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Examining Teachers’ Perceptions of Twice Exceptional Students: Overview of a Qualitative Exploration

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This study explored the perceptions high school teachers hold of students who are gifted and also have learning disabilities, identified in the literature as “twice exceptional” learners. Not all teachers have training in gifted education; nor do they all understand the complexities of learning disabilities. National and local gifted organizations and agencies specifically acknowledge the existence of outstanding talents among these diverse groups and the need, therefore, for differentiated services.

Within the spectrum of differences among gifted students there are those who bring a combination of superior strengths, as well as specific learning weaknesses to school. These twice exceptional students tend to do well until they reach a level at which their personal compensation strategies do not give them enough support to maintain academic success (Silverman, 2005). Usually, by the high school years, the energy and effort needed to compensate for learning problems becomes overwhelming and progress, or lack of it, challenges both the teachers and students (Silverman, 2005). How do high school teachers perceive this confusing challenge? What do they think about students who show great promise and, yet, struggle at the same time? Do they understand their students’ difficulties and offer expertise and wisdom to guide them through complex content? Or are they oblivious to the serious challenges these students face and, therefore, miss opportunities for real service to learners?

The current body of research informs us of teachers’ perceptions of students who are gifted (Greene, 2003; Swanson, 2006) and of teachers’ perceptions of students with learning disabilities (Bearn & Smith, 1998; Oakland, Shermis, & Coleman, 1990). However, there is a significant need for research on teachers’ perceptions of those
students who fit into both of these realms (Baum, 2004; Brody & Mills, 1997). Baum, Olenchak, and Owen (2004) also report on the lack of knowledge in the field of education regarding the education of gifted students with learning disabilities. In looking back on their elementary and secondary school years, twice exceptional students (in Reis, McGuire, & Neu, 2000) confirm that their early schooling reflected a lack of teacher expertise. How do teachers view this state of affairs? A brief examination of the literature available offers significant findings about twice exceptional students, but yields limited information about teacher perceptions.

**Definition of Terms**

**Giftedness**

Understanding and defining giftedness continues to challenge gifted education and psychology scholars (e.g., Gagne, 1995; Gardner, 1993; Plomin & Petrill, 1997; Tannenbaum, 1983; VanTassel-Baska, 2003). Early pioneers in the field of gifted education and psychology of the gifted, Terman in 1925 and Stanley in 1971 (as discussed in Subotnik & Arnold, 1994) used intelligence tests alone to identify giftedness. This led to a common understanding of giftedness as the presence of an unusual degree of a g factor, or general intelligence, in the make-up of an individual. Recent scientific discoveries help us to see that what was once thought a static condition or specific amount of intelligence is actually pliable or, as VanTassel-Baska (2003) describes it, expandable like a “rubber band” (p. 86). Plomin and Petrill (1997) summarize the findings of neuroscience and more recent understandings of gene development to demonstrate the potential of students to develop if they receive an education that stretches their original genetic make-up to its potential. VanTassel-Baska notes that although there are individuals who are intellectually outstanding across domains or disciplines, giftedness usually is demonstrated in a specific domain of intellectual or artistic achievement. Educational institutions indicate that gifted children are those who would benefit from gifted services and programs. In line with new understandings of giftedness that do not rely exclusively on a test administered at a single point in time, school districts have expanded their identification procedures to include the use of multiple criteria such as authentic assessments, checklists, observations, and unusual achievement to identify a gifted child.

When all is said and done, giftedness is generally considered to be intelligence, achievement, and potential that are unusual when compared to that of one’s peers; or achievement in a field that is rare and particularly outstanding (VanTassel-Baska, 2003). Gagne’s (1995) model of talent development recognizes many factors that influence the development of giftedness, including the support of the home and the school, and the personal intrinsic motivation of the person. These factors have a strong link to the focus of this study because unusual persistence and commitment to personal interests seem to propel twice exceptional children to overcome their challenges and achieve success (Reis et al., 2000).

**Learning Disabilities**

Brody and Mills (1997) characterize learning disabilities as an “invisible disorder” (p. 12). Unlike physical disabilities, such as blindness or cerebral palsy, an
inability to process and integrate information through sensory channels is not initially obvious to the individual or to those around him. Federal legislation defines a learning disability as

a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. (IDEA Amendment, 2001)

The work of Lyon et al. (2001) applies knowledge provided by contemporary medical technology, such as magnetic resonance imaging, to knowledge of learning disabilities. They suggest that both genetics and the environment, including instruction, and economic and social conditions, create or block neurological pathways for learning. Brody and Mills’ (1997) contention above that a learning disability is invisible, may be somewhat dated, given technological advances in diagnosis. However, because of numerous causes and manifestations, learning disability does remain a complex construct to define, according to scholars (e.g., Lyon et al., 2001; Johnston, 1984). In light of federal and state legislative mandates for educational progress of all groups of learners, Lyon et al. suggest the need for a utilitarian shift away from definitions to a focus on the delivery of specialized instruction to meet individual needs whenever they occur.

Twice Exceptional Students

Defining twice exceptional students, or gifted students with learning disabilities, is difficult due to the duality of conditions. Some researchers (e.g. Baum et al., 2004; Brody & Mills, 1997; Shaywitz et al., 2001) do a careful job of specifying definitions of learning disabilities and characteristics of students with learning disabilities as well as discussing giftedness and characteristics of gifted students. A discrepancy between ability and achievement scores is commonly used to identify a learning disability (Lyon et al., 2001). Brody and Mills (1997) find this method of identifying learning disabilities particularly useful when identifying twice exceptional students. They favor using the discrepancy concept in identification because there is no ceiling in the area of strength scores, even though there is a weakness or learning disability in another area. Wallach (in Silverman, 2005) describes these learners as having “extraordinary abilities and unusual deficits” (p. 2). Silverman (2005) finds that one-sixth of the gifted population may show a large discrepancy of abilities, and, indeed, have learning disabilities. Brody and Mills (1997) refer to a 1985 Baum study in which the researcher finds evidence of giftedness in 33% of a group of students with identified learning disabilities. Yet, many education scholars (e.g., Silverman, 2005; Gardner, 1993) also emphasize that gifted learners may demonstrate “asynchronous development” or development that is advanced in one area and delayed in another. Typically, this is evident in children who are advanced mentally but may be behind their age peers physically or emotionally. Uneven development is also found among cognitive domains (Silverman, 2005). Therefore, educators must be careful not to confuse uneven development with an actual learning disability.

Further complicating matters are manifestations of the psychological nature of the highly gifted learner, which may be mistaken for characteristics associated with students with learning disabilities. Cruickshank (in Shaywitz et al., 2001) describes the highly
gifted as having supersensitive nervous systems and as being hyperactive and distractible. Baum (2004) gives considerable attention to the notion of hyperactivity as a typical characteristic, rather than problem, of gifted students, particularly highly gifted ones. Piechowski and Colangelo (in Baum et al., 2004) describe this as having “an excess of energy” (p. 42), and Cruickshank (in Baum et al., 2004) thinks of the activity as a positive characteristic of gifted children. He is supported by Dabrowski’s (1964) theory that high intelligence leads to excessive or excitable behavior, due to the quality of mental stimulation gifted individuals experience. These “overexcitabilities” manifest themselves in psychomotor, sensual, intellectual, imaginative, and emotional forms. Thus, although hyperactivity can play a part in learning disabilities and can be seen in gifted children as an over-excited component of the personality, hyperactivity, in itself, does not indicate a learning disability. In fact, Dabrowski and Piechowski (1977) suggest that these students possess the greatest potential for high levels of development, since they assert that “developmental potential is strongest in an individual if all or almost all forms of overexcitability are present” (p. 58).

Because asynchronous development and overexcitabilities in gifted learners may be misunderstood as symptomatic of a learning disability, when it is not, it is important to construct a fuller picture from available research. A brief discussion of the nature of the twice exceptional child examines the challenges, the positive aspects, and the roles of others in the life of these learners.

**Research on the Nature of Twice Exceptional Students**

**Challenges**

There seems to be a preponderance of references to negative descriptions of students with learning disabilities, gifted students, and those who are twice exceptional. Baum et al. (2004) and Silverman (2005) find that each type of learner may develop impulsivity and an extreme lack of inhibition. In gifted students this is typically found when they are not challenged academically.

Baum (2004) and Silverman (2005) also find that the social-emotional implications for a twice exceptional learner become more pronounced in adolescence, when students face more academic challenges. Baum et al. (2004) examine the possibility that giftedness accompanied by attention deficit hyperactivity disorder (ADHD) may actually be a result of boredom, rather than a learning disability. They consider this line of inquiry important because many students with learning disabilities also exhibit hyperactivity. Others (Baum, 1984; Elkind, 1988) also note the need to distinguish between learning problems due to boredom and inappropriate curriculum, and those that result from sensory processing problems or learning disabilities.

Frustration due to perfectionism is a common characteristic among gifted students, and learning disabilities increase this frustration for twice exceptional students. Researchers (Schiff et al., 1981, in Brody and Mills, 1997) find, in a survey of twice exceptional students, that “virtually all had some idea that they could not make their brain, body, or both do what they wanted it to do” (p. 403). Brody and Mills (1997) also note conflicts between students’ desires for independence and dependence, students’ high aspirations and the low expectations of others, low self-concept, and general problems with frustration and anger that lead to difficult personal relations.
Hopeful and Positive Aspects

Other more positive views are also represented in the literature. The interplay of intelligence, heightened sensitivities and physical activity, common to gifted children, contributes to our understanding of twice exceptional students. Dabrowski’s (1964) theory of the personal development of gifted children supports the notion, also found in research literature (Woodrum & Savage, 1994) of learning disabilities, that learning and psychological problems, including a variety of heightened sensitivities, actually may be positive pathways to creative abilities and activities. This research is supported further by the findings of Reis et al. in a 2000 study of college-level students’ experiences as twice exceptional learners. These students developed personal habits and skills to compensate for their weaknesses and seemed to translate their frustrations into positive action on their own behalf. Similarly, Baum and Owen (in Reis et al., 2000) and Silverman (2005) identify unusual persistence, humility, and strong personal interests as characteristic of twice-exceptional learners. While these students experienced low academic self-efficacy due to their understandable struggles, rather than focusing on their disabilities, they typically developed their own strategies to compensate for their weaknesses. In addition, they were very involved in activities relating to their own special interests. Twice exceptional adults interviewed about their experiences identified “the desire and effort to control one’s life” (Reis et al., 2000, p. 124) as central to their success. Using metacognition and problem solving throughout their lives, these adults were goal-oriented and positive in their approaches to life’s tasks. Silverman concludes that the gifts of twice exceptional children may reveal themselves in many realms not currently valued in today’s environment. She includes in this category unusual compassion for the struggles of others, an ability to perceive meaning in life, and deep spiritual connections to the wider world.

Perceptions and Missteps of Others

Much of the literature (e.g., Baum et al., 2004; Brody & Mills, 1997; Reis et al., 2000; Shaywitz et al., 2001) on the social-emotional problems some gifted children with learning disabilities experience suggests that the problems are rooted generally in students’ behavior and other’s reactions to that behavior. Teachers and parents both can find the natural overexcitabilities of a gifted child difficult to tolerate. This places the gifted child with a learning disability at even greater emotional and psychological risk of adult disapproval and rejection. Likewise, their same age-peers may find them odd or different (Brody & Benbow, 1986). Reports suggest that both highly gifted students and students with learning disabilities are typically less popular than their moderately gifted counterparts. This is caused primarily by preoccupation with their own interests and the hyperactivity that may be occasioned by frustration and excess energy (Shaywitz et al., 2001).

Silverman (2005) and others (e.g., Davis and Rimm, 1998) highlight the missteps and misunderstandings of special and even gifted education teachers, who mistakenly offered remedial interventions, instead of compensatory strategies and acceleration, to twice exceptional high school students. Johnston (1984) and Lyon et al. (2001) contend that, beyond age nine, remediation is less effective, due to the maturation of neural pathways, and that compensation strategies are more effective in meeting the learning
needs of students with learning disabilities. College students’ reflections upon their early school years affirm this finding, as discussed below.

**Students’ Reflections on School Experiences**

In Silverman’s 2005 Report to the European Council of International Schools, she notes that twice exceptional students seem to have fairly negative feelings about the usefulness of their own early school experiences. Likewise, the high ability college students in Reis et al.’s 2000 study indicate that although they were on the road to success, “all of the participants recalled negative and, in many cases, painful memories. Teachers accused them of being lazy because of the intersection of their abilities and disabilities” (p. 128). Students complained, upon learning of compensation strategies for the first time in college, that they would have appreciated learning more in high school about study strategies, learning and memory strategies, and technical compensation supports, rather than the unorganized rote work they were offered by special education teachers.

All the participants in Reis et al.’s (2000) study make the point that they achieved success by building on their strengths and areas of genuine, personal interest. This finding supports Csikszentmihalyi, Rathunde, and Whalen’s (1993) conclusion from their work with gifted teens: that of all possible routes to success, development of strong personal interests is the most productive.

**Need to Know Teachers’ Perceptions**

High school teachers are important to the future success of students in their areas of particular interest. Beckley (1998) recommends that teachers assist twice exceptional students in understanding their weaknesses so that any barriers to the development of their exceptional talents can be addressed realistically. Thus, how do teachers perceive twice exceptional students who do not always act as teachers might expect gifted students to act? Do they know how to assist those who may have serious difficulties in reading or mathematics or in the sensory processing of information, be that visual, auditory, or the integration of both? Given the complex nature of the topic itself, this exploration is framed within a constructivist paradigm to best elicit the answers to these questions.

In a quest to learn, understand, and describe thoroughly the perceptions of teachers, this study attempted to construct an understanding of the realities teachers shared with us. The task of bringing to light teachers’ perceptions about twice exceptional students aligns well with Glesne’s (2006) conception of the constructivist task. She describes that task as one of probing for understanding of another’s thinking and feeling about a topic. Rossman and Rallis’ (2003) explication of constructivist researchers building thick description, rather than generalizable findings, also matches the goal of our research.

In exploring the perceptions of teachers concerning students who are gifted and who also have a learning disability (twice exceptional), this study hoped to unearth what these teachers knew about giftedness and learning disabilities. The study hoped to learn how they feel about teaching such students, how effective they feel they are in supporting such students’ achievement and aspirations, and what specific strategies they use to teach twice exceptional children. This study provides insight into teachers’ perceptions of gifted students with learning disabilities that enables us to facilitate much needed
conversations about this underserved and often ignored student population. While this exploration is but a small part of the research needed to develop a full understanding of academic and counseling services that contribute to a high quality educational experience for gifted students who have learning disabilities, it sought to build a greater understanding of the nature of selected teachers’ perceptions and to contribute to a fuller description of the ways teachers think about their students in the classroom context and as individual learners.

**Research Paradigm**

This study is situated firmly in the constructionist paradigm as described by Michael Crotty (in Patton, 2002) when he explains constructionism as “the collective generation of meaning” (p. 97). His distinctions define the working of the individual mind to construct reality as constructivist thinking and the attempt of researchers to create a synthesis of discovered knowledge as constructionism. Like Guba and Lincoln (in Patton, 2002), this study viewed the constructivist perspective as “ontologically relativist, epistemologically subjectivist, and methodologically hermeneutic and dialectic” (p. 98). In addition, the complex social context of the perceptions teachers have of twice exceptional students was recognized and thus the perspective is described as “weak social constructivist” (Schwandt, 2001, p. 32). Thus the study is only concerned with the way teachers build their understandings of twice exceptional children, not the actual reality of their experiences. The layers of the social context include teachers’ own experiences as learners, their training and experiences as teachers, the schools where they are teaching, and the demands of the subject matter. Other factors contributing to the complexity of the social context include an individual’s culture heritage, values, and career goals. Capturing all of this, distilling it for meaning and creating a corporate understanding was a challenge. Framing the study within the social constructivist perspective contributed to a truthful presentation of results. That truth is the heart of the trustworthiness of this research (Guba and Lincoln in Patton, 2002, p. 98).

**Research Strategy**

This study investigated “the lived experiences of a small number of people” (Rossman and Rallis, 2003, p. 97). From a phenomenological perspective, it sought to capture the “ordinary conscious experience of everyday life” (Schwandt, 2001, p. 191) and to “describe the experience of everyday life as it is internalized in the subjective consciousness of individuals” (p. 192). The phenomenon of perceptions from the teachers’ points of view are described and left to stand on their own. Perceptions were captured through interviews and explanations of teacher-selected metaphorical objects that represent their sense of twice exceptional students, and analyzed without passing judgment. These were examined in an effort to simply understand.

**Participants**

The study sample consisted of interviews conducted with nine content area high school teachers, including general education teachers, advanced placement or honors teachers, and special education teachers. This permitted triangulation by comparing
interviews within a common group, such as the three general education teachers’ interviews. It also provided an opportunity to understand more deeply different perceptions related to teachers’ specific roles in the education of twice exceptional children. Participants were chosen through networking and the snowball strategy, described by Patton (2002). This type of sampling allowed understanding the perceptions of teachers while recognizing the social contexts in which they operate. Thick description of teachers’ perceptions was constructed, as there were common social backgrounds represented within each of the sets of teachers.

**Procedures for Data Generation and Collection**

Interviews, of approximately one hour in length, were conducted with each teacher participant off school premises. An Interview Guide was used to structure an open interview in which several selected issues related to teachers’ beliefs, attitudes, and feelings about twice exceptional children were explored. During the interviews, clarification and elaboration were sought as needed, and summaries were sent to the participants following the interviews as part of a “member checking” process (Schwandt, 2001). Each participant was further asked to bring to the interview an object that represented his or her perceptions of twice exceptional students. During the interview, participants were asked about how they connected their objects with their perceptions of twice exceptional students.

**Process of Data Analysis**

Open coding, axial coding, and selective coding were used in “a grounded, a posteriori, inductive, context-sensitive scheme” (Schwandt, 2001, p. 26) to analyze the interview and written data from the member check interaction. The unit of analysis was the discrete idea. The goal of the analysis was to understand the perceptions of teachers based on data analysis of the interviews. Basic typology, such as, beliefs, attitudes, feelings, and experiences was developed before analyzing the data, but most of the categories came directly from the interview data. Strauss and Corbin (1998) note that “theory derived from data is more likely to resemble the reality than is theory derived by putting together a series of concepts based on experience or solely through speculation” (p. 12). Thus it was with this same understanding that the study theory was constructed. While there are no specific guidelines for the analysis of material culture, as explained by Rossman and Rallis (2003), this data was analyzed as the teachers’ reflections on their selected object. Particular attention was paid to how the teacher handled the object, the body language employed by the teacher, and any other non-verbal aspects of this part of the interview. Analysis of these aspects of the object consideration helped lead to “higher levels of interpretation and inference” (p. 304) and probed at the meaning these objects held for the participants.

**Intended Audience**

Teachers and school counselors will benefit the most from the results of this study. Growth in the practice of teaching is always needed and a consideration of the perceptions of high school teachers can lead to such growth on the part of teachers. Further, school counselors working with twice exceptional students can gain much from
understanding the perceptions teachers have of these students and how that may impact those students’ experiences within the school environment. Students themselves also can benefit from considering the results. Since, according to Reis et al. (2000) and Olenchak (1995) twice exceptional adolescents should become their own advocates, reading the results of this study may provide them with some advance notice of the perceptions they may encounter in high school teachers. They can communicate more effectively with teachers if students have an opportunity to understand teachers’ perceptions and the underlying meaning of twice exceptionality to them.

There is a growing base of literature on who twice exceptional learners are and the strategies that contribute to their success; however, relatively little information exists about their teachers’ perceptions. The construction of a greater understanding of perceptions permits researchers to serve both twice exceptional students and their teachers in more meaningful and useful ways. While this study is small-scale and limited in nature, the findings could serve as an impetus for further study of this particular group of gifted students.

**Discussion and Commentary**

This study opened with the following questions: How do high school teachers perceive this challenge (of a student being gifted in one area and having a learning disability in another)? What do they think about students who show great promise, and, yet, struggle at the same time? Do they understand their students’ difficulties and offer expertise and wisdom to guide them through complex content? Or, are they oblivious to the serious challenges these students face and, therefore, miss opportunities for real service to learners?

Execution of the study provided unique opportunities to talk with practicing teachers and to be privy to their thoughts, feelings, and beliefs about teaching twice exceptional students. The constructionist paradigm was particularly appropriate and meaningful in allowing for “the collective generation of meaning” (Crotty in Patton, 2002, p. 97). Participants’ stories and examples were viewed across and within themes, gradually creating a collage of the twice exceptional experience for teachers and, in a sense, for their students.

Much of what participants shared is echoed in the research findings. Many voiced Hodgkinson’s (2007) conclusions regarding the challenge increasing diversity represents in their planning and delivery of instruction. In addition, teachers’ observations and insights about twice exceptional students’ social emotional growth were consistent with the research of Reis et al. (2000) and Silverman (2005). Teachers’ description of twice exceptional students often highlighted the work of Brody and Mills (1997) on twice exceptional students as invisible.

Researchers Lyon et al. (2001) pointed out the need for the field of education to shift away from identification to the provision of specialized instruction for twice exceptional students. Interestingly, teachers whose philosophy of education was more inclusive seemed to be more open to modifying their instruction for students who needed it. One veteran teacher effectively proclaimed that nobody was special because everyone is. Then proving her point, she went on to describe the modifications and accommodations she provides to students whose learning needs are outside the norm.
While teachers expressed a need for more staff development, there is a real need to empower teachers to go after what they need, to experiment, and to accept responsibility for the education of their students.

Many participants criticized special education departments, including the special education teachers among them. Their testimony stands as they gave it. Problems with special education range from invisible IEPs, to pulling students out of class during instruction, to teachers’ perception of not being able to do anything educational, to lack of trust in special education labels. This strong critique of special education warrants further attention.

In sum, teachers showed varying levels of understanding of twice exceptionality. The special educators in the study seemed to have the most difficulty working with twice exceptional students. Considering the high incidence of learning disabilities among the gifted reported by Silverman (2005), this is an issue that requires renewed attention by schools of education, principals, and school district administrators.

Teachers answered the question of whether high school teachers guide students and provide information and strategies they need to succeed. Even the most open felt they did not offer enough and that more should be done for the students. However, they were not oblivious to students’ needs, although they raise the point that many twice exceptional students must go undetected. Their general compassion for twice exceptional students was reassuring. It suggests that further research and effective dissemination of strategies and materials to high school teachers may be a fruitful next step for us in our professional lives as graduate students, counselors, gifted education specialists, and gifted resource teachers.

References


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