes with other gifted students
	Assessment	Assesses reading habits
Zaffrann (1978)	Counseling	Addresses educational, career, and personal concerns of the gifted
	Consultation	Consults with administrators and parents concerning the needs of the gifted
	Advocacy	Helps to convince administrators of the need for special programs for the gifted
	Research and evaluation	Conducts needs assessments and develops measurable objectives to examine gifted programs

The ASCA position statement identified the role of the professional school counselor with the gifted and talented as follows, basing most of their "definition" of giftedness and talent on a broad interpretation of the Federal definition:

1. Assisting in the identification of gifted and talented students through the use of a multiple criterion system utilized in their school district, which may include:
    - Intellectual ability
    - Academic performance
    - Visual and performing arts ability
    - Practical arts ability
    - Creative thinking ability
    - Leadership potential
    - Parent, teacher, peer nomination
    - Expert evaluation
2. Advocating for the inclusion of activities that effectively address the personal/social, and career development needs, in addition to the academic needs of identified gifted and talented students
3. Assisting in promoting understanding and awareness of the special issues that may affect gifted and talented students including:
    - Underachievement
    - Perfectionism
    - Depression
    - Dropping out

- Delinquency
- Difficulty in peer relationships
- Career development
- Meeting expectations
- Goal setting
- Questioning others' values

4. Providing individual and group counseling for gifted and talented students, as warranted
5. Recommending material and resources for gifted and talented programs and teachers and parents of gifted and talented students
6. Engaging in professional development activities through which knowledge and skills in the area of programming for the needs of the gifted and talented are regularly upgraded

Based on the ASCA position statement and the review of the literature pertaining to prescribed roles of the school counselor vis-a-vis the gifted and talented, the following eight school counselor roles were identified: 1) identification, 2) advocacy, 3) consultation, 4) collaboration, 5) information clearinghouse, 6) counseling, both individual and group, 7) professional development, and 8) evaluation and research.

Identification

School counselors should serve as "initiators" in the identification process of gifted and talented students, whether for inclusion in special programs within the school or for special attention from others in the educational community (VanTassel-Baska, 1990, p.4). Others see the school counselor "assisting" in the identification process (ASCA, 2001).

As such, counselors might be involved in collecting information concerning student achievement, abilities, aptitudes, interests, goals, needs, and other characteristics of the student. They might solicit teacher input, parental input, and input from students themselves as part of the process. In addition, they must advocate for equitable identification practices that help remove barriers for ethnic and racial minorities underrepresented in programs for the gifted and talented (Guidon, 2003; Lightfoot, 2002).

Advocacy

As advocates for all their counselees, school counselors must be sure to act as advocates for their gifted and talented students within the educational institution, helping negotiate and facilitate their individual progress through school experiences that will help them fulfill their potential (VanTassel-Baska, 1990). While counselors should not be the only advocates for these students, they are key to the full development of the gifted and talented (ASCA, 2001; Walker, 1982). In this advocacy role, counselors should work with teachers, principals, and other staff to foster a climate that is conducive to the growth of gifted and talented students (Davis & Rimm, 1998), as well as to advocate for the removal of institutional, systemic, and personal barriers to achievement for gifted and talented economically disadvantaged students and students of color (U.S. Department of Education, 1993).

Consultation

The role of school counselors in regard to consultation concerning gifted and talented students has been highlighted in the professional literature since the 1980's. Deiulio (1984) stated that school counselors should act as consultants to the school administration

regarding curriculum planning needs of gifted and talented students. In addition, counselors should consult directly with parents and teachers concerning how best to meet the needs of these students, providing suggestions on expected standards for quality and quantity of work and social-emotional problems that may arise (Davis & Rimm, 1998). For example, Walker (1982) suggested that counselors could provide in-service training for teachers to help them better understand the unique characteristics of these students so they may feel less threatened or hostile to these students. Similarly, counselors could conduct special seminars for parents of the gifted and talented, covering topics that will help them better understand their children (VanTassel-Baska, 1990), including those mentioned in the ASCA position statement.

Collaboration

School counselors should team with parents, psychologists, teachers, and others who influence gifted and talented students to conduct staffings on such problems as underachievement, social adjustment, or severe personal issues (VanTassel-Baska, 1990). They can involve outside specialists as warranted (Davis & Rimm, 1998). In addition, they should act as "chief communicators" to educational personnel regarding general issues of their gifted and talented students (VanTassel-Baska, 1990). As part of their collaborative role, counselors can foster partnerships between parents and schools (Colangelo, 2002), since home support is essential to student achievement. Areas to be addressed in these partnerships, suggested by Walker (1982), appear to have relevance today, including coaching parents in developing a warm and accepting relationship between children and their parents, providing intellectually stimulating appropriate experiences and materials, developing responsibility and independence in an ongoing

manner, developing strategies for dealing with problematic sibling relationships, and providing for privacy and time alone and opportunities for interaction with other families as well as within the community.

Information Clearinghouse

School counselors should assist gifted and talented students in locatingappropriate resources which may include human resources (e.g. role models and tutors) and material resources (e.g. educational and career information) (Davis & Rimm, 1998; VanTassel-Baska, 1990). In addition, school counselors can help match gifted and talented students to special interest programs that take place in the summer, on Saturdays, or after school, including internships and mentorships. Because bibliotherapy is such a widely used intervention strategy with gifted and talented students, it was suggested that school counselors be able to recommend age-appropriate books dealing with the issues that often come up concerning the gifted and talented.

Counseling

It has been suggested that school counselors be able to conduct counseling, both individual and group, for their gifted and talented students. The needs of these students appear greatest in the crucial areas of academic planning, psycho-social development, and career education (VanTassel-Baska, 1997). Although remedial counseling is often needed, counselors should strive for providing counseling that is developmental in nature, based on knowledge of the affective and cognitive needs of these students (Colangelo, 2002). Counselors would be useful in helping these students clarify and understand the ramifications of what it means to be gifted and talented and how they feel about it (Davis

& Rimm, 1998). Indeed, this issue, more than any other one, is unique to the differentiated characteristics and needs of the gifted and talented. Academic planning can be used to help match these students with academic programs that meet their unique gifted and talented needs, as well as to suggest student supports to enhance achievement. In addition, counselors can conduct classroom guidance activities to address some of these issues, including study skills, communication skills, test taking skills, and decision-making skills (Davis & Rimm, 1998; Walker, 1982).

Professional Development

School counselors should keep current with the latest research and best practices on counseling the gifted and talented (Colangelo, 2002; Colangelo & Davis, 1997). Counselors should regularly engage in professional development activities through which knowledge and skills in the area of programming for the needs of the gifted and talented are regularly upgraded (ASCA, 2001).

Evaluation and Research

In the 1980's, Walker (1982) called for counselors to monitor the academic and affective progress of students in gifted and talented programs, and Deiulio (1984) urged counselors to conduct follow-up evaluations of these students after graduation. More recently, it has been suggested that school counselors evaluate the strengths and weaknesses of counseling programs for gifted and talented students, including conducting needs assessments and developing measurable objectives with which to examine these programs (Davis & Rimm, 1998).

CHAPTER III: RESEARCH METHODOLOGY

This chapter will review the methodology that was used to address the following research questions:

3. What are the multiple dimensions underlying school counselors' *knowledge* and *perceptions* of, and *involvement* with gifted and talented students?
4. What is the relationship between school counselors' knowledge of gifted and talented students and their involvement with such students?
5. What is the relationship between school counselors' perceptions of gifted and and talented students and their involvement with such students?
6. Do school counselors' knowledge, perceptions, and involvement concerning gifted and talented students differ significantly across demographic variables such as counselors' years of counseling experience, gender, highest educational level attained, ethnic background, previous training in gifted and talented programming, place of training such training occurred, graduate counseling program's accreditation, school setting, percentage of students receiving free or reduced lunch, type of school, number of counselors in the school, presence of a gifted and talented program and/or specialist in the school, and percentage of case load comprised of gifted and talented students?

The design of the study will first be presented, followed by a description of the participants. A description of the instrumentation will be described next, followed by the procedures that were taken to contact the research participants, obtain their cooperation,

administer the survey instrument, and collect the data. Finally, a description of the analytic tools employed to analyze the data will be presented.

Design

As the first of its kind, this was an exploratory and descriptive study designed to examine school counselors' knowledge and perceptions concerning gifted and talented students, and to determine whether these variables influenced their involvement with such students. A comprehensive review of the professional literature was undertaken, focusing on variables that might influence school counselors' involvement with gifted and talented students. Specifically, the literature concerning counselors' knowledge of gifted and talented students seemed to organize itself around 1) general knowledge in this area, such as an historical overview of gifted and talented education, as well as the emergence of counseling as a strong force in this area, 2) various definitions of giftedness and talent, 3) the rationale for providing differentiated counseling services to gifted and talented students, 4) the characteristics of gifted and talented students, as well as issues and problems that may be encountered by them, 5) counseling intervention strategies with gifted and talented students, 6) identification process with gifted and talented students, including equitable practices that help remove barriers for ethnic and racial minorities underrepresented in programs for the gifted and talented, as well as 7) specific knowledge of gifted and talented students regarding their academic, social-emotional, and career issues. A summary of the literature pertaining to school counselors' knowledge of gifted and talented students that might possibly influence their involvement with these students may be seen in Table 1. The professional literature concerning the kinds of perceptions school counselors might have concerning gifted and talented

students that might influence their involvement with these students organized itself around the role of the school counselor, as well as the academic and social-emotional issues of gifted and talented students. A summary of the literature pertaining to school counselors' perceptions that might possibly influence their involvement with these students may be seen in Table 1. The professional literature concerning the kinds of involvement school counselors might have with their gifted and talented students organized itself around such activities as identification, counseling (both individual and group), consultation, collaboration, information clearinghouse, professional development, evaluation and research, and advocacy. A summary of the literature pertaining to school counselors' involvement with gifted and talented students may be seen in Table 2. Items for the survey instrument were based on the most salient information suggested by the literature review pertaining to school counselors' knowledge and perceptions of, and involvement with gifted and talented students. Based on the most frequently occurring evidence in the professional literature regarding variables that might influence school counselor involvement with the gifted and talented, a survey instrument was designed. Further details concerning the development of this survey are presented in the instrumentation section of this chapter.

Participants

The sample of elementary, middle, and high school counselors utilized in this study was drawn from the current database (2003-2004) of the American School Counselor Association (ASCA). ASCA is a nonprofit organization based in Alexandria, Virginia that supports school counselors' efforts to help students focus on academic, personal and social, and career development. The current mailing database of ASCA consists of more

than 14,000 members. The majority of these members, like school counselors in general, are female (Bryan, 2003; Holcomb-McCoy, Bryan, & Rahill, 2002). When asked for a randomly generated list of 650 names from its database for purposes of this study, ASCA sent a list of 654 names. Survey questionnaires were mailed to these 654 school counselors. The rationale for choosing approximately 650 participants was based on the goal of obtaining a minimum sample size of approximately 250 in order to conduct the statistical analyses proposed. Survey guidelines recommended that the number of mailed surveys be twice the number of participants needed, assuming a 50% response rate (Rea & Parker, 1997). However, because Alreck and Settle (1995) reported that response rates of over 30% were rare, as did Bryan (2003), whose work drew from the ASCA membership database, it was hoped that sending the survey to approximately 650 school counselors would yield at least 250 usable surveys. Demographic information was collected from the participants as follows: number of years as a school counselor, school setting (elementary, middle, high school), percentage of students at school receiving free or reduced lunch, type of school (public, private, charter), gender, highest degree attained, accreditation of graduate program, school counselor's ethnic background, number of counselors in school, training in gifted and talented programming, where such training mostly occurred, presence of a gifted and talented program and specialist in school, and percentage of case load comprised of gifted and talented students (see Table 3).

Of the 654 surveys mailed, 326 were returned. This represents a 49.8% rate of return. Of that number, 320 (48.9%) were usable. Five of the remaining six surveys were only

Table 3

Participant Characteristics (N = 320[a])

Characteristic	n	%
Years as a School Counselor		
1-5 years	51	15.9
6-10 years	81	25.3
11-15 years	82	25.6
16-20 years	42	13.1
over 20 years	64	20.0
School Setting		
Elementary	116	36.3
Middle/Junior HS	122	38.1
High School	46	14.4
Combined: Mid/JHS/HS	30	9.4
Other	6	1.9
Percentage Free or Reduced Lunch		
0%	10	3.1
1-20%	137	42.8
21-50%	96	30.0
over 50%	64	20.0
less than 1%	2	.6

Table 3 (continued)

Participant Characteristics (N = 320[a])

Characteristic	n	%
Type of School		
Public	289	90.3
Private	16	5.0
Charter	3	.9
Other	5	1.6
Gender		
Male	46	14.4
Female	274	85.6
Highest Level Attained		
B.S., B.A.	1	.3
M.S., M.A., M.Ed.	302	94.4
Ph.D., Ed.D	16	5.0
Program Accreditation		
CACREP	123	38.4
Non-CACREP	74	23.1
Don’t know	121	37.8

Table 3 (continued)

Participant Characteristics (N = 320[a])

Characteristic	n	%
Ethnic Background		
Hispanic	3	.9
African American	9	2.8
Asian/Pacific Islander	2	.6
White/European	298	93.1
Native American	4	1.3
Other	4	1.3
Number of Counselors in School		
1	140	43.8
2-3	137	42.8
4-5	26	8.1
6-7	6	1.9
8-9	4	1.3
over 10	7	2.2
GT Training		
None	126	39.4
1-8 hours	138	43.1
8-40 hours	43	13.4
more than 40 hours	11	3.4

Table 3 (continued)

Participant Characteristics (N = 320[a])

Characteristics	n	%
Where GT Training Mostly Occurred		
Graduate School	32	10.0
Practicum/Internship	2	.6
In-service	102	31.9
Graduate School & In-service	29	9.1
Graduate School & Practicum	3	.9
Graduate School, Practicum & In-service	9	2.8
Practicum & In-service	3	.9
Undergraduate School	2	.6
In-service & Conferences	5	1.6
In-service & Other	1	.3
Graduate School, In-service & Conference	1	.3
Other	5	1.6
GT Program in School		
Yes	230	71.9
No	87	27.2

Table 3 (continued)

Participant Characteristics (N = 320[a])

Characteristics	n	%
Percentage of Case Load Comprised of GT		
Don't Know	136	42.5
0%	11	3.4
less than 1%	11	3.4
1-5%	72	22.5
6-10%	34	10.6
11-20%	27	8.4
21-50%	16	5.0
51-99%	1	.3
100%	3	.9
GT Specialist in School		
Yes	175	54.7
No	141	44.1

[a]an N < 320 reflects missing data

partially completed by respondents. Additionally, one respondent chose to or unknowingly did not answer any of the items on the instrument. Consistent with the demographics of members of ASCA, an overwhelming majority identified their ethnic background as White/European (93.1% (n = 298). The remaining respondents identified their ethnicity as follows: 2.8% (n = 9) African American, 1.3% (n = 4) Native American, .9% (n = 3) Hispanic, .6% (n = 2) Asian/Pacific Islander, and 1.3% (n = 4) "other." In regard to school setting, 36.3% of the respondents worked at elementary schools, 38.1% at middle/junior high schools, 14.4% at high schools, and 9.4% at combined middle/junior high/high schools. Additionally, 42.8% of respondents reported that 1-20% of their school received free or reduced lunch, 30% reported that 21-50% of their school received free or reduced lunch, and 20% reported that over 50% of their school received free or reduced lunch. While 39.4% of respondents indicated they had received no training in gifted and talented programming, 43.1% reported 1-8 hours of such training and 13.4% reported 8-40 hours of training. Training was reported to have occurred during in-service work (31.9%) and graduate school (10%), or a combination of the two (9.1%). Many of the respondents reported there was a gifted and talented program in their school (71.9%), while 27.2% indicated there was no such program at their school. Slightly more than half of the respondents indicated there was a gifted and talented specialist in their school (54.7%), while 44.1% reported that such a specialist was not present in their school. When asked the percentage of their case load comprised of gifted and talented students, 42.5% of respondents reported they did not know, while 22.5% reported 1-5%, 10.6% reported 6-10%, 8.4% reported 11-20%, 5.0% reported 21-50%, 3.4% reported less than 1%, another 3.4% reported 0%, .9% reported 100%, and .3% reported 51-99%.

Instrumentation

The survey instrument consisted of five sections: 1) demographic information, 2) school counselors' knowledge concerning gifted and talented students, 3) school counselors' perceptions concerning gifted and talented students, 4) school counselors' level of involvement with gifted and talented students, and 5) an open-ended question to elicit additional comments from participants. Items for each section were gleaned from the professional literature concerning gifted and talented education. A copy of the questionnaire may be found in Appendix B**.**

The first section solicited demographic information from the participants. It consisted of 15 questions pertaining to school counselors' years of service as school counselors, school setting (elementary, middle, high school), type of school (public, private, charter), community in which their school was located (suburban, rural, urban), gender, highest degree attained, accreditation of graduate program, ethnic background, number of counselors in the school, amount of training in gifted and talented education they had received, existence of a gifted and talented program in their school, the percent of gifted and talented students in their case load, and the existence of a GT specialist in their school.

In the second section, consisting of 26 items, participants were asked to rate their knowledge concerning gifted and talented students using a Likert scale (1=no knowledge, 2=little knowledge, 3=some knowledge, 4=knowledgeable, and 5=very knowledgeable).

In the third section, consisting of 26 items, participants were asked to rate their perceptions concerning gifted and talented students using a Likert scale (1= strongly disagree, 2=disagree, 3**=**undecided, 4=agree, and 5=strongly agree).

In the fourth section, consisting of 17 items, participants were asked to rate their level of involvement with gifted and talented students using a Likert scale (1=never, 2=rarely, 3=occasionally, 4=fairly often, and 5=frequently).

The fifth section was open-ended, asking participants to share any other pertinent information or comments concerning working with gifted and talented students.

The original instrument was piloted on seventeen master's level counseling interns in the final year of their school counseling program. They were enrolled in a family counseling course offered in the fall, 2003 semester, but their participation was voluntary and not part of their degree requirements. Feedback was obtained on such topics as the clarity and appropriateness of items, survey format and length, flow of survey, and clarity of directions and instructions.

A number of respondents suggested that the "somewhat agree" category in the third section of the original instrument be amended to a neutral option such as "don't know" or "unsure." After consultation with a professor on the statistics faculty of the University of Maryland, this category was changed to "undecided." In addition, questions three and four of the third section were found to be confusing by one respondent ("There is a sizable minority of GT students who are academically at risk" and "There is a sizable minority of GT students who are psychologically at risk"). These two questions were reworded, replacing "minority" with "number," which was thought to be less confusing. Also in regard to the third section, one respondent objected to the poetic diction of question 8 ("GT students, like cream, will rise to the top on their own") and question 18 ("GT students ripen early (intellectually) and rot early (psychologically"), as well as question 12. These questions were reworded. Finally, the lines following the open-ended

question were eliminated so as not to influence the respondent's decision as to how much other information or comments they were expected to share.

The survey instrument was also sent to Joyce VanTassel-Baska and Michelle Greene, two "experts" in counseling the gifted and talented (see Appendix C) to get feedback concerning the relevance of the items to the professional literature on gifted and talented students, as well as to elicit suggestions for improving the survey. It was suggested that it would be interesting to find out the number of counselors in the school counseling departments of the respondents, as well as whether or not there was a gifted and talented specialist in the building; these questions were added to the demographics section of the instrument. It was also suggested to try to group the stems under sub-headings to make the survey easier for respondents, but the stems seemed too short and varied. Clarification was proposed for questions 3, 4, 8, and 22 in section 2, and questions 1 and 6 in the third section, as well as a suggestion to rework the stem of question 7. All these questions were subsequently amended.

Procedures

The survey packet was mailed to approximately 650 participants. The number of participants was based on survey guidelines that stipulated that the number of mailed surveys should be twice as many as the number of participants desired, assuming a 50% response rate (Rea & Parker, 1997). However, after examining response rates from previous studies that made use of ASCA's membership for mailed surveys, Bryan (2003) reported that a 30% response rate was usual. This finding was consistent with that of Alreck and Settle (1995) who observed that survey response rates of over 30% were rare. Given the number of variables involved, and the common wisdom that holds that the

number of surveys mailed should be equivalent to three times the number of survey items, a sample size of approximately 250 was considered adequate to conduct the statistical analyses proposed, including principal components analysis with varimax rotation and analyses of variance. Therefore the number of school counselors to whom the survey was mailed was chosen to be greater than 500 in case the return rate was less than 50%.

In an effort to ensure the highest possible response rate, techniques recommended for increasing response rates were followed, including printing surveys on green stationery instead of white and printing cover letters with the University of Maryland's name prominently displayed to highlight university sponsorship (Fox, Crask, & Kim, 1988). In addition, an incentive (a green tea bag stapled to a professionally designed flyer suggesting that respondents relax with a cup of tea while they completed the survey) accompanied the survey (see Appendix D). The decision to include a tea bag as an incentive was based on the work of Alreck and Settle (1995) who believed that incentives should not be of great value, and should just demonstrate goodwill on the researcher's part, as well as serve to catch respondents' attention and put them into a more receptive frame of mind. They urged that incentives not be contingent on response, because bias might be introduced due to respondents feeling they had to be more positive toward the issues involved in order to "earn" their gift. They suggested that money not be used as an inducement, and believed that drawings and sweepstakes could also be a source of bias because people who are not willing to reveal their identity might answer the survey questions differently from those willing to do so.

The survey packet consisted of a cover letter (see Appendix A), the survey instrument (see Appendix B), a self-addressed stamped envelope, and the tea bag (see Appendix D). The survey packet was mailed to participants in mid-February, 2004. The cover letter provided information pertaining to the purpose and significance of the study, selection procedures, and the importance of the respondent's participation. Participants were instructed to return questionnaires within 10 days of receipt of the original mailing. No consent form was included, since participants were told in the cover letter that their participation was strictly voluntary, and that the return of a completed questionnaire would be indicative of their full consent. Finally, the cover letter let participants know that their responses would be held in the strictest confidence, and that no names would be used in any report of the findings of the study.

In order to more easily track survey returns and to conduct follow up reminders for unreturned questionnaires, each packet was numbered with an identification number (001 – 650). An explanation of the uses for the identification number was included in the cover letter, and participants were assured that at the completion of the study, all records linking participants to identification numbers would be destroyed.

Follow up reminders to participants who did not return questionnaires were sent via e-mail (if addresses available) after one and two weeks from the initial mailing. An additional follow up e-mail reminder was sent three weeks after the initial mailing to those who had not returned questionnaires, and included a second questionnaire that participants were instructed could be e-mailed back.

Data Analysis

Method of Analysis: Descriptive Analyses

Descriptive analyses were undertaken to determine the mean and standard deviation for each of the questionnaire items on all parts of the instrument, in order to describe school counselors' knowledge and perceptions of gifted and talented students, as well as their level of involvement with these students. These descriptions were later used to compare responses across all demographic variables. Frequencies and percentages of responses to the demographic section were also compiled.

Method of Analysis: Research Question Number One: What are the multiple dimensions underlying school counselors' knowledge and perceptions of, and involvement with gifted and talented students?

Principal components analyses with varimax rotation were conducted to determine whether there were one or multiple dimensions underlying the knowledge, perceptions, and involvement items. The criteria used to determine the number of components were the scree test, the interpretability of the factors, and the eigenvalue-over-one criteria, considered to be the least accurate (Green & Salkind, 2003). The number of components identified from the principal components analyses with varimax and oblique rotations determined how many variables were involved in the subsequent correlation and regression analyses, as well as the analyses of variance.

It was found that the principal components analyses provided evidence that the items on the survey consisted of scales measuring two distinct dimensions for the construct of school counselors' knowledge of gifted and talented students, and nine for school

counselors' perceptions of gifted and talented students. There appeared to be three dimensions underlying school counselors' involvement with gifted and talented students. Descriptions of these principal components will be provided in detail in chapter four.

Cronbach's alpha coefficients, measures of reliability, were computed to measure the degree of internal consistency for each of the items included in the newly-created scales underlying the constructs of school counselors' knowledge and perceptions of gifted and talented students as well as their involvement with these students. Although no decisions were made to exclude items on the basis of the coefficient alpha, this statistic was used to help determine the number of principal components that emerged for each construct.

Method of Analysis: Research Question Number Two:

What is the relationship between school counselors' knowledge of gifted and talented students and their involvement with such students?

Pearson's Product-Moment correlation was used to investigate whether a possible relationship was detected between school counselors' knowledge of gifted and talented students and school counselors' level of involvement with these students. In addition, regression analyses were conducted to see if school counselors' knowledge of gifted and talented students might predict their level of involvement with such students.

Method of Analysis: Research Question Number Three:

What is the relationship between school counselors' perceptions of gifted and talented students and their involvement with such students?

Pearson's Product-Moment correlation was used to investigate whether a possible relationship was detected between school counselors' perceptions of gifted students and

school counselors' level of involvement with these students. In addition, regression analyses were conducted to see if school counselors' perceptions of gifted and talented students might predict their level of involvement with such students.

Method of Analysis: Research Question Number Four:

Do school counselors' knowledge, perceptions, and involvement concerning gifted and talented students differ significantly across demographic variables such as counselors' years of counseling experience, gender, highest educational level attained, ethnic background, previous training in gifted and talented programming, place of training such training occurred, graduate counseling program's accreditation, school setting, percentage of students receiving free or reduced lunch, type of school, number of counselors in the school, presence of a gifted and talented program and/or specialist in the school, and percentage of case load comprised of gifted and talented students?

When making comparisons across various demographic variables, analysis of variance (ANOVA) was employed. For demographic variables involving more than two choices, significant ANOVAs were followed up with post hoc comparisons to evaluate differences in means.

CHAPTER 4: RESULTS

The results of the analysis of the data collected in this study are presented in this chapter in order to examine the following research questions:

1. What are the multiple dimensions underlying school counselors' *knowledge* and *perceptions* of, and *involvement* with gifted and talented students?
2. What is the relationship between school counselors' knowledge of gifted and and talented students and their involvement with such students?
5. What is the relationship between school counselors' perceptions of gifted and talented students and their involvement with such students?
6. Do school counselors' knowledge, perceptions, and involvement concerning gifted and talented students differ significantly across demographic variables such as counselors' years of counseling experience, gender, highest educational level attained, ethnic background, previous training in gifted and talented programming, place of training such training occurred, graduate counseling program's accreditation, school setting, percentage of students receiving free or reduced lunch, type of school, number of counselors in the school, presence of a gifted and talented program and/or specialist in the school, and percentage of case load comprised of gifted and talented students?

Research Question Number One:

Dimensions Underlying Knowledge, Perceptions, and Involvement

Dimensions Underlying Knowledge

The dimensionality of the 26 survey items assessing school counselors' knowledge of gifted and talented students was analyzed using principal components analysis. In the component extraction stage of this two-staged procedure, three criteria were used to determine the number of components to rotate: the scree test, the eiganvalue-over-one criteria, and the interpretability of the components. Although the scree test seemed to indicate only one strong dimension, it was found that the eiganvalue-over-one criteria, as well as the interpretability of the components suggested more than one dimension underlying school counselors' knowledge of gifted and talented students. In addition, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's test of sphericity were used in order to determine if the survey items measuring school counselors' knowledge of gifted and talented students were factorable and adequate to fulfill the minimum standard for proceeding to the component rotation stage of the analysis. The KMO statistic was found to be .97, and Bartlett's test of sphericity indicated a chi-square value of 8812.18 with 325 degrees of freedom, and a significance level of $p = .00$. These results were considered adequate to continue with the principal components analysis. Varimax rotations were conducted in order to maximize the variance and look for a clearer delineation of components. Initial item values indicated that 71.7% of the variance of the 26 items was explained by two interpretable components. However, it was found that the items that might have accounted for a separate component seemed to load strongly on both components. Direct Oblimin, an

oblique rotation used for non-orthogonal items, was conducted, and two clear dimensions emerged—general knowledge concerning gifted and talented students, termed "general GT knowledge," and specific knowledge pertaining to the identification of gifted and talented students, termed "identification knowledge." (See Table 4 for the structure coefficients.)

General GT Knowledge

The first component accounted for 66.02% of the variance among the 26 items. This component consisted of 24 items drawn from most of the topics suggested by the professional literature, including 1) general knowledge about the gifted and talented (historical overview of giftedness and talent, definitions, rationale for differentiated counseling, characteristics of gifted and talented students, intervention strategies, myths, and individual differences among gifted and talented students),

2) academic issues (academic choices and course selection, remedial reading and study skill needs, underachievement, and behaviors in a heterogeneous classroom), 3) social-emotional issues (counseling needs, feelings experienced by gifted and talented students, impact of perfectionism on self-esteem, impact of a heightened sensitivity, developmental and remedial counseling approaches, and research on counseling needs), and 4) career development issues (unique needs, impact of multipotentiality, perfectionism, and others' expectations).

Structure coefficients for these general GT knowledge items ranged from .69 to .89. Table 4 contains the structure coefficients for each of these items. There was high internal consistency among the items of this component. The coefficient alpha was found

Table 4

Structure Coefficients from Principal Components Analysis for the Knowledge Items with Oblimin with Kaiser Normalization Two-Factor Solution and Coefficient Alphas

Items	Structure Coefficient
Component 1: General GT Knowledge (N = 305[a])	
12. The unique academic counseling needs of GT students	.89
18. The unique social-emotional counseling needs of GT students	.89
23. The impact of a heightened sensitivity on the emotional development of GT students	.87
13. The impact of perfectionism on academic choices of GT students	.87
24. The unique career development needs of GT students	.87
22. The "negative" feelings experienced by many GT students	.87
10. Developmental counseling approaches when counseling GT students	.87
19. The impact of perfectionism on the self-esteem of GT students	.86
26. The impact of perfectionism on the career choices of GT students	.85
20. The impact of others' expectations on the choices of GT students	.84
4. Effective intervention strategies for personal issues of GT students	.84
25. The impact of perfectionism on the career choices of GT students	.83
21. The behaviors of GT students in a heterogeneous clasroom	.83
14. The impact of multipotentiality on academic choices of GT students	.83
3. The differentiated personality characteristics of GT students from the rest of the population in general	.82
11. Remedial counseling approaches when counseling GT students	.82

(Table 4 continued)

Structure Coefficients from Principal Components Analysis for the Knowledge Items with Oblimin with Kaiser Normalization Two-Factor Solution and Coefficient Alphas

Items		Structure Coefficient
Component 1 continued: General GT Knowledge (N = 305[a])		
17. Possible underlying causes for underachievement of GT students		.82
6. Research concerning the counseling needs of GT students		.82
7. The range of individual differences among GT students		.80
5. Myths about GT students		.80
16. The remedial study skills needs experienced by some GT students		.80
2. The historical context of counseling GT students		.76
15. The remedial reading needs experienced by some GT students		.73
1. The most widely used definitions of GT		.69
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.97
Bartlett's Test of Sphericity	Approx. Chi-Square	8812.18
	Df	325
	Sig.	.00
Eiganvalue		17.16
% of Variance		66.02
Coefficient Alpha for Component 1		.98
Component 2: Identification Knowledge (N = 314[a])		
9. How one determines if a particular student has been identified as GT		.90

(Table 4 continued)

Structure Coefficients from Principal Components Analysis for the Knowledge Items with Oblimin with Kaiser Normalization Two-Factor Solution and Coefficient Alphas

Items		Structure Coefficient
Component 2 continued: Identification Knowledge (N = 305[a])		
8. The process for identifying GT students in your district		.89
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.97
Bartlett's Test of Sphericity	Approx. Chi-Square	8812.18
	Df	325
	Sig.	.00
Eiganvalue		1.49
% of Variance		5.70
Coefficient Alpha for Component 2		.93

[a]an N < 320 reflects missing data

to be .98. Inter-item correlations ranged from .49 to .88 with most falling above .60. Item to scale correlations ranged from .67 to .88.

Identification Knowledge

The second component accounted for 5.70% of the item variance, with structure coefficients of .90 and .89 (see Table 4). High internal consistency among these two items was also found, as evidenced by a coefficient alpha of .93. The item to scale correlation was .87. Because this scale only contained two items, the inter-item correlation was determined to be the same as the item to scale correlation. Both items dealt directly with the process of identifying gifted and talented students.

Dimensions Underlying Perceptions

In order to determine whether there were any dimensions underlying the 26 survey items that assessed school counselors' perceptions of gifted and talented students, a preliminary unrotated principal components analysis was conducted. It was found that the eiganvalue-over-one criteria as well as the interpretability of the components suggested nine components underlying school counselors' perceptions of gifted and talented students, although the scree test seemed to confirm the existence of only four or five dimensions. A KMO statistic of .70 was obtained, as well as a chi-square of 1143.67 with 325 degrees of freedom and a significance level of $p = .00$ for Bartlett's Test of Sphericity. It was determined that these results supported proceeding to the component rotation stage of the principal components analysis. Varimax rotations were conducted followed by Direct Oblimin, an oblique rotation procedure. Although several components

emerged, it was difficult to arrive at a solution with clear dimensions. Many of the items did not seem to fit uniquely on any one component, and many of the components did not seem to hold together well. Part of the difficulty seemed to be due to the fact that the perception items were not structured to consistently determine a "favorable" or "unfavorable" perception of gifted and talented students. While some items clearly indicated a favorable perception, such as "I enjoy counseling GT students," and others indicated an unfavorable perception, such as "Providing for the needs of GT students creates a snobbish elite," many of the items were ambiguous, and could be viewed as either favorable or unfavorable, or even neither of these options, such as "GT students have a heightened sense of justice." Moreover, the items were not consistent in how they related to whether or not school counselors would be more involved with their gifted and talented students on the basis of the particular perception held. For example, if school counselors strongly agreed with the item "GT students are eccentric and kind of peculiar," it is unclear as to whether they would become more or less involved in working with these students. It would have been helpful to have constructed these items in a way that as scores on the perceptions scale increased, an increase in scores on the involvement scale might be expected to occur.

Solutions employing two to nine components were attempted, with the nine-component solution being the clearest and most reflective of salient issues in the professional literature concerning perceptions concerning the gifted and talented. Although some of the dimensions demonstrated poor measures of internal consistency estimates of reliability, and many only contained a small number of items, the nine-component solution was deemed the best of all options, including thinking of school

counselors' perceptions of gifted and talented students as unidimensional. It seemed important to accept these underlying dimensions of school counselors' perceptions, despite the low reliability of some of the dimensions, because of their interpretability, and because of the usefulness of this data for an exploratory study such as this. These nine components accounted for 56.80 % of the item variance. Table 5 presents structure coefficients for these components.

Naming these nine components proved to be difficult, since there was some overlap among components, as well as some items that did not seem to fit as well with the others on the same dimension. The nine interpretable dimensions were termed as follows: "at-risk academic and social-emotional characteristics of GT students," "understanding GT students," "counseling GT students," "fairness in meeting needs of GT students," "rationale for meeting needs of GT students," "unique characteristics of GT students," "adjustment of GT students," "'fitting in' of GT students," and "time constraints for meeting needs of GT students."

At-risk Academic and Social-emotional Characteristics of GT Students

The structure coefficients for the five items of this component ranged from .53 to .75 (see Table 5). The item variance accounted for by this component was 14.60%. The coefficient alpha of .71 for this scale was the highest of the nine dimensions, and was in keeping with the fact that all five items seemed to deal with perceived "negative" academic and social-emotional traits of some gifted and talented students, such as being prone to suicide more than their non-gifted and talented peers, as well as being socially rejected by their non-gifted and talented peers.

Table 5

Structure Coefficients from Principal Components Analysis for the Perceptions Items with Oblimin with Kaiser Normalization Nine-Factor Solution and Coefficient Alphas

Items		Structure Coefficient
Component 1: At-risk Academic and Social-emotional Characteristics of GT Children (N = 317[a])		
4. There is a sizable number of GT students who are psychologically at risk		.75
3. There is a sizable number of GT students who are academically at risk		.72
7. GT students are often bored in the classroom		.63
6. GT students are often socially rejected by their non-GT peers		.60
5. GT students are prone to suicide in greater numbers than their non-GT peers		.53
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.70
Bartlett's Test of Sphericity	Approx. Chi-Square	1143.67
	Df	325
	Sig.	.00
Eiganvalue		3.80
% of Variance		14.60
Coefficient Alpha for Component 1		.71
Component 2: Understanding GT Students (N = 314[a])		
11. Because of their extensive vocabulary, GT students may be viewed as an intellectual threat by their teachers		.71
18. GT students of color may manifest their giftedness and talent in ways that do not match those of non-minority students		.68

Table 5 (continued)

Structure Coefficients from Principal Components Analysis for the Perceptions Items with Oblimin with Kaiser Normalization Nine-Factor Solution and Coefficient Alphas

Component 2 continued: Understanding GT Students (N = 314[a])		
21. GT students may experience certain kinds of issues that are unique to them because of their unique characteristics		.50
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.70
Bartlett's Test of Sphericity	Approx. Chi-Square	1143.67
	Df	325
	Sig.	.00
Eiganvalue		2.08
% of Variance		8.01
Coefficient Alpha for Component 2		.53
Component 3: Counseling GT Students (N = 311[a])		
1. I enjoy counseling GT students		-.65
10. When it comes to being sensitive to the social needs of their non-GT peers, GT students demonstrate this attitude more than the reverse		-.56
15. Counselors need knowledge and expertise both in counseling and in GT education in order to be most effective with their GT students		-.53

Table 5 (continued)

Structure Coefficients from Principal Components Analysis for the Perceptions Items with Oblimin with Kaiser Normalization Nine-Factor Solution and Coefficient Alphas

Component 3 continued: Counseling GT Students (N = 311[a])		
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.70
Bartlett's Test of Sphericity	Approx. Chi-Square	1143.67
	Df	325
	Sig.	.00
Eiganvalue		1.65
% of Variance		6.3
Coefficient Alpha for Component 3		.34

Component 4: Fairness in Meeting Needs of GT Students (N = 316[a])		
19. Providing for the needs of GT students creates a snobbish elite		.74
1. Most GT students are well-adjusted in general		.66
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.70
Bartlett's Test of Sphericity	Approx. Chi-Square	1143.67
	Df	325
	Sig.	.00
Eiganvalue		1.45
% of Variance		5.59
Coefficient Alpha for Component 4		.03

Table 5 (continued)

Structure Coefficients from Principal Components Analysis for the Perceptions Items with Oblimin with Kaiser Normalization Nine-Factor Solution and Coefficient Alphas

Component 5: Rationale for Meeting Needs of GT Students (N = 313[a])		
20. Providing for the needs of GT students fits in with the ideals of our democratic way of life		.68
26. GT students require differentiated counseling due to their atypical developmental needs		.53
25. It is difficult to be gifted and talented, especially for teenagers		.52
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.70
Bartlett's Test of Sphericity	Approx. Chi-Square	1143.67
	Df	325
	Sig.	.00
Eiganvalue		1.27
% of Variance		4.89
Coefficient Alpha for Component 5		.18
Component 6: Unique Characteristics of GT Students (N = 314[a])		
13. GT students have a low tolerance for ambiguity and tend to see things as right or wrong		-.73
14. GT students have a heightened sense of justice		-.71
12. GT students are argumentative		-.36
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.70

Table 5 (continued)

Structure Coefficients from Principal Components Analysis for the Perceptions Items with Oblimin with Kaiser Normalization Nine-Factor Solution and Coefficient Alphas

Component 6 continued: Unique Characteristics of GT Students (N = 314[a])		
Bartlett's Test of Sphericity	Approx. Chi-Square	1143.67
	Df	325
	Sig.	.00
Eiganvalue		1.22
% of Variance		4.69
Coefficient Alpha for Component 6		.49

Component 7: Adjustment of GT Students (N = 314[a])		
8. GT students will rise to the top on their own		.-.63
22. GT students excel in most areas of life		-.59
2. The degree to which GT students are well adjusted is consistent throughout their years of schooling		-.56
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.70
Bartlett's Test of Sphericity	Approx. Chi-Square	1143.67
	Df	325
	Sig.	.00
Eiganvalue		1.14
% of Variance		4.40
Coefficient Alpha for Component 7		.50

Table 5 (continued)

Structure Coefficients from Principal Components Analysis for the Perceptions Items with Oblimin with Kaiser Normalization Nine-Factor Solution and Coefficient Alphas

Component 8: "Fitting in" of GT Students (N = 317[a])		
9. GT students are eccentric and kind of peculiar		.76
23. GT students have higher self-concepts in the academic arena than in the interpersonal arena		.43
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.70
Bartlett's Test of Sphericity	Approx. Chi-Square	1143.67
	Df	325
	Sig.	.00
Eiganvalue		1.10
% of Variance		4.22
Coefficient Alpha for Component 8		.28
Component 9: Time Constraints for Meeting Needs of GT Students (N = 316[a])		
16. GT students in need of special counseling services should seek them outside the school		.78
17. Working with GT students is an added responsibility		.49
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.70
Bartlett's Test of Sphericity	Approx. Chi-Square	1143.67
	Df	325

Table 5 (continued)

Structure Coefficients from Principal Components Analysis for the Perceptions Items with Oblimin with Kaiser Normalization Nine-Factor Solution and Coefficient Alphas

Component 9 continued: Time Constraints for Meeting Needs of GT Students (N = 316[a])	
Sig.	.00
Eiganvalue	1.06
% of Variance	4.09
Coefficient Alpha for Component 9	.18

[a]an N < 329 reflects missing data

Understanding GT students

The structure coefficients for the three items of this component ranged from .50 to .71 (see Table 5). Accounting for 8.00% of the item variance, this dimension seemed to include items that dealt with misunderstandings and misinterpretation of the behavior of gifted and talented students in a variety of domains. For example, the item "GT students of color may manifest their giftedness and talent in ways that do not match non-minority students" appeared alongside the seemingly dissimilar item that stated "Because of their extensive vocabulary, GT students may be viewed as an intellectual threat by teachers." What both of these items seemed to have in common was school counselors' perceptions of a lack of understanding concerning how gifted and talented students may present themselves. The coefficient alpha for this dimension was .53.

Counseling GT Students

Most of the items appearing on this dimension concerned the attitudes and needs of school counselors working with gifted and talented students, rather than the attitudes and needs of their counselees. However, one item contained in the previous component, "GT students may experience certain kinds of issues that are unique to them because of their unique characteristics," had an almost equally strong structure coefficient on this dimension. Moreover, the item "When it comes to being sensitive to the social needs of non-GT peers, GT demonstrate this attitude" was the only item on this component that seemed to focus on students rather than school counselors. This dimension illustrates the difficulties encountered in identifying and naming the dimensions of school counselors' perceptions concerning gifted and talented students. In some ways, this dimension had a strong "counselor role" component, but not all the items seemed to fit. Indeed, with only three items, it seemed important that the name given to the dimension reflect all the items contained, rather than just highlight the school counselors' role in working with the gifted and talented. The item variance accounted for by the three items of this component was 6.30%. The structure coefficients varied from .53 to .65, with a coefficient alpha of .34 (see Table 5).

Fairness in Meeting Needs of GT Students

Only two items were included in this dimension, with structure coefficients reported to be .66 and .74 (see Table 5). The item variance accounted for by this component was 5.60%. The coefficient alpha for this scale was only .03, but the items seemed to address

the issue of equity that has always been an important theme in the professional literature regarding gifted and talented students.

Rationale for Meeting Needs of GT Students

Three items were included in this component with structure coefficients ranging from .52 to .68 (see Table 5). The item variance accounted for by this component was 4.90%. The coefficient alpha for this scale was reported to be .18.

Unique Characteristics of GT Students

This component contained three items, with structure coefficients ranging from -.36 to.-73 (see Table 5). This dimension explained 4.70% of the variance for the 26 items. The coefficient alpha was .49. All three items seemed to describe the characteristics of some GT students that might make it more difficult for them to get along with others, including being argumentative and having a heightened sense of justice.

Adjustment of GT Students

Explaining 4.40% of the item variance, this component included three items with structure coefficients ranging from -.56 to -.63 (see Table 5). The alpha coefficient was .50, and the items seemed to fit together well, concerning themselves with the degree to which gifted and talented students are well adjusted and can rise to the top on their own.

"Fitting in" of GT Students

Although just two items were included in this component, and had structure coefficients of .43 and .76 (see Table 5), they seemed to fit together well, having the

common thread of the perceptions held by some school counselors regarding the interpersonal difficulties of some gifted and talented students. These items accounted for 4.20% of the variance. However, the alpha coefficient was .28.

Time Constraints for Meeting Needs of GT Students

Having structure coefficients of .49 and .78, the two items of this component accounted for 4.10% of the item variance (see Table 5). The alpha coefficient was only .18.

Dimensions Underlying Involvement

Principal components analyses were undertaken in order to determine whether there were any dimensions underlying the 17 survey items that assessed school counselors' involvement with gifted and talented students. During the component extraction stage of this analysis, it was found that the eiganvalue-over-one criteria as well as the interpretability of the factors suggested three components underlying school counselors' involvement with gifted and talented students. The scree test seemed to suggest the existence of only one or two dimensions. A KMO statistic of .93 was obtained, as well as a chi-square of 2969.82 with 136 degrees of freedom and a significance level of $p = .00$ for Bartlett's Test of Sphericity. These statistics provided evidence to continue to the component rotation stage of principal components analysis. Varimax rotations were conducted, followed by Direct Oblimin, to provide a clearer picture of the dimensions that might underlie the construct of involvement. Three components emerged which together accounted for 64.10% of the item variance (see Table 6). They were named as follows: "professional development and support services to GT students and their

Table 6

Structure Coefficients from Principal Components Analysis for the Involvement Items with Oblimin with Kaiser Normalization Three-Factor Solution and Coefficient Alphas

Items	Structure Coefficient
Component 1: Professional Development and Support Services to GT Students and Their Families (N = 308[a])	
13. Establishing parent education services that focus on the needs of GT children, such as information sessions and group discussions	.84
15. Providing leadership in the establishment of training and awareness programs concerning GT students to administrators and staff	.79
14. Engaging in professional development activities through which knowledge and skills in the area of programming for the needs of GT students are regularly upgraded	.78
10. Providing group counseling for GT students, as warranted, based on an understanding of their unique needs	.76
9. Conducting workshops for GT students concerning such topics as time management and test anxiety	.76
11. Providing family counseling for GT students and their families, as warranted, based on an understanding of their unique needs	.74
16. Providing an information clearinghouse for outside resources that could benefit GT students, including human resources (role models and mentors) and material resources (libraries and universities)	.68

(Table 6 continued)

Structure Coefficients from Principal Components Analysis for the Involvement Items with Oblimin with Kaiser Normalization Three-Factor Solution and Coefficient Alphas

Items		Structure Coefficient
Component 1 continued: Professional Development and Support Services to GT Students and Their Families (N = 308[a])		
17. Evaluating and assessing the strengths and weaknesses of the school counseling program for GT students		.68
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.93
Bartlett's Test of Sphericity	Approx. Chi-Square	2969.82
	Df	136
	Sig.	.00
Eiganvalue		8.33
% of Variance		49.00
Coefficient Alpha for Component 1		.89
Component 2: Counseling, Consultation, and Referral of GT Students and Their Families (N = 301[a])		
7. Referring GT students for academic support, as needed		.88
8. Referring GT students for emotional support, as needed		.87
6. Encouraging GT students to take rigorous and challenging classes		.81

(Table 6 continued)

Structure Coefficients from Principal Components Analysis for the Involvement Items with Oblimin with Kaiser Normalization Three-Factor Solution and Coefficient Alphas

Items		Structure Coefficient
commensurate with their ability level		
5. Providing individual counseling for GT students, as warranted based on the understanding of their unique needs		.73
12. Consulting, as needed, with parents of the gifted		.58
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.93
Bartlett's Test of Sphericity	Approx. Chi-Square	2969.82
	Df	136
	Sig.	.00
Eiganvalue		1.41
% of Variance		8.30
Coefficient Alpha for Component 2		.83
Component 3: Advocacy (N = 319[a])		
3. Working with teachers, principals, and other staff to foster a better school climate for GT students		.81
1. Assisting in the identification of GT students		.81
2. Advocating for GT students by assisting with their individual progress through appropriate school experiences		.78

(Table 6 continued)

Structure Coefficients from Principal Components Analysis for the Involvement Items with Oblimin with Kaiser Normalization Three-Factor Solution and Coefficient Alphas

Items		Structure Coefficient
4. Consulting with other school professionals regarding problems and needs of individual GT students		.74
Kaiser-Meyer-Olin Measure of Sampling Adequacy		.93
Bartlett's Test of Sphericity	Approx. Chi-Square	2969.82
	Df	136
	Sig.	.00
Eiganvalue		1.16
% of Variance		6.80
Coefficient Alpha for Component 3		.85

families," "counseling, consultation, and referral of GT students and their families, and "advocacy." One of the differences between the first two dimensions of involvement was that the first tended to focus on indirect services for gifted and talented students, while the second tended to focus on direct services for these students.

Professional Development and Support Services to GT Students and Their Families

Eight items were included in this component with structure coefficients ranging from .68 to .84 (see Table 6). The item variance accounted for by this component was by far the largest of the three—49.00%. The coefficient alpha was .89, and inter-item correlations ranged from .37 to .64; item to scale correlations ranged from .61 to .75.

Counseling, Consultation, and Referral of GT Students and Their Families

The second component was comprised of six items, and accounted for 8.30% of the item variance, with structure coefficients ranging from .59 to .88 (see Table 6). The coefficient alpha for this component was .83. Inter-item correlations ranged from .34 to .81, and item to scale correlations ranged from .46 to .76.

Advocacy

Three items were included in the third component, which accounted for 6.80% of the item variance (see Table 6). The coefficient alpha was .85, consistent with the other dimensions of involvement. Inter-item correlations ranged from .47 to .73, and item to scale correlations ranged from .56 to .79.

Research Question Number Two:

Relationship between School Counselors' Knowledge of Gifted and Talented Students and Their Involvement with Such Students

Pearson's Product-Moment correlations were computed to investigate whether a relationship was detected between the two dimensions underlying school counselors' knowledge of gifted and talented students and the three dimensions underlying school counselors' involvement with these students. The results of the correlational analyses are presented in Table 7 and show that correlations between knowledge and involvement ranged from .39 to .68, with all correlations statistically significant at the $p < .01$ level. General GT knowledge demonstrated the strongest correlation with involvement (professional development and support services to GT and their families), with a correlation of $r = .68$. The correlations of identification knowledge with involvement tended to be lower than those of general GT knowledge, but still were significant. In general, the results suggest that school counselors who reported that they were knowledgeable about gifted and talented students and their identification tended to report frequent involvement with these students.

Linear regression analyses were conducted to determine whether school counselors' involvement with gifted and talented students can be predicted by school counselors' knowledge. Prior to conducting these analyses, the variables were screened for normality using skewness and kurtosis values and frequency histograms for each variable. All but two of the variables were found to be normally distributed. The exceptions were two

Table 7

Intercorrelations forthe Five Components Derived from the Involvement and Knowledge Items

Variable	1	2	3	4	5
1. General GT Knowledge	-				
2. ID Knowledge	.56***	-			
3. Involvement: Professional Development	.68***	.39***	-		
4. Involvement: Counseling & Consultation	.61***	.39***	.65***	-	
5. Involvement: Advocacy	.64***	.61***	.65***	.69***	-

* $p < .05$. ** $p < .01$. *** $p < .001$.

dimensions of school counselors' perceptions: "fairness in meeting the needs of GT students" (positively skewed) and "rationale for meeting the needs of GT students" (negatively skewed). Although highly skewed, these variables demonstrated fairly normal distributions. It was determined that these variables did not have to be transformed, due to the large sample size. In such cases, the impact of non-normality and kurtosis tends to diminish. In addition, the assumptions underlying the regression model were assessed. An examination of the scatterplot of standardized residuals against standardized predicted values to test the homoscedasticity assumption did not reveal any pattern that would suggest that the variability of the residuals was different over the range of predicted values. An examination of the p-p plot of standardized residuals indicated satisfactory presence of the linearity and normality assumptions required for a valid regression analysis.

The results of the regression analyses, presented in Tables 8, 9, and 10, indicated that general GT knowledge seemed to predict all three dimensions of school counselors' reported involvement with gifted and talented students ($p < .05$). In addition, identification knowledge, while not predictive of two dimensions of reported involvement, significantly predicted reported advocacy ($P < .05$).

Research Question Number Three:

Relationship between School Counselors' Perceptions of Gifted and Talented Students and Their Involvement with Such Students

Table 11 contains the Pearson's Product-Moment correlations that were computed to determine whether a relationship was detected between the nine dimensions underly-

Table 8

Regression Summary for Relationship between Involvement (Professional Development) and Knowledge and Perceptions (N = 260)

Predictor variable	*B*	*SEB*	*B*	R^2
General GT Knowledge	.64	.06	.65***	.47
ID Knowledge	-.01	.06	-.01	
At risk Academic and Social Characteristics	.02	.05	.03	
Understanding GT Students	.02	.05	.02	
Counseling GT Students	.09	.05	.09	
Fairness in Meeting Needs of GT Students	.01	.07	.00	
Rationale for Meeting Needs	.00	.05	.00	
Unique Characteristics	-.08	.05	-.08	
Adjustment	-.06	.05	-.06	
"Fitting in" of GT Students	.00	.05	.00	
Time Constraints for Meeting Needs	.01	.05	.02	

Note. N < reflects missing data.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 9

Regression Summary for Relationship between Involvement (Counseling) and Knowledge and Perceptions (N = 252)

Predictor variable	*B*	*SEB*	*B*	R^2
General GT Knowledge	.47	.06	.47***	.44
ID Knowledge	.11	.06	.11	
At risk Academic and Social Characteristics	-.02	.06	-.02	
Understanding GT Students	-.06	.05	-.06	
Counseling GT Students	.22	.06	.22***	
Fairness in Meeting Needs of GT Students	.07	.08	.05	
Rationale for Meeting Needs	.05	.05	.05	
Unique Characteristics	-.04	.06	-.04	
Adjustment	-.02	.06	-.02	
"Fitting in" of GT Students	-.06	.05	-.05	
Time Constraints for Meeting Needs	.11	.05	.11*	

Note. N < reflects missing data.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 10

Regression Summary for Relationship between Involvement (Advocacy) and Knowledge and Perceptions (N = 267)

Predictor variable	*B*	*SEB*	*B*	R^2
General GT Knowledge	.38	.05	.37***	.54
ID Knowledge	.37	.05	.37***	
At risk Academic and Social Characteristics	-.01	.05	-.01	
Understanding GT Students	.00	.05	.00	
Counseling GT Students	.16	.05	.16**	
Fairness in Meeting Needs of GT Students	-.07	.07	-.05	
Rationale for Meeting Needs	.04	.05	.04	
Unique Characteristics	-.04	.05	-.04	
Adjustment	-.01	.05	-.01	
"Fitting in" of GT Students	-.02	.05	-.02	
Time Constraints for Meeting Needs	.04	.04	.04	

Note. N < reflects missing data.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 11

Intercorrelations for the Twelve Components Derived from the Involvement and Perceptions Items

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Involvement: Professional Development	-											
2. Involvement: Counseling & Consultation	.65***	-										
3. Involvement: Advocacy	.65***	.69***	-									
4. At-risk Academic and Social Characteristics	.09	.08	.03	-								
5. Understanding GT Students	.11	.07	.13*	.25***	-							
6. Counseling GT Students	.33***	.40***	.38***	.17**	.26***	-						
7. Fairness in Meeting Needs of GT Students	-.03	.00	.00	-.10	.06	-.09	-					
8. Rationale for Meeting Needs	.14*	.12*	.12*	.27***	.25***	.21***	.05	-				
9. Unique Characteristics	.04	.04	.05	.21***	.32***	.16**	.09	.25***	-			

(Table 11 continued)

Intercorrelations for the Twelve Components Derived from the Involvement and Perceptions Items

Variable	1	2	3	4	5	6	7	8	9	10	11	12
10. Adjustment	-.05	-.03	-.01	.34***	.18**	-.02	-.04	.18**	.01	-		
11. "Fitting in" of GT Students	.05	-.03	.03	.09	.18**	.08	.05	.17**	.31***	-.09	-	
12. Time Constraints for Meeting Needs	-.02	.07	.00	.00	.09	.05	.08	.06	.10	-.05	.13*	-

* $p < .05$. ** $p < .01$. *** $p < .001$.

ing school counselors' perceptions of gifted and talented students and the three dimensions underlying school counselors' involvement with these students. Correlations between the three dimensions of involvement and the nine dimensions of perceptions ranged from .001 to .40. Only seven of the correlations were reported to be statistically significant. The strongest correlations were found between school counselors' perceptions of counseling gifted and talented students and each of the three dimensions of reported involvement ($r = .33$; $r = .40$, and $r = .38$, $p < .01$). In addition, counselors' perceptions concerning the rationale for meeting the needs of gifted and talented students also significantly correlated with each of the three dimensions of involvement ($r = .14$; $r = .12$; $r = .12$, $p<.05$). The remaining significant correlation was found between school counselors' perceptions of understanding gifted and talented students and reported advocacy ($r = .13$, $p < .05$).

Linear regression analyses were conducted to determine whether school counselors' involvement with gifted and talented students can be predicted by school counselors' perceptions. Tables 8, 9, and 10 present the results of the regression analyses, which indicate the limited predictive value of school counselors' perceptions as reported on this survey and their involvement with gifted and talented students. Evidence is seen that school counselors' perceptions of counseling gifted and talented students as well as their perceptions of time constraints for meeting needs of gifted and talented students tended to predict the dimension of reported involvement that pertains to counseling, consultation, and referral of gifted and talented students and their families ($p < .05$). In addition, school counselors' perceptions of counseling gifted and talented students appeared to predict reported advocacy ($p < .05$).

Research Question Number Four:

Demographic Variables and School Counselors' Knowledge, Perceptions, and Involvement Concerning Gifted and Talented Students

In order to determine whether school counselors' knowledge, perceptions, and involvement concerning gifted and talented students differed significantly across demographic variables, analysis of variance was employed.

Number of Years as a School Counselor

ANOVA was computed to determine if group differences existed among those school counselors who reported having worked 1-5 years, 6-10 years, 11-15 years, 16-20 years, and over 20 years on their knowledge and perceptions of, and involvement with gifted and talented students. There were 51 counselors with 1-5 years of experience, 81 counselors with 6-10 years, 82 counselors with 11-15 years, 42 counselors with 16-20 years, and 64 counselors with over 20 years. Significant differences were found involving years of experience and all dimensions of knowledge of, and involvement with gifted and talented students. See Table 12 for these differences. Specifically, school counselors with 16-20 years of experience, as well as those with over 20 years of experience, reported more general GT knowledge than did school counselors with 6-10 years. In addition, these highly experienced counselors reported more identification knowledge than did school counselors with 1-5 years of experience. Similar findings, with minor variations, were found for all three dimensions of involvement.

Table 12

One-Way ANOVAs for Years of Experience

Variable	df	*F*
Involvement: Professional Development	*4, 303*	6.10***
Involvement: Counseling & Consultation	*4, 296*	3.99**
Involvement: Advocacy	*4, 314*	6.24***
General GT Knowledge	*4, 300*	7.41***
ID Knowledge	*4, 309*	6.76***
At-risk Academic and Social Characteristics	*4, 312*	.65
Understanding GT Students	*4, 309*	1.25
Counseling GT Students	*4, 306*	.98
Fairness in Meeting Needs of GT Students	*4, 311*	1.03
Rationale for Meeting Needs	*4, 308*	.65
Unique Characteristics	*4, 309*	.40
Adjustment	*4, 309*	1.42
"Fitting in" of GT Students	*4, 312*	.35
Time Constraints for Meeting Needs	*4, 311*	2.10

* $p < .05$. ** $p < .01$. *** $p < .001$.

School Setting

ANOVA was computed to determine if group differences existed among those school counselors who reported working in elementary, middle, and high schools. There were 116 elementary school counselors, 122 middle/junior high school counselors, and 46 high school counselors. (30 school counselors reported that they worked in combination middle/junior/senior high schools.) See Table 13 for the statistically significant differences that were found involving school setting and both dimensions of knowledge and two dimensions of involvement (counseling, consultation, and referral, and advocacy). Specifically, middle school counselors reported significantly more involvement (counseling, consultation, and referral of GT students and their families) than either elementary school counselors or high school counselors. Elementary school counselors reported significantly higher advocacy than both middle school counselors and high school counselors. Middle school counselors reported more general GT knowledge than high school counselors. Both elementary and middle school counselors reported more identification knowledge than did high school counselors.

Percentage of Students Receiving Free or Reduced Lunch

ANOVA was conducted to determine if group differences existed among counselors working in schools with varying percentages of students receiving free or reduced lunch. There were 147 counselors who reported working in schools with 20% or less free or reduced lunch, 96 in schools with 21-50% free or reduced lunch, and 64 in schools with over 50% free or reduced lunch. Statistically significant differences were found involving the percentage of students receiving free or reduced lunch and two dimensions of

Table 13

One-Way ANOVAs for School Setting

Variable	**df**	***F***
Involvement: Professional Development	*2, 272*	1.52
Involvement: Counseling & Consultation	*2, 262*	18.07***
Involvement: Advocacy	*2, 280*	12.23***
General GT Knowledge	*2, 268*	5.64**
ID Knowledge	*2, 276*	19.35***
At-risk Academic and Social Characteristics	*2, 279*	2.43
Understanding GT Students	*2, 275*	.12
Counseling GT Students	*2, 275*	.69
Fairness in Meeting Needs of GT Students	*2, 277*	.21
Rationale for Meeting Needs	*2, 275*	3.97*
Unique Characteristics	*2, 275*	.69
Adjustment	*2, 275*	.06
"Fitting in" of GT Students	*2, 278*	.96
Time Constraints for Meeting Needs	*2, 277*	3.80*

* $p < .05$. ** $p < .01$. *** $p < .001$.

involvement. Specifically, school counselors who worked in schools with over 50% of students receiving free or reduced lunch reported less involvement (counseling, consultation, and referral of gifted and talented students and their families, as well as advocacy) than did counselors working in schools with a lower percentage of students receiving free and reduced lunch (See Table 14).

Type of School

ANOVA could not be computed because the overwhelming number of respondents reported that they worked in public schools (n=289).

Gender

ANOVA was computed to examine if group differences existed between males and females. There were 26 male school counselors and 274 female school counselors. Because of the gender imbalance of the sample, the differences between the groups could not be interpreted with confidence. However, it was found that a statistically significant number of males disagreed more than females regarding certain "negative" perceptions concerning gifted and talented students. In addition, males reported more favorable perceptions of gifted and talented behaviors that may cause interpersonal difficulties with adults and peers than did females (See Table 15).

Highest Level Attained

ANOVA could not be computed because the overwhelming number of respondents reported that they held M.S., M.A., or M.Ed. degrees (n=302).

Table 14

One-Way ANOVAs for Free and Reduced Lunch

Variable	**df**	***F***
Involvement: Professional Development	*2, 305*	1.15
Involvement: Counseling & Consultation	*2, 298*	4.42*
Involvement: Advocacy	*2, 316*	3.99*
General GT Knowledge	*2, 302*	2.29
ID Knowledge	*2, 311*	1.15
At-risk Academic and Social Characteristics	*2, 314*	.69
Understanding GT Students	*2, 311*	1.58
Counseling GT Students	*2, 308*	.21
Fairness in Meeting Needs of GT Students	*2, 313*	.41
Rationale for Meeting Needs	*2, 310*	.44
Unique Characteristics	*2, 311*	.65
Adjustment	*2, 311*	.53
"Fitting in" of GT Students	*2, 314*	.25
Time Constraints for Meeting Needs	*2, 313*	.02

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 15

One-Way ANOVAs for Gender

Variable	df	*F*
Involvement: Professional Development	*1, 306*	1.37
Involvement: Counseling & Consultation	*1, 299*	.361
Involvement: Advocacy	*1, 317*	1.88
General GT Knowledge	*1, 303*	3.78
ID Knowledge	*1, 312*	3.04
At-risk Academic and Social Characteristics	*1, 315*	6.60*
Understanding GT Students	*1, 312*	3.44
Counseling GT Students	*1, 309*	1.34
Fairness in Meeting Needs of GT Students	*1, 314*	1.00
Rationale for Meeting Needs	*1, 311*	.49
Unique Characteristics	*1, 312*	17.27***
Adjustment	*1, 312*	1.47
"Fitting in" of GT Students	*1, 315*	1.14
Time Constraints for Meeting Needs	*1, 311*	2.93

* $p < .05$. ** $p < .01$. *** $p < .001$.

Accreditation of Graduate Program

ANOVA was computed to examine if group differences existed between school counselors who reported graduating from a CACREP or non-CACREP accredited program, or who reported they did not know the accreditation of their program. No statistically significant differences were found.

Ethnic Background

ANOVA could not be computed because the overwhelming number of respondents reported their ethnic background as White (n=298).

Number of Counselors in the School

ANOVA was computed to examine if group differences existed between school counselors who reported 1, 2-3, or 4 or more counselors in their school. There were 140 school counselors who reported there was only 1 counselor in their school, 137 who reported 2-3 counselors, and 43 who reported 4 or more counselors in their school. A statistically significant difference was found for one dimension of perceptions. Specifically, school counselors who reported the presence of only one counselor at their school reported higher means for one dimension of perceptions (the adjustment of GT students)(see Table 16).

Training in GT Programming

ANOVA was computed to examine if group differences existed between school counselors who reported having received no training, 1-8 hours of training, or 8-40 hours of training. There were 126 counselors who reported no training, 138 who reported 1-8

Table 16

One-Way ANOVAs for Number of Counselors in School

Variable	df	*F*
Involvement: Professional Development	*2, 305*	.63
Involvement: Counseling & Consultation	*2, 298*	2.62
Involvement: Advocacy	*2, 316*	.85
General GT Knowledge	*2, 302*	1.33
ID Knowledge	*2, 311*	2.65
At-risk Academic and Social Characteristics	*2, 314*	1.08
Understanding GT Students	*2, 311*	.40
Counseling GT Students	*2, 308*	2.04
Fairness in Meeting Needs of GT Students	*2, 313*	1.25
Rationale for Meeting Needs	*2, 310*	1.09
Unique Characteristics	*2, 311*	1.90
Adjustment	*2, 311*	4.04*
"Fitting in" of GT Students	*2, 314*	1.83
Time Constraints for Meeting Needs	*2, 313*	.29

* $p < .05$. ** $p < .01$. *** $p < .001$.

hours of training, and 43 who reported 8-40 hours. Statistically significant differences were found for both dimensions of knowledge, all three dimensions of involvement, and for one dimension of perceptions (counseling GT students). Specifically, school counselors who reported more training in GT programming reported higher knowledge of, and involvement with gifted and talented students. Counselors with 8-40 hours of training reported higher means for one dimension of perceptions (counseling GT students) (see Table 17). It should be noted that many counselors included written comments concerning gifted and talented training such as "More professional development is required on the high school level" and "I would like to have more counselor training information."

Place Where Training Occurred

ANOVA could not be computed to examine if group differences existed on the basis of where GT training occurred, due to the large number of responses that did not seem to fit any of the categories presented. However, most of the training seemed to have taken place during in-service work (n=102), graduate school (n=32), or a combination of both (n=29).

Presence of a GT Program in School

ANOVA was conducted to determine if group differences existed among school counselors who reported there was a GT program in their school. There were 230 counselors who reported such a program, and 87 who said there was no such program in their school. The statistically significant differences that were reported for all dimensions of knowledge and involvement, as well as one dimension of perceptions (counseling GT

Table 17

One-Way ANOVAs for Hours of Training

Variable	df	*F*
Involvement: Professional Development	*2, 292*	31.26***
Involvement: Counseling & Consultation	*2, 286*	14.62***
Involvement: Advocacy	*2, 303*	26.23***
General GT Knowledge	*2, 291*	50.49***
ID Knowledge	*2, 298*	18.35***
At-risk Academic and Social Characteristics	*2, 301*	.86
Understanding GT Students	*2, 298*	1.47
Counseling GT Students	*2, 295*	7.15**
Fairness in Meeting Needs of GT Students	*2, 300*	.74
Rationale for Meeting Needs	*2, 297*	3.2*
Unique Characteristics	*2, 298*	.36
Adjustment	*2, 298*	.63
"Fitting in" of GT Students	*2, 301*	4.71*
Time Constraints for Meeting Needs	*2, 300*	.02

* $p < .05$. ** $p < .01$. *** $p < .001$.

students) are presented in Table 18. In all cases, school counselors reporting the presence of a GT program in their school reported more knowledge of and more involvement with gifted and talented students.

Percentage of Case Load GT

ANOVA could not be conducted to determine if group differences existed among school counselors on the basis of their reported percentage of students in their case load who are considered gifted and talented. ANOVA is an inappropriate statistical procedure for a continuous variable such as this. However, there were 136 respondents who reported they did not know this percentage. There were 72 respondents who reported 1-5%, 34 who reported 6-10%, 27 who reported 11-20%, and 16 who reported 21-50%. There were 11 respondents who reported less than 1%, and 3 who reported 100%.

Presence of a GT Specialist in the School

ANOVA was conducted to determine if group differences existed between school counselors who reported the presence of a GT specialist in their school, and those who did not. There were 175 counselors who reported there was a GT specialist at their school, and 141 who said there was not a GT specialist at their school. See Table 19 for the statistically significant results that were reported for all dimensions of both knowledge and involvement as well as three dimensions of perceptions (understanding GT students, counseling GT students, and rationale for meeting needs of GT students). It appeared that school counselors working in schools where there was a GT specialist reported higher knowledge of, and involvement with gifted and talented students.

Table 18

One-Way ANOVAs for GT Program in School

Variable	df	*F*
Involvement: Professional Development	*1, 303*	22.49***
Involvement: Counseling & Consultation	*1, 296*	30.05***
Involvement: Advocacy	*1, 314*	56.51***
General GT Knowledge	*1, 300*	24.51***
ID Knowledge	*1, 309*	151.56***
At-risk Academic and Social Characteristics	*1, 312*	1.05
Understanding GT Students	*1, 309*	2.81
Counseling GT Students	*1, 306*	17.71***
Fairness in Meeting Needs of GT Students	*1, 311*	.20
Rationale for Meeting Needs	*1, 308*	.36
Unique Characteristics	*1, 309*	1.42
Adjustment	*1, 309*	3.56
"Fitting in" of GT Students	*1, 312*	.09
Time Constraints for Meeting Needs	*1, 311*	.89

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 19

One-Way ANOVAs for GT Specialist in School

Variable	df	*F*
Involvement: Professional Development	*1, 302*	8.29**
Involvement: Counseling & Consultation	*1, 296*	7.37**
Involvement: Advocacy	*1, 313*	27.27***
General GT Knowledge	*1, 299*	9.85**
ID Knowledge	*1, 308*	69.92***
At-risk Academic and Social Characteristics	*1, 312*	1.07
Understanding GT Students	*1, 308*	4.15*
Counseling GT Students	*1, 305*	11.14**
Fairness in Meeting Needs of GT Students	*1, 310*	.05
Rationale for Meeting Needs	*1, 307*	5.98*
Unique Characteristics	*1, 309*	2.50
Adjustment	*1, 311*	2.77
"Fitting in" of GT Students	*1, 311*	.05
Time Constraints for Meeting Needs	*1, 311*	.51

* $p < .05$. ** $p < .01$. *** $p < .001$.

However, many of the respondents included written comments concerning this question, such as “GT kids are considered ‘hands off’ in my district—their needs should be met by the specialists, though I want more collaboration;” “Because we have a specialist and I serve 700 students, I am often left out of the loop,” and “I rely on the GT specialists to keep me posted so I can better serve my GT students.”

Descriptive Analyses

Table 20 presents the means and standard deviations for each of the items on Parts II, III, and IV of the survey in order to describe school counselors’ knowledge and

Table 20

Means and Standard Deviations of Survey Items

Survey Item	Mean	Std. Deviation
KNOWLEDGE		
I am knowledgeable about		
1. the most widely used definitions of GT.	3.31	1.04
2. the historical context of counseling GT students.	2.52	1.07
3. the differentiated personality characteristics of GT students.	3.25	1.09
4. effective intervention strategies for personal issues of GT students.	3.07	1.08
5. myths about GT students.	3.19	1.10
6. research concerning the counseling needs of GT students.	2.59	1.07
7. the range of individual differences among GT students.	3.25	1.08
8. the process for identifying GT students in your district.	3.76	1.24
9. how one determines if a particular student has been identified as GT.	3.80	1.26
10.developmental counseling approaches when counseling GT students.	2.92	1.06
11. remedial counseling approaches when counseling GT students.	2.70	1.02
12. the unique academic counseling needs of GT students.	3.10	1.05
13. the impact of perfectionism on academic choices of GT students.	3.39	1.13
14. the impact of multipotentiality on academic choices of GT students.	2.73	1.21
15. the remedial reading needs experienced by some GT students.	2.61	1.07
16. the remedial study skills needs experienced by some GT students.	2.88	1.12
17. possible underlying causes for underachievement of GT students.	3.20	1.02
18. the unique social-emotional counseling needs of GT students.	3.24	1.09
19. the impact of perfectionism on the self-esteem of GT students.	3.49	1.03
20. the impact of others' expectations on the choices of GT students.	3.45	1.01
21. the behaviors of GT students in a heterogeneous classroom.	3.24	1.07
22. the "negative" feelings experienced by many GT students.	3.34	1.09
23. the impact of a heightened sensitivity on the emotional development of GT students.	3.11	1.10
24. the unique career development needs of GT students.	3.01	1.16
25. the impact of multipotentiality on the career choices of GT students.	2.79	1.14
26. the impact of perfectionism on the career choices of GT students.	2.99	1.12
PERCEPTIONS		
1. Most GT students are well-adjusted in general.	4.79	.82
2. The degree to which GT students are well-adjusted is consistent throughout schooling.	2.42	.81
3. There is a sizable number of GT students who are academically at risk.	3.38	.94
4. There is a sizable number of GT students who are psychologically at risk.	3.72	.84
5. GT students are prone to suicide in greater numbers than their non-GT peers.	3.26	.83
6. GT students are often socially rejected by their non-GT peers.	3.63	.92
7. GT students are often bored in the classroom.	3.87	.83
8. GT students will rise to the top on their own.	2.43	.80
9. GT students are eccentric and kind of peculiar.	2.36	.77
10. When it comes to being sensitive to the social needs of non-GT peers, GT demonstrate this attitude.	2.75	.85
11. Because of their extensive vocabulary, GT students may be		

Table 20 (continued)

Means and Standard Deviations of Survey Items

Survey Item	Mean	Std. Deviation
PERCEPTIONS (continued)		
viewed as an intellectual threat by teachers.	3.22	.97
12. GT students are argumentative.	2.92	.90
13. GT students have a low tolerance for ambiguity and tend to see things as right or wrong.	2.93	.86
14. GT students have a heightened sense of justice.	3.44	.78
15. Counselors need knowledge in both counseling and in GT education to be effective with GT students.	4.23	.69
16. GT students in need of special counseling services should seek them outside the school.	2.66	.95
17. Working with GT students is an added responsibility.	2.58	1.08
18. GT students of color may manifest their giftedness and talent in ways that do not match non-minority students.	3.48	.83
19. Providing for the needs of GT students creates a snobbish elite.	2.05	.80
20. Providing for the needs of GT students fits in with the ideals of our democratic way of life.	4.04	2.49
21. GT students may experience certain kinds of issues that are unique to them because of their unique characteristics.	4.09	.64
22. GT students excel in most areas of life.	2.66	.81
23. GT students have higher self-concepts in the academic arena than in the interpersonal arena.	3.44	.82
24. I enjoy counseling GT students.	4.10	.65
25. It is difficult to be gifted and talented, especially for teenagers.	3.73	.90
26. GT students require differentiated counseling due to their atypical developmental needs.	3.42	.82
INVOLVEMENT		
1. Assisting in the identification of GT students	2.96	1.42
2. Advocating for GT students by assisting with their individual progress through appropriate school experiences	3.20	1.07
3. Working with teachers, principals, and other staff to foster a better school climate for GT students	3.12	1.12
4. Consulting with other school professionals regarding problems and needs of individual GT students	3.14	1.11
5. Providing individual counseling for GT students, as warranted, based on the understanding of their unique needs	3.23	1.07
6. Encouraging GT students to take rigorous and challenging classes commensurate with their ability level	3.36	1.34
7. Referring GT students for academic support, as needed	3.13	1.11
8. Referring GT students for emotional support, as needed	3.34	1.04
9. Conducting workshops for GT students concerning such topics as time management and test anxiety	1.96	1.04
10. Providing group counseling, as warranted, based on an understanding of their unique needs	1.99	1.08
11. Providing family counseling for GT students and their families, as warranted, based on an understanding of their unique needs	1.93	1.02
12. Consulting, as needed, with parents of the gifted	3.14	1.65
13. Establishing parent education services that focus on the needs of		

Table 20 (continued)

Means and Standard Deviations of Survey Items

Survey Item	Mean	Std. Deviation
INVOLVEMENT (continued)		
GT children, such as information sessions and group discussions	1.72	.90
14. Engaging in professional development activities through which knowledge and skills in the area of programming for the needs of GT students are regularly upgraded	2.19	1.04
15. Providing leadership in the establishment of training and awareness programs concerning GT students to administrators and staff	1.78	.94
16. Providing an information clearinghouse for outside resources that could benefit GT students, including human resources (role models and mentors) and material resources (libraries and universities)	2.14	1.12
17. Evaluating and assessing the strengths and weaknesses of the school counseling program for GT students	2.18	1.08

perceptions of gifted and talented students, as well as their level of involvement with these students.

CHAPTER 5: DISCUSSION

This chapter will present an overview of the major findings of the study in light of existing literature and research. It will also focus on the limitations of the study, as well as implications of the findings for school counselors, for counselor education, and for future research.

Major Findings in Light of Existing Literature and Research

Purpose of the Study

The purpose of this study was to explore school counselors' knowledge and perceptions of gifted and talented students, and to study whether these variables influenced their involvement with such students. As this was the first study of its kind and exploratory in nature, no hypotheses were made at the start. Indeed, very little is known about what school counselors know and believe about gifted and talented students, nor how often and in what capacities they are involved with these students. Because gifted and talented education is such a controversial field, and because school counselors work directly with gifted and talented students, this information seemed of particular importance.

Examination of Major Findings

Dimensions Underlying Knowledge, Perceptions, and Involvement

In order to make more sense of school counselors' knowledge and perceptions of, and involvement with gifted and talented students, this study sought to identify the dimensions underlying these constructs. Indeed, the review of the professional literature

concerning these constructs indicated a multitude of differing viewpoints, especially when it came to perceptions about gifted and talented students. Moreover, there was not even a clear consensus on how "gifted and talented" should be defined, although most states employ some variation of the Federal definition (Cassidy & Hossler, 1992).

There were found to be multiple dimensions underlying school counselors' knowledge and perceptions of, and involvement with gifted and talented students. The principal components analyses conducted on the survey items revealed two dimensions of knowledge, which were termed "general GT knowledge" and "identification knowledge." The first component accounted for an overwhelmingly larger share of the variance (66.02%), and consisted of 24 items that included most of the topics suggested by the professional literature. The second component, "identification knowledge," only accounted for 5.70% of the item variance, and only contained two items regarding the process of identifying gifted and talented students. What is noteworthy is that the identification process emerged out of a multitude of topics to be a dimension of knowledge on its own. It could be hypothesized that school counselors view identification of the gifted and talented as a function in which they are already involved or should be involved. This hypothesis is in keeping with the professional literature that has associated school counselors with the identification process of gifted and talented students since the 1980's when Walker (1982) identified the area of dealing with data to provide for appraisal of gifted and talented students as a counselor competency not to be overlooked. VanTassel-Baska (1990) wrote that counselors should serve as initiators in the identification process of these students. Moreover, Deiulio (1984) urged school counselors to be knowledgeable about the limitations of tests used to identify the gifted

and talented. More recently, while not writing directly about gifted and talented students, others have written about ways in which school counselors can make a huge difference in promoting equity and social justice for all students, as well as providing them access to a quality education and a quality life (Hanson & Stone, 2002). Too often school counselors find themselves functioning as gatekeepers, rather than as advocates for all students (House & Hayes, 2002). School counselors should involve themselves in the identification process of the gifted and talented because they are in key positions to help overcome barriers to achievement for gifted and talented economically disadvantaged and minority students who are typically underrepresented in programs for the gifted and talented (Reichert, 1997; Renzulli & Reis, 1997). Future studies could focus specifically on the role of school counselors in the identification process, particularly in the identification of underrepresented groups of students.

The principal components analyses conducted on the survey items dealing with school counselors' perceptions of gifted and talented suggested nine dimensions. However, the process of extracting these components proved to be extremely difficult. Although many components emerged, the items contained in some of them did not seem to hold together well or were interpretable as a specific dimension. Many items had similar structure coefficients for different components. In the end, it was decided to proceed with the nine dimensions, despite the fact that many of them only consisted of a few items, and despite some of the dimensions' poor measures of internal consistency estimates of reliability. This decision was made because of the exploratory nature of this study, and because the nine dimensions allowed for a way to talk about school counselors' perceptions of gifted and talented students in a more meaningful way than

could have been done if this construct were considered to be unidimensional. In a future study, school counselors' perceptions of gifted and talented students could be further analyzed for dimensions underlying these perceptions. Care should be taken to structure the items in such a way that responses could be classified as "favorable" or “unfavorable," and would provide a clearer picture as to whether these responses might translate into more or less counselor involvement in working with gifted and talented students.

The nine interpretable dimensions underlying school counselors' perceptions of gifted and talented students were named as follows: "at-risk academic and social-emotional characteristics of GT students," "understanding GT students," "counseling GT students," "fairness in meeting needs of GT students," "rationale for meeting needs of GT students," "unique characteristics of GT students," "adjustment of GT students," "’fitting in’" of GT students," and "time constraints for meeting needs of GT students." The first component seemed the most robust, accounting for 14.60% of the variance of the 26 items pertaining to perceptions, and demonstrating the highest coefficient alpha (.71) for any of the dimensions of perceptions.

For the component termed "understanding GT students," the third item ("GT students may experience certain kinds of issues that are unique to them because of their unique characteristics") seemed to fit almost equally well in both this component and the "counseling GT students" one that followed. If this instrument were to be used for a future study, this item should be reworded to be more specific about which kinds of issues are unique to gifted and talented students.

For the next component, "counseling GT students," the emphasis seemed to fall on the role of the counselor rather than the student. In some ways, most of these items addressed the heart of this study—what school counselors believe and feel about counseling gifted and talented students. However, one of the three items stood out by its focus on the student: "When it comes to being sensitive to the social needs of non-GT peers, GT demonstrate this attitude." Future research could investigate whether these same three items loaded onto the same component, and, if so, what they might have in common.

One of the two items on the "fairness" component, "Most GT students are well-adjusted in general," seemed to also be able to load on the seventh component ("adjustment of GT students"). Indeed, it might be questioned why this item did not load more strongly onto this other component whose name mirrors the content of this item. Perhaps, in future research, this item could be reworded to include what is meant by "in general."

For the "rationale for meeting needs of GT students" component, there seemed to be some overlap with the "fairness" component. Indeed, originally the name of the "fairness" component included the word "rationale."

Items on the component dealing with the unique characteristics of gifted and talented students seemed to hold together better than items on some of the other components. (The coefficient alpha for this component was .50.) Perhaps the specificity of the characteristics mentioned in these items accounted for this component being more robust than some of the others.

The items on the component termed "adjustment of GT students" illustrate the difficulties of using items whose responses do not directly translate into more or less school counselor involvement with these students. One item, "GT students will rise to the top," seems to be related to the other item on this scale, "GT students excel in most areas of life." Both items seem to relate to the third item, "The degree to which GT students are well adjusted is consistent throughout their years of schooling." (Indeed, the coefficient alpha was reported to be .50.) However, it is unclear if school counselors who strongly agree with these statements will tend to be more involved, or less involved with their gifted and talented students. Some would argue that if school counselors believe that gifted and talented students will rise to the top, they would also believe that these students do not require interventions to help them achieve. Others would argue that if school counselors believe that gifted and talented students will rise to the top, this belief is not inconsistent with them believing that gifted and talented students may require interventions to help them achieve. Future research could examine the subtleties of these perceptions, and how they relate to involvement.

The two items contained in the "'fitting in'" component are illustrative of another problem with the wording of several of the questions dealing with counselor perceptions. These items were as follows: "GT students are eccentric and kind of peculiar" and "GT students have higher self-concepts in the academic arena than in the interpersonal arena." Several of the respondents wrote comments that indicated that they believed "some" students displayed the descriptions in these two items. Some respondents felt so strongly about the need for the word "some" that they did not respond to the item.

The last component was the most difficult to name. It contained the items "GT students in need of special counseling services should seek them outside the school" and "Working with GT students is an added responsibility." Some respondents felt the term "special" was too vague. Some commented that any student in need of "special" counseling services should seek them outside the school. The alpha coefficient for these two items was .18, a poor measure of internal consistency. In some ways, these two items held together in the sense that they both seemed to address the perception that working with gifted and talented students might be seen as an extra responsibility by school counselors. However, these items might have less in common if one interpreted the first item as a perception of the need for referral in order to better meet the needs of gifted and talented students, rather than a way to avoid counseling these students. In future research, these two items should be more carefully worded so that responses to them could be better interpreted.

It is hard to compare the dimensions underlying the perceptions of school counselors of gifted and talented students to what has been said in the professional literature because of the dearth of recent research undertaken in this area. Moreover, further research needs to be done to attempt to make the dimensions identified in this study more robust.

The principal components analyses conducted on the survey items dealing with school counselors' involvement with gifted and talented students revealed three dimensions. These dimensions were named "professional development and support services to GT students and their families," "counseling, consultation, and referral of GT students and their families," and "advocacy." The first component accounted for the largest share of the item variance (49.00%), and consisted of 8 items. Only one item directly dealt with

the professional development of counselors ("Engaging in professional development activities through which knowledge and skills in the area of programming for the needs of GT students are regularly upgraded"). Another item touched on professional development, but was written from the point of view of counselors providing professional development in gifted and talented issues for administrators and staff ("Providing leadership in the establishment of training and awareness programs concerning GT students to administrators and staff"). This component seemed to contain more items that dealt with indirect support of gifted and talented students than did the second component, "counseling, consultation, and referral of GT students and their families," but the distinctions between the two components at times were blurred. For example, "Providing family counseling for GT students and their families, as warranted, based on an understanding of their unique needs" loaded most strongly on the first component, but "Consulting, as needed, with parents of the gifted" loaded most strongly on the second component.

The advocacy dimension, consisting of three items, seemed the clearest. It accounted for 6.80% of the item variance, and included an item with wording that directly reflected advocacy ("Advocating for GT students by assisting with their individual progress through appropriate school experiences"). This dimension also included an item concerning counselor involvement in the identification process, which seemed to suggest that school counselors may see their role in the identification process as a way to advocate for their students. It would be very interesting for future research to focus on the advocacy role of school counselors with gifted and talented students.

The emergence of the advocacy dimension for the construct of involvement is consistent with the professional literature. Advocacy is highlighted in the ASCA position statement, "The Professional School Counselor and Gifted and Talented Student programs" (ASCA, 2001), as is the school counselor's active role in the identification process of the gifted and talented. VanTassel (1990) also observed that the school counselor should act as an advocate for gifted and talented students, helping negotiate and facilitate their individual progress through school experiences that would help them fulfill their potential. Moreover, others believed that the school counselor, in an advocacy role, should work with teachers, principals, and other staff to foster a climate conducive to the growth of the gifted and talented (Davis & Rimm, 1998), as well as to remove institutional, systemic, and personal barriers to achievement for gifted and talented economically disadvantaged students and students of color (U.S. Department of Education, 1993).

Relationship Between Knowledge and Involvement

Pearson's Product-Moment correlations provided evidence of statistically significant correlations between both dimensions of school counselors' knowledge of gifted and talented students and all three dimensions of school counselors' reported involvement with these students. In addition, the linear regression analysis indicated that general gifted and talented knowledge seemed to predict all three dimensions of school counselors' reported involvement with gifted and talented students, and that identification knowledge, while not predictive of two dimensions of reported involvement, significantly predicted reported advocacy ($p < .05$).

These findings suggested that school counselors who report that they are knowledgeable about gifted and talented students tended to report more involvement with these students, including advocacy. These findings are consistent with the professional literature that suggested that more school counselor knowledge about gifted and talented students would result in the provision of better counseling services to gifted and talented students (Colangelo, 2002; Davis & Rimm, 1998). The finding that identification knowledge significantly predicted reported advocacy is heartening, as counselors are in a unique role to advocate for equitable identification procedures that remove barriers for gifted and talented racial and ethnic minority students (Lightfoot, 2002).

Relationship Between Perceptions and Involvement

Pearson's Product-Moment correlations provided evidence of statistically significant correlations for only three dimensions of school counselor perceptions. The strongest correlations were reported between school counselors' perceptions of counseling gifted and talented students and each of the three dimensions of involvement, though the correlations themselves were not that large, ranging from $r = .33$ to $r = .40$ ($p < .01$). Much smaller correlations were reported for one dimension of school counselors' perceptions (rationale for meeting needs of GT students with each of the three dimensions of involvement, with correlations hovering around $r = .12$ ($p < .05$). The only other significant correlation was found between one dimension of perceptions (understanding GT students) and advocacy ($r = .13$, $p < .05$).

Linear regression analyses indicated limited predictive value of school counselors' perceptions as reported on this survey and their involvement with gifted and talented students. Evidence was provided that two dimensions of school counselors' perceptions

(counseling GT students and time constraints for meeting needs of GT students) tended to predict involvement (counseling, consultation, and referral of GT students and their families ($p < .05$). Additionally, school counselors' perceptions (counseling GT students) appeared to predict advocacy ($p < .05$).

Because of the difficulties involved in interpreting the dimensions of school counselors' perceptions of gifted and talented students, it was not surprising that there was not a stronger relationship reported between perceptions and involvement. Further investigation is needed to refine the wording and structure of the items dealing with perceptions to determine whether the same dimensions will reoccur across other samples. It was still interesting to note that despite the problems in the wording of some items, some dimensions of perceptions were found to be able to predict school counselor involvement with gifted and talented students. This finding makes sense in light of the fact that the dimension termed "counseling GT students" seemed to focus on how school counselors perceived their role vis-a-vis gifted and talented students. Moreover, it is important to note that this dimension of perceptions was tied to advocacy, a topic that appears to be of key importance to school counselors.

The finding that perceptions pertaining to time constraints in meeting the needs of the gifted and talented appeared to predict the dimension of counselor involvement that dealt with counseling, consultation, and referral of gifted and talented students and their families also makes intuitive sense because of the counselor role of referral. However, it is still not clear whether school counselors view referring a gifted and talented student to outside services as a strong indicator of involvement or simply as a way to get someone else to counsel them. In future research, the survey item "GT students in need of special

counseling services should seek them outside the school" would need to be reworded to make its meaning clearer to respondents.

It is difficult to judge whether these findings pertaining to perceptions and involvement are consistent with the professional literature because no research studies were found tying these two constructs. However, the findings of a relationship between perceptions and involvement are consistent with the work of Deiulio (1984) who called for training of guidance counselors to address negative attitudes which may have been due to a lack of understanding concerning gifted and talented students.

Demographic Variables and Knowledge, Perceptions, and Involvement

Multiple analyses of variance were conducted with a variety of demographic variables, and statistically significant results were found in many cases. However, because of sample characteristics, some of these findings should be viewed with extreme caution.

The finding that school counselors with the most experience tended to report the most gifted and talented knowledge seems to make sense, because many of the school counselors reported that if they had received training in gifted and talented education, it occurred during in-service workshops. The more experienced a school counselor, the more likely that he/she would have been exposed to a gifted and talented in-service workshop at some point in his/her career. No statistically significant differences were reported between years of experience and school counselors' perceptions of gifted and talented students. Although there was little attention paid to these variables in the professional literature, one study (Wiener & O'Shea, 1963) conducted at the university

level found no relationship between teachers' years of experience and their attitudes toward gifted and talented students.

The finding that high school counselors tended to report less knowledge about gifted and talented identification than counselors from the other school settings is not surprising. Typically, students are identified as gifted and talented on the elementary school level. By the time students attend high school, the distinction practically disappears between who has been "officially" identified as gifted and talented and who has not. Often, the only way one can know for certain the gifted and talented status of a particular high school student is to check past records. Moreover, because many schools have "open enrollment" policies in effect for entrance into honors and advanced-placement classes in high school, the distinction loses importance. It is also not surprising that high school counselors tended to report less general knowledge about gifted and talented students than did middle school counselors, as well as less involvement. However, these findings, though not surprising, are worrisome. High school counselors are in a key position to help students select appropriately challenging classes. Knowledge of the characteristics of gifted and talented students seems important for the registration process. It is interesting to note that no statistically significant differences were found involving school setting and any of the dimensions of school counselors' perceptions of gifted and talented students.

It should be noted that these school setting findings should be treated cautiously, as they were based on a sample that included over 100 elementary school counselors, over 100 middle school counselors, and only 46 high school counselors. These proportions are not representative of school counselors in general, and may have resulted from the 30

school counselors who reported that they worked in combination middle/junior/senior high schools. Because gifted and talented students are typically treated differently on the middle/junior high school level and the high school level, it seemed inappropriate to add these 30 counselors to one group or the other, or to create a new group called "secondary counselors."

The finding that school counselors who worked in schools with over 50% of students receiving free or reduced lunch reported less involvement with gifted and talented students seemed expected. The professional literature has established a strong link between funding and services provided to gifted and talented students. Equity issues also have been highlighted by the literature. If there is a limited amount of money to make schools better places for all students, how can it be justifiable to divert large amounts to a very small percent of the student population? Many of the respondents indicated that because of budgetary constraints, the gifted and talented program at their school had been discontinued.

Regarding gifted and talented training, it was noteworthy that school counselors who reported more training in gifted and talented programming reported higher knowledge of, and involvement with gifted and talented students. Moreover, they tended to report higher means for one dimension of perceptions (counseling gifted and talented students). These findings seem consistent with the voices in the professional literature that support the need for training of counselors who work with gifted and talented students (Colangelo, 2002; Davis & Rimm, 1998; Evans, 1997; VanTassel-Baska, 1990). However, it is unclear whether school counselors' perceptions are influenced by the fact that because there is a gifted and talented program in their school they are more knowledgeable about

gifted and talented students, or because there is a gifted and talented program in their school, they have experience working directly with these students. It should also be pointed out that there was some confusion as to what was meant by this question. Some respondents indicated "no," but wrote in the comments section that the gifted and talented students were periodically "pulled out" and sent to a different building. While technically there was not a GT program *in* the school, students were still taking part in a GT program affiliated with the school that happened to be housed somewhere else. This item should be reworded in future studies.

Regarding the percentage of school counselors' case load that consisted of gifted and talented students, it was extremely interesting to study the responses to this question. Although only 136 respondents reported they did not know this percentage, many respondents prefaced their responses with "approximately." The huge range of responses (0% to 100%) would be worthy of future research, especially in light of the professional literature that does not reach a consensus concerning how many gifted and talented students or programs exist in today's schools.

Regarding the finding that school counselors working in schools where there was a gifted and talented specialist reported higher knowledge of, and involvement with gifted and talented students, it should be noted that many respondents either did not answer this question, or responded with a "no" and indicated that there was someone who was assigned to the school but was not housed in the building (e.g. a district specialist or cluster specialist). For future studies, this question will need to be made less ambiguous. However, this finding seems to make sense because it might be expected that access to a gifted and talented specialist might lead to more knowledge.

Implications for School Counselors

This study is an important first step in exploring school counselors' knowledge and perceptions of gifted and talented students, as well as how these variables influence their involvement with such students. Because gifted and talented education has been seeped in controversy since its inception, and because it is under fire now, it is important to find out what school counselors know and believe about their gifted and talented students, as well as how involved they are with these students. It is important to make a distinction between the gifted and talented student and the gifted and talented program. Many programs, especially "pull out" programs and ability-grouping programs, serve to widen the achievement gap between poor and minority youth and their more advantaged peers. Dollars that could be spent toward meeting the needs of the majority of students are often used to maintain specialized gifted and talented programs that meet the needs of the few. This sentiment was voiced in the "comments" section of the survey by one or two of the respondents, one of whom wrote "GT students require differentiated counseling no more than any student requires it." However, while it should be the goal of every school counselor to remove barriers to achievement for all students, as well as to promote educational equity and help all students gain access to rigorous academic preparation and support, many in the professional literature argue that school counselors need expertise in understanding the nature and nurture of giftedness and talent in order to meet the counseling needs of these students as well as become knowledgeable about bias in the identification process, leading to the underrepresentation of ethnic minority students being identified as gifted and talented. This sentiment was echoed by many of the respondents of the survey as comments following the survey questions.

Although this was an exploratory study, and further research needs to be undertaken to clarify some of the findings, there are many implications for the practicing school counselor. The finding of an advocacy dimension underlying the construct of school counselors' involvement with gifted and talented suggests that counselors can use advocacy to shape the gifted and talented program in their school. Rather than just being observers of the identification process, or worse, gatekeepers, school counselors should open up the gates to those that might be overlooked in the traditional identification process. In keeping with the transformed counselor model of social justice, school counselors should become agents of equity and access to quality education for all, which, in turn, provides access to a quality life. School counselors can use advocacy to ensure that all students are considered for gifted and talented programs, and should advocate on behalf of those students who are usually overlooked, such as students who are economically disadvantaged or who come from ethnic minority backgrounds. Often these students are not identified as gifted and talented because they tend to hide their abilities in order to "fit in." Underrepresented in gifted and talented programs, they are overrepresented in special education programs. Moreover, in addition to advocating for individual students, school counselors must advocate for systemic change. To "save" one or two students who might be lost in the system is a worthy goal, but to "save" many others through massive school reform is a more powerful and lofty goal.

The statistically significant findings that school counselors' general knowledge concerning gifted and talented students seemed to predict all three dimensions of school counselors' reported involvement with these students, and that school counselors' identification knowledge seemed to predict advocacy have enormous implications for the

practicing school counselor. It would appear that the more knowledge school counselors possess concerning gifted and talented students, the more involved they will be with such students. More specifically, the more knowledge they have about the identification process, the more likely they will take on an advocate role. However, the results of this study suggest that practicing school counselors have received little training in counseling the gifted and talented. According to this survey, 39% reported no training and 43% reported only 1 – 8 hours. In order to better understand the needs of this population, school counselors should seek training in such areas as the identification process of the gifted and talented, their characteristics and possible counseling needs, as well as specific intervention strategies to address these needs. School counselors working in schools with no gifted and talented program may wish to observe such programs at a neighboring school, in order to get exposure to identified gifted and talented students. Better yet, they may wish to observe individual or group counseling sessions with such students.

The statistically significant finding that two dimensions of school counselors' perceptions concerning gifted and talented students (counseling GT and time constraints for meeting needs of GT) predicted some dimensions of involvement, including advocacy, provides evidence of the importance of understanding and knowing what these perceptions might be. Moreover, it can be assumed that these perceptions may be positively impacted by knowledge, as was proposed by Deiulio (1984) when she strongly recommended that in-service programs for guidance counselors address those attitudinal areas which reflect negative beliefs or a lack of knowledge concerning the selection procedures and programming for gifted and talented students.

The statistically significant differences among counselors from different school settings seem to have implications for practicing high school counselors. Specifically, middle school counselors reported more involvement (the dimension pertaining to counseling, consultation, and referral of GT students and their families) with gifted and talented students than did either those from the elementary or high school levels. In addition, elementary school counselors reported higher advocacy than did either middle school or high school counselors. Finally, middle school counselors reported more general gifted and talented knowledge than did high school counselors. It would appear that high school counselors tend to report less general gifted and talented knowledge as well as involvement with gifted and talented students, including advocacy, than did counselors from other school settings. Although this finding is understandable because identification of the gifted and talented usually takes place on the elementary school level and high school counselors often do not know who has been officially identified as gifted and talented unless they look through the student's cumulative record file, this finding is worrisome. High school counselors are key to helping their students select appropriately challenging honors and advanced placement classes. It is essential that high school counselors, like their elementary and middle school counterparts, be knowledgeable about identifying the gifted and talented, as well as meeting their counseling needs. Knowledge in the areas of academic choices of the gifted and talented, as well as career and college counseling, is essential.

Implications for Counselor Education

The fact that a high percentage of the sample reported minimal training in gifted and talented programming (39.4% reported no training; 43% reported only 1 – 8 hours) seems

to have considerable implications for school counselor training, since this study provided evidence that counselors who reported that they were knowledgeable about gifted and talented students tended to report more frequent involvement with these students than did those with less knowledge. Many school counselor programs on the master's level, as well as doctoral counselor education programs, do not include the study of gifted and talented students. This is not surprising, because CACREP has no standards that address competency in counseling the gifted and talented. Graduate counseling programs should address the counseling needs of the gifted and talented, as well as the identification process of these students. Students should be taught to use advocacy to ensure that all students are considered for gifted and talented programs. Students should be sensitized to the fact that the abilities of gifted and talented students from disadvantaged and minority backgrounds often go unrecognized.

This study may help lay the groundwork for designing a training model for counselor education students (as well as practicing school counselors) that addresses the development of competencies in sensitivity and awareness, knowledge, and counseling skills in working with the gifted and talented. It is a first step in gaining an understanding of the constructs of school counselors' knowledge, perceptions, and involvement regarding gifted and talented students—especially the dimension of knowledge that deals with identification, and the dimension of involvement that deals with advocacy. Indeed, training programs should be organized around the dimensions identified for knowledge, perceptions, and involvement, and material provided for each.

The finding that both of the identified dimensions of knowledge seemed to predict counselor advocacy on behalf of their gifted and talented students helps build a case that

those who aspire to become school counselors, as well as those who aspire to train school counselors, should receive gifted and talented training in order to become better advocates for gifted and talented students. Specifically, they might benefit from training concerning the identification of gifted and talented students and the ways some students "hide" their giftedness and talent in order to "fit in," as well as in defining giftedness and talent using a multidimensional definition that includes the widest areas in which abilities may lie. Moreover, through training, prospective counselors and counselor education students might become more knowledgeable about the bias in the identification process that results in educational barriers for economically disadvantaged and ethnic minority students.

The questionnaire developed for this study could be used in school counselor training and supervision in order to help students become more aware of their knowledge and perceptions concerning gifted and talented students. It could serve as the basis for classroom discussions dealing with the controversial nature of gifted and talented education, as well as a starting point for discussing how counselors can serve as advocates for their students in the gifted and talented identification process.

Finally, the findings of this study have implications for what counselor supervisors need to know about gifted and talented students in order to help their supervisees better meet the needs of this population. Specifically, the dimensions identified in this study underlying the constructs of knowledge, perceptions, and involvement regarding gifted and talented students could help supervisors develop a vocabulary that could be well suited for analyzing the interactions between their supervisees and their gifted and talented clients.

Implications for Future Research

Exploratory in nature, this study can serve as a starting point for future research that investigates school counselors' knowledge and perceptions of gifted and talented students, as well as their involvement with these students. Subsequent studies should continue to examine the dimensions underlying the constructs of school counselors' knowledge, perceptions, and involvement concerning gifted and talented students. If items from the questionnaire used in this study are included again, many should be reworded, especially in the section dealing with school counselors' perceptions, so that they clearly indicate positive or negative perceptions. These items should be worded so it is clear what a high and low score mean for an item. Future studies should attempt to add and delete items that do not "fit" particular dimensions, based on internal consistency estimates of reliability. In addition, future studies must be sure to include a more representative sample of practicing school counselors, including a higher proportion of counselors from the high school level, as well as a higher proportion of counselors from minority ethnic backgrounds. Additionally, more items should be included that focus on gifted and talented students from minority backgrounds.

Many of the respondents wrote comments on their surveys that raised issues for future surveys. Because of the willingness of the respondents to volunteer such information, it would be useful and interesting to conduct future research that allowed for more narrative commentary for many of the questionnaire items. For example, one respondent said she wrote IEP's for gifted and talented students, and another wrote "All I do is sit on a committee to decide who is 'in' and who is 'out.'"

The comments of another respondent, “I think African American boys try to hide their smartness by the time they reach middle school,” raises the great need for qualitative research on ethnic minority gifted and talented students. Because these students are extremely underrepresented in gifted and talented programs, research needs to be undertaken to explore the dimension of “understanding GT students” that was found by this study to underlie school counselors’ perceptions concerning the gifted and talented and that included the item “GT students of color may manifest their giftedness and talent in ways that do not match those of non-minority students.” Perhaps a study might be designed employing vignettes and case studies depicting gifted and talented students from diverse backgrounds and eliciting information from school counselors concerning their perceptions of these students and whether they would identify them as gifted and talented. Alternately, extensive interviews could be conducted with school counselors, teachers, administrators, and ethnic minority students themselves from both urban and non-urban settings regarding their perceptions of these students. In addition, qualitative studies might explore whether perceptions concerning the level of poverty of students correlates with the likelihood of these students being identified as gifted and talented. Other related research might focus on the social/emotional impact of being identified as gifted and talented for ethnic minority students as compared to non-minority students. Variables such as resiliency and self-concept could be included.

The dimensions of involvement seem particularly worthy of further investigation, especially the one pertaining to advocacy, since this role is key to the transformed role of school counselors as defined by school reform efforts aimed at closing the achievement gap among ethnic minority and economically disadvantaged students (Education Trust,

2003). More research is needed to explore what is meant by the survey items contained in the dimension of involvement dealing with advocacy, such as how counselors can work with teachers, principals, and other staff to foster a better school climate for gifted and talented students, as well as assist in the identification of these students. Not only would it be important to explore specific activities in which counselors should be engaged when advocating for students, but also it would be important to know if counselors are truly carrying out these activities. Moreover, it would be useful to study whether school counselors' involvement with their gifted and talented students actually resulted in improved academic achievement and other measurable outcomes, such as attendance and participation in advanced-level classes.

Limitations

There are several known limitations to the present study that might affect the validity and subsequent generalizability of the results. One is the fact that the population from which the sample was drawn was limited to those school counselors who were members of the American School Counselor Association (ASCA). This limits the generalizability of the results, since the opinions of school counselors who are members of ASCA may not be representative of school counselors who have chosen not be join ASCA. Moreover, school counselors who are members of ASCA tend to be White and female (Holcomb-McCoy, Bryan, & Rahill, 2002), as was the sample used for this study. There was such a small number of respondents who identified themselves as belonging to an ethnic background other than White that it was impossible to compare their responses with those of respondents who identified themselves as White. In addition, while the

return rate of close to 50% was acceptable, there is still the possibility of bias due to non-response which may limit the generalizability of the study.

Another limitation to this study is that the instrument employed relied on the self-reporting of the participants. Because of this methodology, response bias may have been introduced into the data due to respondents wanting to appear more knowledgeable about gifted and talented students than they really were, or to report more positive perceptions toward, and higher involvement with these students.

[UNIVERSITY OF MARYLAND LETTERHEAD]

APPENDIX A

February, 2004

Dear School Counselor:

I am writing to ask your help in a groundbreaking study to examine school counselor knowledge and perceptions concerning gifted students and their programs, as well as their involvement with such students. The information you provide will be invaluable in better meeting the needs of gifted and talented children.

You have been selected at random for this study from the national database of the American School Counseling Association (ASCA). The survey should take no longer than 15 minutes to complete. Please take the time to complete the enclosed questionnaire and return it to me within 10 days of receipt of this letter. A self-addressed, stamped return envelope has been provided for your convenience.

There are no correct or incorrect responses, and all responses will be treated confidentially. The code number on each survey is to facilitate follow-up reminders to those who have not responded. All results will be reported in group format, and will not include names, schools, or other identifying information. At the conclusion of this study, all identifying information will be disposed of.

Please understand that your participation in this study is completely voluntary and no risk is involved. Your completed survey will serve as your informed consent to participate in this study.

If you wish to see the results of this study and/or have any questions or concerns, please feel free to contact me. I look forward to working with you on this important research and thank you in advance for your participation.

Sincerely,

Nancy Naomi Carlson, Ph.D.
Director of School Counseling Services
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APPENDIX B

SURVEY OF SCHOOL COUNSELOR KNOWLEDGE, PERCEPTIONS, AND LEVEL OF INVOLVEMENT CONCERNING GIFTED AND TALENTED STUDENTS AND THEIR PROGRAMS

The purpose of this survey is to examine the knowledge and perceptions of school counselors concerning gifted and talented students and their programs. In addition, school counselors' level of involvement with gifted and talented students will be studied. For purposes of this survey, "GT" will be used interchangeably with "gifted and talented." In addition, "gifted and talented" will refer to children who give evidence of high performance capability in areas such as intellectual, creative, artistic, psycho-social, psycho-motor, or leadership capacity, or in specific academic fields, and who may require services or activities not ordinarily provided by the school in order to fully develop such capabilities.

It would be greatly appreciated if you would respond to all the items below, keeping In mind that there are no right or wrong answers, and that any information provided will be held in the strictest confidence.

Thank you for your assistance in completing this survey. Your responses will be invaluable in helping to better meet the needs of all gifted and talented students.

DEMOGRAPHIC INFORMATION

<u>Directions:</u> Please answer the following questions by checking the most appropriate response.

1. Number of years as a school counselor
   ___1-5 years
   ___6-10 years
   ___11-15 years
   ___16-20 years
   ___Over 20 years

2. School setting in which you work
   ___Elementary School
   ___Middle/Junior High School
   ___High School
   ___Other_____

3. What percentage of students at your school receive free or reduced lunch?
   ___0 %
   ___1 – 20%
   ___21-50%
   ___Over 50%

4. Type of school in which you work
   ___Public
   ___Private
   ___Charter
   ___Other

5. Gender
   ___Male
   ___Female

6. Highest level attained
   ___B.S., B.A.
   ___M.S., M.A., M.Ed.
   ___Ph.D., Ed.D.

7. At the time you completed your degree, my program was
   ___CACREP accredited
   ___Non-CACREP accredited
   ___Don't know

8. Your ethnic background
   ___Hispanic/Latino
   ___African American
   ___Asian/Pacific Islander
   ___White/European
   ___Native American
   ___Other_____

9. Number of counselors in your school
   ___1
   ___2 - 3
   ___4 - 5
   ___6 - 7
   ___8 - 9
   ___Over 10

10. How much training in GT have you received?
    ___None
    ___1 – 8 hours
    ___8 –40 hours
    ___More than 40 hours

11. If you answered anything but "none," where did training mostly occur? Check all that apply.
    ___Graduate school course
    ___Practicum/Internship
    ___In-service workshop
    ___Other_____

12. Is there a GT program in your school?
    ___Yes
    ___ No

13. What percentage of your case load is is comprised of GT students?
    ___%
    ___Don't know

14. Is there a GT specialist in your school?
    ___Yes
    ___ No

YOUR KNOWLEDGE CONCERNING GIFTED AND TALENTED STUDENTS AND THEIR PROGRAMS

<u>Directions</u>: Please circle one of the numbers in the five point scale to indicate the degree to which you are knowledgeable about each of the statements below.

1=No Knowledge 2=Little Knowledge 3=Some Knowledge 4=Knowledgeable 5=Very Knowledgeable

I am knowledgeable about

1.	the most widely used definitions of GT.	1 2 3 4 5
2.	the historical context of counseling GT students.	1 2 3 4 5
3.	the differentiated personality characteristics of GT students from the rest of the population in general.	1 2 3 4 5
4.	effective intervention strategies for personal issues of GT students.	1 2 3 4 5
5.	myths about GT students.	1 2 3 4 5
6.	research concerning the counseling needs of GT students.	1 2 3 4 5
7.	the range of individual differences among GT students.	1 2 3 4 5
8.	the process for identifying GT students in your district.	1 2 3 4 5
9.	how one determines if a particular student has been identified as GT.	1 2 3 4 5
10.	developmental counseling approaches when counseling GT students.	1 2 3 4 5
11.	remedial counseling approaches when counseling GT students.	1 2 3 4 5
12.	the unique academic counseling needs of GT students.	1 2 3 4 5
13.	the impact of perfectionism on academic choices of GT students.	1 2 3 4 5
14.	the impact of multipotentiality on academic choices of GT students.	1 2 3 4 5
15.	the remedial reading needs experienced by some GT students.	1 2 3 4 5
16.	the remedial study skills needs experienced by some GT students.	1 2 3 4 5

1=No Knowledge 2=Little Knowledge 3=Some Knowledge 4=Knowledgeable 5=Very Knowledgeable

17. possible underlying causes for underachievement of GT students. 1 2 3 4 5

18. the unique social-emotional counseling needs of GT students. 1 2 3 4 5

19. the impact of perfectionism on the self-esteem of GT students. 1 2 3 4 5

20. the impact of others' expectations on the choices of GT students. 1 2 3 4 5

21. the behaviors of GT students in a heterogeneous classroom. 1 2 3 4 5

22. the "negative" feelings experienced by many GT students. 1 2 3 4 5

23. the impact of a heightened sensitivity on the emotional development of GT students. 1 2 3 4 5

24. the unique career development needs of GT students. 1 2 3 4 5

25. the impact of multipotentiality on the career choices of GT students. 1 2 3 4 5

26. the impact of perfectionism on the career choices of GT students. 1 2 3 4 5

I. YOUR PERCEPTIONS CONCERNING GIFTED AND TALENTED STUDENTS AND THEIR PROGRAMS

<u>Directions</u>: Please circle one of the numbers in the five point scale to indicate the degree to which you agree with each of the statements below.

1 = Strongly Disagree 2 = Disagree 3= Undecided 4=Agree 5=Strongly Agree

1. Most GT students are well adjusted in general. 1 2 3 4 5

2. The degree to which GT students are well adjusted is consistent throughout their years of schooling. 1 2 3 4 5

3. There is a sizable number of GT students who are academically at risk. 1 2 3 4 5

4. There is a sizable number of GT students who are psychologically at risk. 1 2 3 4 5

5. GT students are prone to suicide in greater numbers than their non-GT peers. 1 2 3 4 5

6. GT students are often socially rejected by their non-GT peers. 1 2 3 4 5

1 = Strongly Disagree 2 = Disagree 3= Undecided 4=Agree 5=Strongly Agree

7. GT students are often bored in the classroom.	1 2 3 4 5
8. GT students will rise to the top on their own.	1 2 3 4 5
9. GT students are eccentric and kind of peculiar.	1 2 3 4 5
10. When it comes to being sensitive to the social needs of their non-GT peers, GT students demonstrate this attitude more than the reverse.	1 2 3 4 5
11. Because of their extensive vocabulary, GT students may be viewed as an intellectual threat by their teachers.	1 2 3 4 5
12. GT students are argumentative.	1 2 3 4 5
13. GT students have a low tolerance for ambiguity and tend to see things as right or wrong.	1 2 3 4 5
14. GT students have a heightened sense of justice.	1 2 3 4 5
15. Counselors need knowledge and expertise both in counseling and in GT education in order to be most effective with their GT students.	1 2 3 4 5
16. GT students in need of special counseling services should seek them outside the school.	1 2 3 4 5
17. Working with GT students is an added responsibility.	1 2 3 4 5
18. GT student of color may manifest their giftedness and talent in ways that do not match those of non-minority students.	1 2 3 4 5
19. Providing for the needs of GT students creates a snobbish elite.	1 2 3 4 5
20. Providing for the needs of GT students fits in with the ideals of our democratic way of life.	1 2 3 4 5
21. GT students may experience certain kinds of issues that are unique to them because of their unique characteristics.	1 2 3 4 5
22. GT students excel in most areas of life.	1 2 3 4 5
23. GT students have higher self-concepts in the academic arena than in the interpersonal arena.	1 2 3 4 5
24. I enjoy counseling GT students.	1 2 3 4 5

25. It is difficult to be gifted and talented, especially for teenagers. 1 2 3 4 5

26. GT students require differentiated counseling due to their atypical developmental needs. 1 2 3 4 5

YOUR LEVEL OF INVOLVEMENT WITH GIFTED AND TALENTED STUDENTS

<u>Directions</u>: Please circle one of the numbers in the five point scale to indicate how often you are involved in the activity described.

1=Never 2=Rarely 3=Occasionally 4= Fairly Often 5=Frequently

1. Assisting in the identification of GT students 1 2 3 4 5

2. Advocating for GT students by assisting with their individual progress through appropriate school experiences 1 2 3 4 5

3. Working with teachers, principals, and other staff to foster a better school climate for GT students 1 2 3 4 5

4. Consulting with other school professionals regarding problems and needs of individual GT students 1 2 3 4 5

5. Providing individual counseling for GT students, as warranted, based on the understanding of their unique needs 1 2 3 4 5

6. Encouraging GT students to take rigorous and challenging classes commensurate with their ability level 1 2 3 4 5

7. Referring GT students for academic support, as needed 1 2 3 4 5

8. Referring GT students for emotional support, as needed 1 2 3 4 5

9. Conducting workshops for GT students concerning such topics as time management and test anxiety 1 2 3 4 5

10. Providing group counseling for GT students, as warranted, based on an understanding of their unique needs 1 2 3 4 5

11. Providing family counseling for GT students and their families, as warranted, based on an understanding of their unique needs 1 2 3 4 5

12. Consulting, as needed, with parents of the gifted 1 2 3 4 5

13. Establishing parent education services that focus on the needs of

1=Never 2=Rarely 3=Occasionally 4= Fairly Often 5=Frequently

GT children, such as information sessions and group discussions 1 2 3 4 5

14. Engaging in professional development activities through which knowledge and skills in the area of programming for the needs of GT students are regularly upgraded. 1 2 3 4 5

15. Providing leadership in the establishment of training and awareness programs concerning GT students to administrators and staff 1 2 3 4 5

16. Providing an information clearinghouse for outside resources that could benefit GT students, including human resources (role models and mentors) and material resources (libraries and universities) 1 2 3 4 5

17. Evaluating and assessing the strengths and weaknesses of the school counseling program for GT students 1 2 3 4 5

PLEASE SHARE ANY OTHER INFORMATION OR COMMENTS CONCERNING

WORKING WITH GT STUDENTS

APPENDIX C

EXPERT REVIEWERS AND THEIR CREDENTIALS

Michelle Greene holds a Ph.D. in Educational Psychology with a concentration in Gifted Education from the University of Connecticut. Currently, she is completing a major research project co-funded by the SENG Foundation (Supporting the Emotional Needs of the Gifted) and the NRC/GT (The National Research Center on the Gifted and Talented). She has published articles and a chapter of a book on the gifted (NAGC), and works as a high school counselor and college instructor.

Joyce VanTassel-Baska is the Jody and Layton Smith Professor in Education and the director of the Center for Gifted Education at The College of William and Mary. She has served as a local, state, regional, and university director of gifted programs in the Midwest. She has published extensively in the education of the gifted, particularly on topics of curriculum, counseling, and the disadvantaged gifted. She is a former president of The Association for the Gifted (TAG).

APPENDIX D: GREEN TEA INCENTIVE

REFERENCES

Alreck, P.L. & Settle, R.B. (1995). The survey research handbook: Guidelines and strategies for conducting a survey. New York, NY: Irwin, Inc.

American School Counselor Association (ASCA). (2001). Position statement: The professional school counselor and gifted and talented student programs. Alexandria, VA: Author. Retrieved from http://www.schoolcounselor.org/content.cfm?L1=1000&L2=21.

American School Counselor Association (ASCA). (1992). *Ethical standards for school counselors*. Alexandria, VA: Author.

Archambault, F. X., Westberg, K. L., Brown, S. W., Hallmark, B. W., Zhang, W., & Emmons, C. L. (1993). Classroom practices used with gifted third and fourth grade students. Journal for the Education of the Gifted, 16, 103-119.

Arredondo, P., Toporek, R., Brown, S., Jones, J., Locke, D.C., Sanchez, J., & Sandler, H. (1996). Operationalization of the multicultural counseling competencies. Journal of Multicultural Counseling and Development, 24, 42-78.

Bailey, D.F., Getch, Y.Q., & Chen-Hayes, S. Professional school counselors as social and academic advocates. In B.T Erford, (Ed.), Transforming the school counseling profession (pp. 411-434). Upper Saddle River, NJ: Pearson Education, Inc.

Barbe, W.B., & Renzulli, J.S. (Eds.). (1975). Psychology and education of the gifted (2nd ed.). New York, NY: Irvington Publishers, Inc.

Beaumont, G. Bureau for the Gifted and Talented, Office of Education, Washington, DC. Personal Communication, 1978 [Telephone].

Betts, G.T., & Neihart, M. (1988). Profiles of the gifted and talented. Gifted Child Quarterly, 32, 248-253.

Betts, G.T. (1986). Development of the emotional and social needs of gifted individuals. Journal of Counseling & Development, 64, 587-589.

Blackburn, A.C., & Erickson, D.B. (1986). Predictable crises of the gifted student. Journal of Counseling & Development, 64, 552-555.

Borgers, S. B. (1980). Using reality therapy in the classroom with gifted individuals. Gifted Child Quarterly, 24, 167-168.

Bransky, T. (1987). Specific program information: A key to attitudes about the gifted education program. Gifted Child Quarterly, 31, 20-24.

Brotherton, S.J. Counselor education for the twenty-first century. Westport, CT: Bergin & Garvey.

Brown, L.L. (1993). Special considerations in counseling gifted students. School Counselor, 40, 184-190.

Bryan, J.A. (2003). An investigation of school counselor involvement in school-family-community partnerships: Exploring the gap between current and prescribed practice. Unpublished doctoral dissertation, University of Maryland, College Park.

Buescher, T.M. (1985). A framework for understanding the social and emotional development of gifted and talented adolescents. Roeper Review, 8, 10-15.

Busse, T.V., Dahme, G., Wagner, H., & Wieczerkowski, W. (1986). Teacher perceptions of highly gifted students in the United States and West Germany. Gifted Child Quarterly, 30, 55-60.

Carlson, N.N. (1981). An exploratory study of characteristics of gifted and talented foreign language learners. Foreign Language Annals, 14, 385-391.

Cassidy, J., & Hossler, A. (1992). State and federal definitions of the gifted: An update. Gifted Child Today, 15, 46-53.

Clark, B. (1997). Growing up gifted (5th ed.). Upper Saddle River, NJ: Prentice-Hall, Inc.

Colangelo, N. (1997). Counseling gifted students: issues and practices. In N. Colangelo, & G.A. Davis (Eds.), Handbook of gifted education (2nd ed.) (pp. 353-365). Needham Heights, MA: Allyn & Bacon.

Colangelo, N. (2002). Counseling gifted and talented students. Storrs, CT: The National Research Center on the Gifted and Talented.

Colangelo, N. & Davis, G.A. (1997). Introduction and overview. In N. Colangelo, & G.A. Davis (Eds.), Handbook of gifted education (2nd ed.) (pp. 3-9). Needham Heights, MA: Allyn & Bacon.

Colangelo, N., & Kelly, K. R. (1983). A study of student, parent, and teacher attitudes toward gifted programs and gifted students. Gifted Child Quarterly, 27, 107-110.

Coleman, M.R. (1997). Developing a comprehensive array of high school services. Gifted Child Today Magazine, 20, 32, 48.

Coleman, M.R. (2003). The identification of students who are gifted. Arlington, VA: The Council for Exceptional Children (ERIC Clearinghouse on Disabilities and Gifted Education No. E644).

Coleman, M. R., & Gallagher, J. J. (1995). State identification policies: Gifted students from special populations. Roeper Review, 17, 268-275.

Copenhaver, R.W., & Mc Intyre, D.J. (1992). Teachers' perception of gifted students. Roeper Review, 14, 151-153.

Cox, J., Daniel, N., & Boston, B.O. (1985). Educating able learners: Programs and promising practices. Austin: University of Texas Press.

Cramond, B., & Martin, C.E. (1987). Inservice and preservice teachers' attitudes toward the academically brilliant. Gifted Child Quarterly, 31, 15-19.

Culross, R.R. (1982). Developing the whole child: a developmental approach to guidance with the gifted. Roeper Review, 5, 24-26.

Culross, R.R. (1989). Measurement issues in the screening and selection of the gifted. Roeper Review, 12, 76-78.

Davis, G.A., & Rimm, S.B. (1998). Education of the gifted and talented (4th ed.). Needham Heights, MA: Allyn & Bacon.

Deiulio, J.M. (1984). Attitudes of school counselors and psychologists toward gifted children. Journal for the Education of the Gifted, 7, 164-169.

Delisle, J.R. (1992). Guiding the social and emotional development of gifted youth. White Plains, NY: Longman.

Delisle, J.R. (1986). Death with honors: Suicide among gifted adolescents. Journal of Counseling and Development, 64, 558-560.

Education Trust (2003). Transforming school counseling. Washington, DC: Author. Retrieved from http://www2.edtrust.org/EdTrust/Transforming+ School+Counseling/main.

Erford, B.T. (Ed.). (2003). Transforming the school counseling profession. Upper Saddle River, NJ: Pearson Education, Inc.

Evans, K.M. (1997). Multicultural training needs for counselors of gifted African American children. Multicultural Education, 5, 16-19.

Feldhusen, J.F. (1989). Why the public schools will continue to neglect the gifted. Gifted Child Today, 12, 55-59.

Feldhusen, J., and Hoover, S.M. (1986). A conception of giftedness: Intelligence, self concept and motivation. Roeper Review, 8, 140-143.

Fox, R.J., Crask, J.R., & Kim, J. Mail survey response rate: A meta-analysis of selected techniques for inducing response. Public Opinion Quarterly, 52, 467-491.

Gallagher, J.J. (1990). Editorial: The public and professional perception of the emotional status of gifted children. Journal for the Education of the Gifted, 13, 202-211.

Gallagher, J.J. (1993). In K.A. Heller, F.J. Monks, & A.H. Passow (Eds.), International handbook of research and development of giftedness and talent. (pp. 755-770). Tarreytown, New York: Pergamon Press.

Gallagher, J.J. (1997). Issues in the education of gifted students. In N. Colangelo, & G.A. Davis (Eds.), Handbook of gifted education (2nd ed.) (pp. 10-23). Needham Heights, MA: Allyn & Bacon.

Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York: Basic Books, Inc.

Green, S.B., & Salkind, N. J. (2003). Using SPSS for Windows and Macintosh 3rd ed.). Upper Saddle River, NJ: Prentice Hall.

Guindon, M.H. Assessment. In B.T. Erford, (Ed.), Transforming the school counseling profession (pp. 331-355). Upper Saddle River, NJ: Pearson Education, Inc.

Hanninen, G.E. (1988). A study of teacher training in gifted education. Roeper Review, 10, 139-144.

Hanson, C., & Stone, C. (2002). Recruiting leaders to transform school counseling. Theory into Practice, 41, 163-168.

Heller, K.A. (1993). Structural tendencies and issues of research on giftedness and talent. In K.A. Heller, F.J. Monks, & A.H. Passow (Eds), International handbook of research and development of giftedness and talent. (pp. 49-67). Tarreytown, New York: Pergamon Press.

Heller, K.A., Mönks, F.J., & Passow, A.H. (1993). International handbook of research and development of giftedness and talent. Tarrytown, NY: Pergamon Press.

Hildreth, G. (1966). Introduction to the gifted. New York: McGraw Hill.

Holcomb-McCoy, C., Bryan, J., & Rahill, S. (2002). Importance of the CACREP school counseling standards: school counselors' perceptions. Professional School Counseling, 6, 112-119.

Hollingworth, L.S. (1926). Gifted children: Their nature and nurture. New York: Macmillan.

Hollingworth, L.S. (1928). The psychology of the adolescent. New York: D. Appleton and Company.

Hollingworth, L.S. (1942). Children above 180 IQ. Yonkers-on-Hudson, NY: World Book.

House, R.M., & Hayes, R.L. (2002). School counselors: Becoming key players in school reform. Professional School Counseling, 5, 249-256.

House, R.M., & Martin, P.J. (1998). Advocating for better futures for all students: A new vision for school counselors. Education, 119, 284-291.

Kerr, B.A. (1986). Career counseling for the gifted: Assessments and interventions. Journal of Counseling and Development, 64, 602-604.

Kerr, B.A., & Colangelo, N. (1988). The college plans of academically talented students. Journal of Counseling and Development, 67, 42-48.

Kerr, B., Colangelo, N., Maxey, J., & Christensen, P. (1992). Characteristics of academically talented minority students. Journal of Counseling & Development, 70, 606-609.

Kulik, J. & Kulik, C. (1997). Ability grouping. In N. Colangelo, & G.A. Davis (Eds.), Handbook of gifted education (2nd ed.) (pp. 230-242). Needham Heights, MA: Allyn & Bacon.

Landrum, M.S. (1987). Guidelines for implementing a guidance/counseling program for gifted and talented students. Roeper Review, 10, 103-107.

Landrum, M.S., Katsiyannis, A., & DeWaard, J. (1998). A national survey of current legislative and policy trends in gifted education: Life after the National Excellence report. Journal for the Education of the Gifted, 21, 352-371.

Lee, C.C., & Sirch, M.L. (1994). Counseling in an enlightened society: Values for a new millennium. Counseling and Values, 38, 90-97.

Lightfoot, J.H. (2002, September). Multicultural forum. Keynote address at the 58th National Conference of the National Association for College Admission Counseling, Salt Lake City, Utah.

Manaster, G.J., Chan, J.C., Watt, C., & Wiehe, J. (1994). Gifted adolescents' attitudes toward their giftedness: A partial replication. Gifted Child Quarterly, 38, 176-178.

Manaster, G.J., & Powell, P.M. (1983). A framework for understanding gifted adolescents' psychological maladjustment. Roeper Review, 6, 70-73.

Marland, S.P., Jr. (1971). Education of the gifted and talented (2 vols.). Washington, DC: U.S. Government Printing Office.

Martin, P.J. (2002). Transforming school counseling: A national perspective. Theory into Practice, 41, 148-153.

Martinson, R.A. (1975). The identification of the gifted and talented. Reston, VA: The Council for Exceptional Children.

Mertens, D.M. (1998). Research methods in education and psychology: Integrating diversity with quantitative & qualitative approaches. Thousand Oaks, CA: Sage Publications.

Meyers, R.S. & Pace, T.M. (1986). Counseling gifted and talented students: Historical perspectives and contemporary issues. Journal of Counseling and Development, 64, 548-551.

Milgram, R.M. (1991). Counseling gifted and talented children: A guide for teachers, counselors, and parents. Norwood, NJ: Ablex.

Mills, B.N., & Berry, G.L. (1979). Perceptions of decision-making groups toward programs for the mentally gifted. Educational Research Quarterly, 4, 66-76.

Munger, A. The parent's role in counseling the gifted: The balance between home and school. In J. VanTassel-Baska (Ed.), A practical guide to counseling the gifted in a school setting (2nd ed.) (pp. 57-65). Reston, VA: The Council for Exceptional Children.

Myers, R.S., & Pace, T.M. (1986). Counseling gifted and talented students: Historical perspectives and contemporary issues. Journal of Counseling & Development, 64, 548-551.

National Association for Gifted Children (NAGC) Counseling and Guidance Division. (2003). Meeting the needs of diverse gifted and talented students. Washington, DC: Author. Retrieved from http://www.nagc.org/NSBA/NSBAcover2003.htm.

National Commission on Excellence in Education. (1983). A nation at risk: The imperative for educational reform. Washington, DC: U.S. Government Printing Office.

Neihart, M. (1999). The impact of giftedness on psychological well-being: What does the empirical literature say? Roeper Review, 22, 10-17.

Parker, J. (1988). Differentiated Programs for the G/C/T…Luxury or necessity? Gifted Child Today11, 31-33.

Parker, W.D., & Adkins, K.K. (1995). Perfectionism and the gifted. Roeper Review, 17, 173-176.

Pendarvis, E.D., Howley, A.A., & Howley, C.B. (1990). The abilities of gifted children. Englewood Cliffs, NJ: Prentice Hall.

Purcell, J.H. (1995). Gifted education at a crossroads: The program status study. Gifted Child Quarterly, 39, 57-65.

Rea, L.M., & Parker, R.A. (1997). Designing and conducting survey research: A comprehensive guide (2nd ed.). San Francisco, CA: Jossey-Bass Publishers.

Reichert, E.S. (1997). Excellence with equity in identification and programming. In N. Colangelo, & G.A.Davis (Eds.), Handbook of gifted education (2nd ed.) (pp. 75-88). Needham Heights, MA: Allyn & Bacon.

Reis, S.M. (1998). Underachievement for some—dropping out with dignity for others. Communicator, 29, 19-24.

Reis, S.M., & McCoach, D.B. (2000). The underachievement of gifted students: What do we know and where do we go? Gifted Child Quarterly, 44, 152-170.

Renzulli, J.S. (1978). What makes giftedness? Reexamining a definition. Phi Delta Kappan, 60, 180-184, 261.

Renzulli, J.S. (1994). Teachers as talent scouts. Educational Leadership, 52, 75-81.

Renzulli, J.S. & Reiss, S.M. (1997). The schoolwide enrichment model: New directions for developing high-end learning. In N. Colangelo, & G.A. Davis (Eds.), Handbook of gifted education (2nd ed.) (pp. 136-154. Needham Heights, MA: Allyn & Bacon.

Renzulli, J.S., & Reis, S.M. (1999). The reform movement and the quiet crisis in gifted education. Gifted Child Quarterly, 35, 26-35.

Richert, E. S. (1997). In N. Colangelo, & G.A. Davis (Eds.), Handbook of gifted education (2nd ed.) (pp. 75 88). Needham Heights, MA: Allyn & Bacon.

Rimm, S.B. (1997). Underachievement syndrome: A national epidemic. In N. Colangelo, & G.A. Davis (Eds.), Handbook of gifted education (2nd ed.) (pp. 416-434). Needham Heights, MA: Allyn & Bacon.

Robinson, A. (1997). Cooperative learning for talented students: Emergent issues and implications. In N. Colangelo, & G.A. Davis (Eds.), Handbook of gifted education (2nd ed.) (pp. 243-253). Needham Heights, MA: Allyn & Bacon.

Ross, P.O. (1997). Federal policy on gifted and talented education. In N. Colangelo, & G.A. Davis (Eds.), Handbook of gifted education (2nd ed.) (pp. 553-559). Needham Heights, MA: Allyn & Bacon.

Rysiew, K.J., Shore, B.M., & Leeb, R.T. (1999). Multipotentiality, giftedness, and career choice: A review. Journal of Counseling & Development, 77, 423-430.

Salant, P. & Dillman, D.A. (1994). How to conduct your own survey. New York: John Wiley & Sons, Inc.

Sapon-Shevin, M. (1994). Why gifted students belong in inclusive schools. Educational Leadership, 52, 64-69.

Seagoe, M. (1975). Some learning characteristics of gifted children. In R. Martinson, The identification of the gifted and talented. Ventura, CA: Office of the Ventura County Superintendent of Schools.

Selden, S. (1983). Biological determinism and the ideological roots of student classification. Journal of Education, 165, 175-191.

Silverman, L.K. Issues in affective development of the gifted. In J. VanTassel-Baska (Ed.), A practical guide to counseling the gifted in a school setting (2nd ed.) (pp. 15-30). Reston, VA: The Council for Exceptional Children.

Silverman, L.K. Counseling needs and programs for the gifted. In K.A. Heller, F.J. Monks, & A.H. Passow (Eds), International handbook of research and development of giftedness and talent. (pp. 631-647). Tarreytown, New York: Pergamon Press.

Singal, D.J. (1991). The other crisis in American education. The Atlantic, 268, 59-74.

St. Clair, K.L. (1989). Counseling gifted students: A historical review. Roeper Review, 12, 98-102.

Stipek, D. (1993). Motivation to learn: From theory to practice. Needham Heights, MA: Allyn & Bacon.

Tennyson, W.W., Miller, G.D., Skovholt, T.G., & Williams, R.C. (1989). Secondary school counselors: What do they do? What is important? The School Counselor, 36, 253-259.

Thom, D., & Newell, N. (1965). Promoting good adjustment: Hazards of the high I.Q. In W. Barbe (Ed.), Psychology and education of the gifted: Selected readings (pp. 354-370). New York, NY: Appleton-Century-Crofts.

Thompson, T. (1988, December 12). Blacks underrepresented in gifted program. The Baton Rouge State Times, p. 1B.

Tolbert, E.L. An introduction to guidance: The professional counselor (2^{nd} ed.). Boston: Little, Brown & Company.

Tomlinson, C.A. (1994). Gifted learners too: a possible dream? Educational Leadership (52), 68-72.

Torrance, E.P. (1965). Gifted children in the classroom. New York: Macmillan.

Trezise, R.L. (1973). Are the gifted coming back? Phi Delta Kappan, 54, 687-688.

U.S. Department of Education. (1993). National excellence: A case for developing America's talent. Washington, DC: Office of Educational Research and Improvement.

VanTassel-Baska, J. (Ed.). (1990). A practical guide to counseling the gifted in a school setting (2nd ed.). Reston, VA: The Council for Exceptional Children.

VanTassel-Baska, J. (1997). Counseling talented learners. Counseling and Human Development, 29, 1-12.

Walker, J.J. (1982). The counselor's role in educating the gifted and talented. The School Counselor, 29, 362-370.

Wang, M.C., Reynolds, M.C., & Walberg, H.J. (1994). Serving students at the margins. Educational Leadership, 52, 12-22.

Webb, J.T. (1993). In K.A. Heller, F.J. Monks, & A.H. Passow (Eds.), International handbook of research and development of giftedness and talent. (pp. 525-538). Tarreytown, New York: Pergamon Press.

Wiener, J.L., & O'Shea, H.E. (1963). Attitudes of university faculty, administrators, teachers, supervisors, and university students toward the gifted. Exceptional Children, 30, 163-165.

Whitmore, J.R. (1980). Giftedness, conflict, and underachievement. Needham Heights, MA: Allyn and Bacon.

Whitmore, J.R. (1982). Recognizing and developing hidden giftedness. The Elementary School Journal, 82, 274-283.

Zaffrann, R.T. (1978). Gifted and talented students: Implications for school counselors. Roeper Review, 1, 9-13.

Zaffrann, R.T., & Colangelo, N. (1977). Counseling with gifted and talented students. The Gifted Child Quarterly, 21, 305-321.