

## Twice-exceptionality: Parents' Perspectives on Identification

Lynn Dare and Elizabeth Nowicki

Western University

*This is an Accepted Manuscript of an article published by Taylor & Francis in Roeper Review on 21/10/2015, available online at [www.tandfonline.com](http://www.tandfonline.com)*

<http://www.tandfonline.com/doi/abs/10.1080/02783193.2015.1077911?journalCode=uror>  
20

doi: 10.1080/02783193.2015.1077911

### Abstract

Twice-exceptional students have high abilities and coexisting learning difficulties. Abilities and difficulties tend to mask each other, and these under-identified students often struggle in school and express their frustrations at home. However, few studies have examined how parents experience the identification of their children's multiple exceptionalities. In this study, we used purposeful maximum variation sampling and interviewed parents of twice-exceptional children who were identified with attention issues, learning disabilities, Autism Spectrum Disorder, and emotional/behavioral disorder. We illustrate parents' experiences through member-checked vignettes. The results show unique experiences as well as commonalities among parents of twice-exceptional students. We conclude that parents play a critical advocacy role for their twice-exceptional children, yet they need support to fulfil this role.

**Keywords:** twice-exceptional, gifted learning disabled, parents' perspectives, dual exceptionality, learning difficulties, identification.

In the past, educators believed high intelligence to be a global construct, so the notion that students with high intelligence could also experience learning difficulties appeared incongruous (Brody & Mills, 1997). More recently, professionals in the field of gifted education have become increasingly aware that students can have both exceptional abilities and learning difficulties (Assouline & Whiteman, 2011), in other words they are twice-exceptional. However, among regular classroom teachers, awareness about coexisting exceptionalities remains limited (Foley-Nicpon, Assouline, & Colangelo, 2013) and little is known about how parents with twice-exceptional children become aware of their children's multiple exceptionalities. In this qualitative study, parents shared their stories about how their children were identified as twice-exceptional. We interviewed parents of twice-exceptional children, and framed parents' experiences in the context of the extant literature.

**Terminology.** We begin with a note on the various terms we will use throughout. In special education, students who are identified as exceptional tend to receive a label denoting their exceptionality. By definition, twice-exceptional students have at least two exceptionalities, so it follows that they often have a multiplicity of labels. For example, a child who is gifted and talented (G/T) and also has a specific learning disability (SLD) and attention deficit hyperactive disorder (ADHD) would be G/T/SLD/ADHD. The phrase "alphabet children" is apt for these students (Baum & Olenchak, 2002, p. 77). In this article, we only use labels to denote specific combinations of high-ability and learning difficulty. When

referring to the larger group of students who have high-ability and any kind of learning difficulty, we use the term *twice-exceptional* as well as the colloquial term *2e* (Reis, Baum, & Burke, 2014). When referring to research articles, we have retained the authors' original terms where appropriate for clarity.

**Prevalence of Twice-Exceptionality.** Up to seven percent of school-age children may be twice-exceptional, although the exact prevalence of twice-exceptionality is uncertain (Assouline & Whiteman, 2011). Estimating prevalence is hampered by low awareness about twice-exceptionality (Foley-Nicpon et al., 2013) and difficulties with formal identification (Brody & Mills, 1997, Bees, 2009).

#### **Characteristics and Identification**

Twice-exceptional students exhibit many combinations of abilities and difficulties. High-ability can be in one or more areas; in this study, we use the term high-ability to refer to students who are intellectually gifted, creative, and/or talented (Steenbergen-Hu & Moon, 2011). Learning difficulties may stem from attention deficits, specific learning disabilities (dyslexia, dyscalculia, dysgraphia, etc.), communication disorders, emotional and/or behavior disorders, physical problems, and/or sensory issues (Foley-Nicpon et al., 2013; Neihart, 2008; Weinfeld, Barnes-Robinson, Jeweler, & Roffman-Shevitz, 2006). This mix of combinations gives twice-exceptionality a multifaceted nature (Assouline & Whiteman, 2011).

Within educational settings, high-ability is often formally identified as intellectual giftedness. To identify students as gifted, school boards typically look for an overall intelligence score in

the top 2% (e.g., 130 or above on the Weschler Intelligence Scale for Children [WISC]) together with assessments such as parent and teacher observations and school grades (Antshel, 2008). However, many twice-exceptional students score lower on composite intelligence scores due to their areas of weakness (e.g., Baum & Owen, 1988; Ferri, Gregg, & Heggoy, 1997; Foley-Nicpon, Rickels, Assouline, & Richards, 2012) and so fail to meet the criteria for identification as gifted.

Learning difficulties are identified according to the type of difficulty. Specific learning disabilities may be identified by appropriately-qualified educators and diagnosticians; disorders such as Attention Deficit Hyperactive Disorder (ADHD), Autism Spectrum Disorder (ASD), or Emotional/Behavioral Disorder (EBD) are identified by qualified health professionals (including clinical psychologists and family physicians). This need for external professional involvement in the identification process can add a layer of complexity to identifying twice-exceptional children. Ongoing communication among home, school, and the health professional is essential for accurate diagnoses. We provide further detail on how SLD, ADHD, and ASD are identified in the relevant sections below.

Further compounding the challenges to identifying twice-exceptional students, disabilities and abilities often conceal each other; the masking of exceptionalities is one of the major barriers to identification (Brody & Mills, 1997; Foley-Nicpon et al., 2013). Unidentified twice-exceptional students fall into three broad subgroups: (a) students identified as highly-able who have unidentified learning difficulties,

(b) students identified with learning difficulties whose abilities/talents are unrecognized, and (c) students who are twice-exceptional but remain unidentified, primarily due to masking effects (Brody & Mills, 1997). In all three scenarios, unidentified twice-exceptional students are at risk for negative academic, social, and emotional outcomes. Twice-exceptional students functioning at academic grade-level may be performing well below their potential (Bees, 2009), they may be socially isolated and intensely aware of being different (Assouline & Whiteman, 2011), and they may experience depression, anxiety, withdrawal, aggression, and lowered self-esteem (Bees, 2009).

Educators and parents play important roles in identifying and supporting twice-exceptional students. Although educators may be the first to notice that a child is struggling, awareness about twice-exceptionality is just beginning to grow among regular classroom teachers (Reis et al., 2014). What's more, parents are likely to see students' frustrations at home, but we know relatively little about parents' knowledge and awareness of twice-exceptionality or their experiences supporting their twice-exceptional children.

### **Our Approach to this Study**

Understanding parents' perspectives is critical to supporting successful school experiences for students with exceptionalities (Villeneuve et al., 2013). We chose a pragmatic qualitative approach to this exploratory study because it is ideally suited to describing everyday experiences (Patton, 2002). The main research question was "How do parents become aware that their children are twice exceptional?"

**Positionality.** Qualitative inquiry depends upon interpretations, so in this section I, the first author, reflect upon what drives my interest in this topic. This reflection brackets, or sets aside, my experiences (Creswell, 2013). I grew up in the 1960s and 1970s when little was known about twice-exceptionality and high-ability was believed to be global. My brother was the highest achieving math student at the local high school; he could multiply four-digit by four-digit numbers in his head and he was happiest in a world of charts, graphs, and numbers. However, my brother struggled to learn to read and write. I recall that every night after school he would read to Mom from primary reading books and eventually he did learn to read, although never fluently. Many years later, I discovered my daughter is twice-exceptional, so I set out to become more educated about twice-exceptionality and I mentioned my discoveries to my mom. She speculated that twice-exceptionality might have explained the riddle of my brother's perplexing mix of abilities and difficulties. Sadly, my brother is not with us anymore, but I am motivated to explore this area in support of all twice-exceptional children, and in my brother's memory.

### **Method: Parents Co-create Their Stories**

**Participants.** Participants were five parents of twice-exceptional children, four moms and one dad, from southern Ontario. All participants were Caucasian, and four out of five had post-secondary degrees. All participants were working professionals or business owners, owned their own homes, and had the financial resources to seek independent (i.e., private) psycho-educational assessments for their children.

Participants' children ranged in age from 11 years to early 20s and included two girls and three boys. Each of the children had attended different public schools. Due to privacy regulations, we were unable to access independent confirmation that the children were identified as twice-exceptional by school boards; however, all parents indicated their children had Individual Education Plans (IEPs) to meet their special education needs and four of the parents shared details taken directly from independent assessment reports.

**Procedures.** Prior to commencing the study, we obtained ethics approval from the researchers' university ethics review board. To recruit a range of participants with various twice-exceptionality experiences, we used Patton's (2015) number 13 purposeful maximum variation (heterogeneity) sampling (p. 267). Patton recommends this strategy "(1) to document diversity and (2) to identify important common patterns that are common across the diversity (cut through the noise of variation) on dimensions of interest" (p. 267). Parents who had self-identified as having twice-exceptional children with different identifications were invited to take part in the study. All participants received a letter of information about the study and gave informed consent to participate. The interviewer met with the parents at a convenient time and place. Interviews followed a phenomenological approach, involving an informal, interactive process to elicit personal accounts of parents' experiences as they came to learn their children were twice-exceptional (Patton, 2015). Initial interviews were guided by two key questions: (a) how did you find out your child is twice-exceptional? and (b) what are some of your experiences

parenting your twice-exceptional child? Within this guide, the interviewer took a conversational approach which “offers the interviewer flexibility in probing and in determining when it is appropriate to explore certain subjects in greater depth” (Patton, 2015, pp. 441-441). Using this flexible approach, initial interviews ranged in length between 45 minutes up to two hours. We explained to participants that our goal was to co-create a descriptive vignette with them as partners in the process, and all agreed to share their stories and assist in editing the final vignettes. The interviewer jotted some handwritten notes during the interview, without interrupting the natural flow of the conversation, as the aim was to hear the essence of each parent’s story and elicit memories of how identification occurred (Creswell, 2013). Immediately after the interviews were completed, the interviewer wrote detailed notes on key discussion points. In each case, the interviewer followed up on these details with the parent via email. Based on the notes and follow up emails, we drafted a vignette to illustrate each parent’s experiences with their twice-exceptional child. In each vignette we included some individual characteristics of the child, background on the child’s strengths and weaknesses, and an illustration of how each child’s exceptionalities manifested in a learning environment. Once drafted, the vignettes were emailed to the respective parents so they could be member-checked for accuracy (Patton, 2002). Parents were invited to revise, edit, or add to each vignette. By engaging participants in checking and adding to the vignettes, we aimed to ensure credibility in our findings (Lincoln & Guba, 1985). In all cases, parents added details to the vignettes in their own words.

**Data Analysis.** We used NVivo 10 qualitative data analysis software to organize, code, and query the data so that we could identify commonalities across the diverse range of stories (e.g., Bazeley, 2007). We entered the final vignettes, interview notes, and email correspondence into the software, and used open-coding thematic analysis to identify similarities across cases (e.g., Patton, 2015).

### **Findings: Some of the Many Faces of Twice-Exceptionality**

Each section of our findings includes a brief description of an aspect of twice-exceptionality, followed by a vignette based on parents’ experiences. The vignettes illustrate the following aspects of twice-exceptionality: (a) awareness of student’s struggles, (b) how identification of exceptionalities occurs, and (c) parents’ experiences with gifted/talented children identified with specific learning disorder, attention deficit, autism spectrum disorder, and emotional/behavioral disorder. We have used italics to distinguish the vignettes. Names have been changed to protect participants’ identities.

#### **2e Awareness and Identification**

Early studies suggested that high-ability and learning difficulties were mutually exclusive, a belief known as the Terman myth (Brody & Mills, 1997). The Terman myth was based on the notion of intelligence as a single, global construct that has been attributed to Lewis Terman’s work in the field of gifted education in the early 1900s. Terman reported that students with intelligence quotients (IQs) over 140 were not only intellectually superior to children with lower IQs, but also had superior physique, health, social adjustment, and moral attitudes (Bianco & Leech, 2010). However, since the

1980s, awareness about diversity among highly able students and recognition of twice-exceptionality has increased as theories about intelligence have developed. For example, Gardner's (1983) theory of multiple intelligences added new dimensions to our understanding of intelligence by defining a range of abilities (as cited in Brody & Mills, 1997) and Sternberg's triarchic model described analytical, creative, and practical attributes of intelligence (Sternberg, 1985, 2000). Along with these multi-dimensional theories, research into twice-exceptionality has revealed that some students can and *do* have high-ability coupled with difficulty learning (Trail, 2011).

Despite increasing recognition of twice-exceptionality within the field of gifted education, identification of twice-exceptional students remains a challenge. Because twice-exceptional students may have depressed overall scores on standardized tests, some researchers operationalize high intellectual ability among twice-exceptional children using an intelligence score of 120 on the WISC (e.g., Antshel, 2008). However, most school boards rigidly adhere to a higher score to identify intellectual exceptionality, and some twice-exceptional students fail to meet the criterion (Bianco & Leech, 2010). Nate's story (below) illustrates the situation where a student with high-ability in one area does not receive programming for his strengths due to rigid identification measures.

***Nate's story: I can read, but I can't write.*** *Nate is an only child who loves computer games, complex board games, and drama, and he has been actively involved in theatre since age 5. When Nate was in grade 1, his Mom perceived a disconnect between his*

*delight in reading at home and his relatively poor grades at school. She was also concerned about Nate's profound difficulties with the mechanics of writing. Nate's mom spoke with his teacher about her concerns and wondered if Nate could be referred for an assessment. The teacher responded, "Nate doesn't have any difficulties, he is just lazy". Faced with that response, Nate's parents sought a private psycho-educational assessment with a clinical psychologist. Through the assessment, Nate was identified with a developmental coordination disorder and a specific learning disability affecting written expression, with possible ADHD which the psychologist referred to as "mild". Mom shared the assessment with the school, and they developed an IEP for Nate and provided a personal laptop for assignments. With the aid of a laptop, Nate's written output has improved considerably.*

*However, the assessments also showed that Nate had high-ability in verbal comprehension (97<sup>th</sup> percentile), but his low perceptual reasoning score (10<sup>th</sup> percentile) "pulls down" his overall score to the extent that the school considers he is not eligible for enrichment programming. What's more, even though his reading ability is very high, he has struggled with daily reading assignments, sometimes reading so quickly that he skips words orally. Mum expressed frustration that over the years Nate has been denied both enrichment programming and positive feedback about one of his greatest strengths. Currently in grade 6, Nate is particularly fond of his teacher this year and his report cards have improved. He engages well with older and same age peers in the local theatre group and he enjoys primary roles in local productions. Nate*

*hopes to be an actor when he grows up, or to be a drama teacher as his 'plan b'.*

Nate is a grade 6 student, the youngest twice-exceptional student in our study, and his story is a reminder of the need to promote knowledge and awareness about twice-exceptionality (Foley-Nicpon et al., 2013), and the importance of understanding how learning difficulties can impact overall scores on standardized tests (Nielsen, 2002). His story also underlines the need for sensitivity to the difference between learning difficulties and laziness (Bees, 2009). Nate's mom and dad continue to advocate for his needs at the local school. The school has scheduled a re-assessment of Nate's needs prior to his transition to high school, and it remains to be seen how his story will unfold over time.

## **2e with Specific Learning Disabilities**

Specific Learning Disabilities (SLD) are lifelong and they affect people with average and above average abilities for thinking and reasoning (Learning Disabilities Association of Canada, 2002). They are neurologically based and they adversely affect the brain's ability to store, process, retrieve, or communicate information. Examples of SLD include dyslexia, dyscalculia, dysgraphia, and NVLD. To be identified with SLD, a student must display persistent difficulties in general academic skills such as reading, writing, arithmetic, or mathematical reasoning skills. Academic skills must be "well below the average range of scores in culturally and linguistically appropriate tests of reading, writing or mathematics" taking into account intelligence and age (American Psychiatric Association, 2013, p. 1).

Identifying SLD can be difficult. Salvia, Ysseldyke, and Bolt (2010) describe two approaches: discrepancy and response to intervention (RtI). In the

discrepancy approach, a diagnostician uses standardized achievement and intelligence tests to determine whether a student displays a significant discrepancy between achievement and ability (Salvia et al., 2010). In an RtI approach, teachers measure students' progress over time in response to intensive instruction targeted to areas of weakness. Teachers then identify SLD when a student does not show significant improvement in the targeted areas (Salvia et al., 2010). Neither approach is ideal. The discrepancy approach involves waiting for a student to fail, as it may take a long time for a significant discrepancy to be apparent. (Crepeau-Hobson & Bianco, 2011). The RtI approach may not identify twice-exceptional students who are performing below their potential because they may be at grade-level (McCallum et al., 2013).

Linked to challenges with identification, gifted students with learning disabilities (GLD) often use their intellectual abilities to "compensate for problematic weaknesses" (Baum & Owen, 2004, p. 160). Consequently significant discrepancies may not appear until higher grades. For example, Ferri et al. (1997) found that only 35% of GLD students were identified in elementary school, compared to 54% of non-gifted learning disabled students. In addition, many GLD students develop coping strategies and work extremely hard to hide areas of weakness (Bees, 2009; Reis et al., 2014; Trail, 2011). In Jessica's case (below), Jessica was identified as GLD in Grade 6 as she worked unusually hard to keep up with elementary arithmetic and symptoms of math anxiety began to appear.

***Jessica's story: I'm working hard being GLD. Jessica is second eldest in a family of two girls and two boys. She***

*is a bright-eyed young lady with an outgoing personality and lots of questions about the world. In kindergarten, she loved to build towers out of blocks and line up cars by color. She was (and is!) a bundle of energy, yet always needed more sleep than her siblings.*

*When Jessica was in grade 6 her parents began to suspect something was amiss. Jessica's teacher recommended that Jessica focus on learning multiplication facts, as that was an area of weakness for her. In response, her parents enrolled Jessica in a private tutoring program that was based on math drills. But no matter how hard she tried, Jessica simply could not memorize math facts. Over a three month period Jessica remained at 'level 1' in the program. The program wasn't working; in fact, it reached the point where Jessica experienced anxiety and tears over her nightly math homework. Yet her parents knew Jessica to be a thoughtful and curious child who enjoyed creative problem-solving.*

*Seeking to find some answers to what seemed like a perplexing riddle, Jessica's parents engaged a private psychologist. The psycho-educational evaluation revealed that Jessica's overall IQ was in the 'very superior' range on the WISC, but with a 15 point discrepancy between her general verbal abilities and her general non-verbal abilities. Achievement testing showed that Jessica had patterns of weaknesses in arithmetic and spelling that suggested specific learning disabilities. The psychologist reported, "Jessica is clearly a bright child who is experiencing some processing difficulties." According to the psychologist, as Jessica completed the math testing, she failed to recognize the difference among math symbols*

*(mistaking + for -, etc.). The psychologist's report included the following comment: "Jessica experiences anxiety, frustration and lowered self-esteem when it comes to mathematics and writing. Clearly, her relative weakness in these areas is having significant impact on her psychological well-being."*

*After reading the evaluation report, the school principal recommended that Jessica remain in the regular classroom with accommodations. The school developed an IEP, and Jessica was allowed to use a calculator in math class and a spell-checker on written assignments. These technical aids helped academically, but they also prompted new social difficulties. Other students, perceiving Jessica to be a bright student, questioned why she was allowed to use a calculator—suggesting that she received 'unfair' treatment.*

Both Jessica and her mom appreciated the demystification of Jessica's twice-exceptionality as it provided an explanation of her strengths and struggles (Elfrink, 2008). Jessica continued to work hard and earned two academic awards when she graduated from high school. However, her story illustrates how educational strategies for twice-exceptional students all too often focus on academic weaknesses (Baum & Owen, 2004; Yewchuk & Bibby, 1989) and ignore social issues.

### **2e with ADHD**

Another group of twice-exceptional students are gifted with attention deficits. Students with ADHD may have difficulty sustaining situation appropriate attention and exhibit behaviors such as difficulty with organization, excessive talking or fidgeting, and difficulty paying attention to detail (Baum, Olenchak, & Owen, 1998). Criteria for identification of



ADHD in the most recent Diagnostic and Statistical Manual of Mental Disorders (DSM-5) are divided into two categories: 1) inattention and 2) hyperactivity (American Psychiatric Association, 2013). Formal identification of ADHD is made by a psychiatrist, medical doctor, or mental health professional, although parents and teachers are usually the first to discover signs of ADHD (Weinfeld et al., 2006). Care must be taken in diagnosing gifted students with ADHD due to an overlap in characteristics of giftedness and ADHD (Weinfeld et al., 2006). For example, *hyperactivity* in ADHD appears similar to “overexcitabilities” in giftedness (Antshel, 2008, p. 293). In addition, both gifted and ADHD populations may exhibit impulsive and oppositional behaviors (Antshel, 2008). Compounding this complex identification, students with ADHD have weak working memory skills and inability to sustain attention, so they may be less likely to measure in the top 2% when using the WISC as a measure of intellectual ability (Fugate, Zentall, & Gentry, 2013).

Twice-exceptional students with ADHD may have “significant work production/output difficulties” (Antshel, 2008, p. 297) and “difficulty regulating their emotions, problems with peer relationships, and stressed families” (Moon, Zentall, Grskovic, Hall, & Stormont, 2001, p. 207). Furthermore, some research shows that gifted students with ADHD have lower scores of self-esteem, self-concept, and overall happiness than their gifted peers without ADHD (Foley-Nicpon et al., 2012). Like their twice-exceptional peers with other learning difficulties, twice-exceptional students with ADHD have self-awareness about their differentness (Foley-Nicpon et al., 2012). In Lucy’s story below, her

mom describes how Lucy’s awareness of her own difficulties initiated the identification process.

***Lucy’s story: I know I’m different.*** *Lucy is the youngest child in an active family of sport-lovers. She has two brothers, and all family members engage in different sports including soccer, golf, and swimming. Lucy was a bright, creative student throughout grade school; she enjoyed academic successes and lots of friendships. She was curious, bubbly, and talked continually, in and out of the classroom, which was always a topic of conversation during parent/teacher conferences. Lucy would often tell her mom that she suspected she had Attention Deficit Hyperactivity Disorder. Her mom, a teacher who had taught young boys diagnosed with ADHD, told her she did not, and disregarded Lucy’s self-diagnosis. However, beginning in grade 11, Lucy seemed to hit a wall; academics, which had previously come easily, became a struggle for her. Lucy had no lack of creative ideas for school assignments and projects, but her difficulties with time management and organization made it challenging for her to transform her ideas into final products. Near the end of Grade 11, facing falling grades and self-esteem, Lucy asked for help. She was feeling increasingly anxious about schoolwork, had difficulty focusing in class, and was spending increasing amounts of time working on homework and assignments, yet making little progress.*

*After being assessed by her family doctor and a pediatrician, Lucy was indeed identified as having ADHD. Her mother was quite surprised, as Lucy’s ADHD did not present like any of the boys she had taught who had the same condition. Lucy’s mother also felt guilty,*

*as though she should have listened to Lucy's previous suggestions and started this process years earlier. Lucy started regular counselling sessions and taking Vivanse to address some of her symptoms. Subsequently, with a letter from the pediatrician, an IEP was developed to help meet Lucy's needs; she was allowed extra time on tests, a quiet place to work in school, and extended deadlines on school work. Her mom said that once the IEP was in place, Lucy's anxiety around school work was reduced because she knew supports were there if needed. A number of months were spent varying the medication, in the attempt to find the correct dose. When the dose was too high, she'd sometimes spend hours late into the night hyper-focused on a single paragraph. Due to the medication, Lucy lost her healthy appetite and some weight. Over time, Lucy stopped taking medication. She prided herself on being a social person who loved spending time with friends and when she took her ADHD medication she felt socially awkward, which would just not do.*

As is often the case, Lucy's learning difficulty was not identified until she faced significant struggles in secondary school. With her IEP, Lucy was able to access the supports she needed to successfully complete high school and graduate to university where she studies media arts. The same supports that were in Lucy's secondary school IEP were carried through into her university IEP. She rarely takes advantage of them, but continues to get comfort from the fact that they are available to her.

## **2e with Autism Spectrum Disorder**

Another type of twice-exceptionality involves Autism Spectrum Disorder (ASD). ASD is a communication disorder affecting social communication and behavior that is

identified by a trained mental health professional or doctor using diagnostic criteria outlined in DSM-5. ASD diagnostic criteria recognize two domains of impairment: social communication and interaction, and restricted/repetitive behaviors and interests (Lai, Lombardo, Chakrabarti, & Baron-Cohen, 2013). ASD has dimensional qualities that "exist across a range of severity and expression" (King, Veenstra-VanderWeele, & Lord, 2013, p. 456). Three former categories of disorders, Autistic Disorder, Asperger's and Pervasive Developmental Disorder Not Otherwise Specified (PDD-NOS), are now all classified under ASD in DSM-5.

Twice exceptional students with ASD tend to have difficulties in communication, social skills, sensory integration, and behavior (Weinfeld et al., 2006). They may have trouble focusing on what's important, find it difficult to generalize, have a preference for sameness, and have difficulty with concepts of time. Yet they also may demonstrate a variety of strengths including verbal fluency or precocity, advanced reading skills, ability to remain highly focused, and capacity to memorize facts (Neihart, 2000; Weinfeld et al., 2006). Due to similarities among behaviors associated with both high-ability and ASD, accurate identification of ASD in gifted children requires both a detailed developmental history and an understanding of what underpins their behaviors (Neihart, 2000). For example, students with extremely high intellectual ability sometimes have difficulty finding intellectual peers, and this can sometimes appear to be social impairment (Assouline & Whiteman, 2011). To get the necessary detailed information to make an accurate diagnosis, psychologists must collaborate with

educators and parents before diagnosing 2e ASD (Neihart, 2000). It is also recommended that psychologists tasked with identifying a gifted student with ASD should have expertise in both areas (Assouline & Whiteman, 2011; Neihart, 2000).

Accurate identification of ASD is very challenging. For twice-exceptional students with ASD, a sequential identification often occurs—the most obvious characteristics are often the first to be identified (Baum & Owen, 2004). In Burton's case (below), identification of giftedness and Asperger's occurred separately over a period of years.

**Burton's story: I want to be a regular student.** *Burton is a tall, quiet young man who loves history, is a keen computer-gamer, and has displayed advanced academic skills from a very early age. He is the second eldest in a family of four. Burton arrived in Canada with his family, and was placed a grade ahead of his age-mates into grade 3 due to his demonstrated academic ability. During grade 3, the school administered the Otis-Lennon School Ability Test, a gifted screening tool. As Burton's overall score was in the 99<sup>th</sup> percentile for his age (7 years and 7 months), the school identified him as intellectually gifted, and recommended programming in an ability-grouped, congregated gifted class. He attended the class for a while, but Burton struggled to navigate the social demands of school and was unhappy in the program. He was anxious and upset and didn't want to go to school. His dad recalled moving Burton into a congregated gifted class, which was located in a different school, then back into the regular class in his home school, searching to find the right "fit" for Burton and a school environment that met Burton's complex needs.*

*Eventually, when Burton was 12 years old and in grade 7, his parents took Burton for private testing to find an explanation for some of his behaviors. They were concerned about the amount of time Burton spent alone. The psychologist completed various tests (including parent and teacher rating scales, Behavior Assessment System for Children (2<sup>nd</sup> ed.), and Autism Diagnostic Observation Scale) and noted that Burton "struggled with open ended questions and became quite distressed when he was unable to answer." The report indicated a profile "consistent with a diagnosis of Asperger's Disorder." This identification was added to his student record, and although Dad thought the IEP was "helpful" he said there were no notable changes in accommodations or modifications in response to Burton's ASD diagnosis. Currently in Grade 11, Burton's goal is to be "a regular student." He is considering studying history after he graduates from high school.*

Burton's story emphasizes the important role that parents play in advocating for their twice-exceptional children and the need for ongoing communication between home and school. As in the other vignettes, it was the parents who unearthed the root causes of their child's frustrations with school. They resorted to private testing to reveal the full extent of Burton's needs. And Burton recognizes he has unique needs; his goal to be a regular student reflects his self-awareness of his differentness.

## **2e with Emotional/Behavioral Disability**

Students who are gifted with EBD are among those least often identified as twice-exceptional and they have received little attention in educational research (Morrison, 2001). EBD is a learning

disorder that adversely affects educational performance due to persistent and specific emotional or behavioral problems (Ontario Ministry of Education, 2001). Students with EBD may have difficulty building or maintaining interpersonal relationships, they may have excessive fears or anxieties, and they may be inclined towards compulsive reactions (Salvia et al., 2010). Educators tend to view the EBD label negatively, and professionals working with these students tend to focus on deficits (Rizza & Morrison, 2003). Yet some of the challenging behaviors exhibited by twice-exceptional students with EBD could be attributed to either exceptionality. These behaviors include poor impulse control, anger, intense emotions, isolation from peers, and depression. Due to the interplay of influences, it is recommended that assessment for EBD include contextual and environmental factors to reveal the underlying causes of behaviors (giftedness or EBD) and increase the accuracy of diagnoses (Morrison, 2001).

Unfortunately, twice-exceptional students with EBD are less likely to have access to gifted programming than their non-EBD gifted peers (Morrison, 2001). Research shows that teachers are influenced by EBD labels and much less willing to refer students labelled with EBD to gifted programs (Bianco, 2005). In fact, teachers value compliant behavior more highly than academic performance when making gifted referrals (Bianco & Leech, 2010). David's story (below) illustrates the limitations placed on access to gifted programming for twice-exceptional students with challenging behavior.

***David's story: I can't ride the bus.*** David is an intense, creative young man with a talent for music and a love of

*philosophy. David's mom reflected that from an early age, David found it difficult to relate to same-age peers, typically preferring the company of older children and adults. When he was in Grade 3, the school board completed an educational assessment that revealed David's IQ score to be within the top 2%. As a result, the school identified David with high intellectual ability and developed an IEP for him. Although David should have been eligible for the board's congregated gifted program, David behaved in ways that didn't fit the idealized profile for the program. For example, he had a tendency to get into arguments and sometimes displayed aggressive behavior such as throwing pencils and punching walls—actions that earned him frequent suspensions. School officials demanded that David "learn to behave" before they would allow him to ride the school bus to the gifted class. As a result of this proviso, David remained in the regular classroom with peers he didn't relate to.*

*It wasn't until David was 16 that the underlying reasons for his behavior were identified. Because of his challenging behaviors, David had seen social workers and psychologists over the years, but they routinely dismissed his need for their services. In therapy, David gave the right answers about how to behave in challenging situations, so his therapists reported that he simply had to apply this knowledge. In much the same way as his teachers placed the onus on David to 'behave', his therapists placed a similar responsibility on David's shoulders. It wasn't until David reached crisis point and was hospitalized for his symptoms that he was finally diagnosed with bi-polar disorder and generalized anxiety disorder. In fact, David had experienced symptoms of depression and suicidal thinking since the age of 8 years.*

*Despite exhibiting challenging behavior, David's internal struggles with EBD had remained unidentified for many years. Therapists and educators alike had suggested that David needed to change his behavior, without recognizing his mental health issues. He recently expressed that throughout his life he has often looked at himself through a deficit lens, feeling that there must be something 'wrong', rather than accepting himself for who he is, and appreciating that his quirks are an embraceable part of his personality—not something to accept or conquer. As a young adult, David continues to struggle with the twice-exceptional extremes of high intellect and mental health issues.*

Throughout his school years, David's mom provided support and advocacy for David, and now he advocates for people with mental health issues. He has spoken about his experiences to various audiences including school board staff, the Ontario Ministry of Education, high-school students, parent support networks, and mental health professionals. David's story is a powerful reminder that twice-exceptional children grow into twice-exceptional adults.

### **Discussion**

Although twice-exceptionality is complex, unique, and multi-faceted, parents of twice-exceptional children told stories of their experiences that highlighted some commonalities. In our discussion, we describe these commonalities in light of existing research.

Although we acknowledge that all children have strengths and weaknesses, we heard from parents that twice-exceptional children have such extreme strengths and weaknesses that schooling can be an exercise in frustration.

Research suggests that these frustrations can contribute to negative outcomes such as feelings of academic ineptitude, anxiety or fear of failure in academic tasks, and academic under achievement (Baum & Owen, 2004; Bees, 2009; Neihart, 2008). Reis et al., (2000) found that almost half of the participants in their study of twice-exceptional students in post-secondary education had sought counselling to “reconcile some of the problems and mixed messages they encountered in their educational experiences” (p. 132). Similarly, Yssel et al. (2010) found 61% of twice-exceptional students experienced social-emotional problems. In our study, parents told how frustrations manifested at home in tears, anxiety, and self-doubt. Every one of their children had experienced some level of frustration due to their twice-exceptionality.

Parents were passionate in their support for their children and drew upon their resources to advocate for the best possible outcomes. Participants in our study were working professionals and business owners of Caucasian ancestry and in all cases were the initiators in the identification process. Research shows that race and socioeconomic factors are associated with the identification of exceptionalities (Ambrose, 2002, 2013). In particular, students of color (Carman & Taylor, 2010) and economically disadvantaged students (Borland & Wright, 1994) tend to be underrepresented among students identified as gifted. Conversely, children from families with a level of economic privilege have opportunities and resources such as private assessments, counselling, and tutoring services. In every case in our study, parents sought assistance beyond the educational system; they felt driven to seek out (and

pay for!) independent, private assessments to better understand their children's needs. Although our findings suggest that schools do respond to private assessments by developing IEPs for identified exceptionalities, in our study, parents initiated the assessment process in response to the frustrations their children experienced in school. This finding raises concerns about how less privileged families with twice-exceptional children can be supported.

Our findings echoed research by Baum and Owen (2004) who found that once identified, educators focus their responses on academic support in areas of weakness and management of inappropriate classroom behavior rather than support in areas of strength. Identified twice-exceptional students tend to receive accommodations such as extra time on tests (see Lucy and Burton) or technological aids (see Jessica) rather than referral for gifted programming options (see David).

We also heard that twice-exceptional students can experience intense differentness, yet yearn to be accepted. Some twice-exceptional students, like David, find acceptance among older students. Others, like Burton, feel misunderstood and just want to be like everyone else. Both Jessica and Lucy felt distanced from peers under the pressure of working hard to keep up. When twice-exceptional students experience isolation in school, they can experience high levels of stress (Reis et al., 2000) and may be at risk for anxiety and depression (Baum & Owen, 2004). Parents and educators can look for emotional signs of twice-exceptionality including unrealistically high self-expectations, feelings of academic ineptitude, confusion about abilities, anxiety or fear of failure in academic

tasks, and sensitivity to criticism of work, even constructive criticism (Bees, 2009).

Taken together, we were somewhat surprised to see how similar parents' experiences were, given that their children had distinctly different identified needs. From the parents' perspective, having a child who is highly-able yet experiences learning difficulties can be challenging, confusing, and frustrating. The parents in our study were strong advocates for their children, going outside the school system to find answers to the paradoxical experience of parenting a child who is both able and struggling. Indeed, parents in this study were keen to share their experiences in the hopes that their insights might help others. Although our sample size was small, our findings suggest that parents are often the first to recognize and act upon their children's frustrations, yet we cannot assume that parents have the skills and expertise to identify twice-exceptionality. No doubt, parents who do not have the resources to seek additional help are at an even greater disadvantage.

### **Implications**

First, schools and families need to work together to strengthen efforts to recognize and support the unique needs of twice-exceptional students. To meet this goal, we must use a broad range of identification strategies (Bees, 2009; Brody & Mills, 1997; Morrison & Rizza, 2007; Trail, 2011). For example, educators should keep in mind that—as in Nate's story—learning difficulties can depress students' overall test scores (Nielsen, 2002). In addition, educators and parents need to be aware that students who find school particularly tiring may be twice-exceptional students (Bees, 2009). Like Jessica and Lucy, these students are working hard to cope with their learning difficulties. Furthermore,

teachers who are open to including students with disabilities in gifted screening have an increased chance of finding these hidden students (Whitmore, 1981). Educators should also be aware of how race and socioeconomic status can influence identification of exceptionalities (Ambrose, 2013).

In terms of academic supports, twice-exceptional students have diverse gifts and talents, and educators are ideally situated to support the development of these strengths (Bees, 2009; Nielsen & Higgins, 2005; Weinfeld et al., 2006). In contrast, focusing academic interventions on areas of weakness can inadvertently intensify students' already low sense of academic self-efficacy and negative perceptions of self-worth (Baum & Owen, 1998).

Regarding social-emotional supports, many twice-exceptional students feel isolated and frustrated rather than accepted in school (Bees, 2009; Jackson, 1998; Yssel et al., 2010). Students need to feel a sense of acceptance and belonging to build self-esteem, confidence, achievement, and respect for others and self (Baum, 1994). Twice-exceptional students often do not feel a sense of belonging because they are aware of being different (Bees, 2009). In their research on social exclusion in schools, Nowicki, Brown, and Stepien (2014) found that differentness is a key element in "driving the act of socially excluding children" (p. 9). Twice-exceptional students may feel such differentness twice-over; they do not necessarily fit into either the gifted population or among students who have single-exceptionality learning difficulties. Difficulty establishing connections can add to twice-exceptional students' feelings of loneliness and isolation (Yssel et al., 2010). Therefore,

educators must be aware of these social challenges and work to foster a sense of belonging to lessen the potential for negative social and emotional outcomes among twice-exceptional students (Baum, 1994; Bees, 2009).

Another way to support positive social-emotional outcomes for twice-exceptional students is by helping them find true peers (Bees, 2009; Jackson, 1998; Yssel et al., 2010). Gifted adolescents crave a safe haven where they can relate to others and feel free to express themselves (Jackson, 1998). But twice-exceptional students may be rejected by typically-developing peers because they have few shared interests (Yssel et al., 2010). To find peers with shared interests, some high-ability students choose acceleration (Dare & Nowicki, in press), a flexible pacing option that responds to "individual differences in students' rates of learning and development" (Kanevsky & Clelland, 2013, p. 232). Acceleration is one way to nurture gifts and talents among twice-exceptional students (Weinfeld, Barnes-Robinson, Jeweler, & Shevitz, 2002) as well as connect twice-exceptional students with peers who have similar interests.

### **Future Research**

Our study showed remarkable similarities among the experiences of parents of twice-exceptional children. However, our sample size was small, and limited to southern Ontario. Future research could examine the experiences of other families in other educational settings. As we found that parents were initiators in identifying their twice-exceptional children, future studies could examine knowledge and awareness about twice-exceptionality among parents. Although our study examining how parents became aware of their children's

twice-exceptionality is important as a first step in exploring parents' perceptions, further research could look more deeply at how parents respond to that identification.

### **Concluding Thoughts**

Although no two twice-exceptional students are the same, there are common threads among these stories. Identification of twice-exceptionality is important but difficult. Students struggling with twice-exceptionality often remain unrecognized until higher grades and identification of exceptionalities may not occur until parents seek professional help. Because identification is so challenging, twice-exceptional learners are hidden in our classrooms, often moving from grade to grade with their educational, social, and emotional needs unmet (Baum & Owen, 2004). Parents see their children's frustrations and must take a strong advocacy role, yet they need the resources to fulfil this role. Once identified, schools may hesitate to offer twice-exceptional students programming to develop their talents, focusing instead on academic weaknesses. As a consequence, twice-exceptional students are at risk of failing to reach their full potential, and of seeing themselves through a deficit lens.

Despite the potential for negative outcomes, there is room for optimism. Parents in our study spoke about positive outcomes that can be achieved as their twice-exceptional children grow into adulthood. Like David, twice-exceptional children can become strong advocates for self and others. Although Lucy still struggles with time management, her achievements in university have been positive, and she is confident in seeking out help when needed. Jessica acknowledges her spelling and arithmetic

weaknesses, and now works in a field which draws on her strengths in spatial planning and design. Of course, our sample included only parents who had sought their own explanations for why their children struggled in school. These parents provided strong support for their children, which undoubtedly contributed to their successes.

We'd like to conclude with a quote from David's mom that captures some of the essence of parents' struggles with identification and diagnosis of their twice-exceptional children. David recently told his mom that throughout his childhood he had experienced an over-emphasis on diagnosis and not enough time spent trying to understand him as an individual. She told us he feels that "overall acceptance will help him to move forward in life as it stands, rather than always feeling a need to fix something."



### References

- Ambrose, D. (2002). Socioeconomic stratification and its influences on talent development: some interdisciplinary perspectives. *Gifted Child Quarterly*, 46, 170–180. doi:10.1177/001698620204600302
- Ambrose, D. (2013). Socioeconomic inequality and giftedness: suppression and distortion of high ability. *Roeper Review*, 35(July 2012), 81–92. doi:10.1080/02783193.2013.766960
- American Psychiatric Association. (2013). *Attention Deficit/Hyperactivity Disorder*. Retrieved from <http://www.dsm5.org/Documents/ADHD%20Fact%20Sheet.pdf>
- American Psychiatric Association. (2013). *Specific learning disorder*. Retrieved from <http://www.dsm5.org/Documents/Specific%20Learning%20Disorder%20Fact%20Sheet.pdf>
- Assouline, S. G., & Whiteman, C. S. (2011). Twice-exceptionality: Implications for school psychologists in the post-IDEA 2004 era. *Journal of Applied School Psychology*, 27(4), 380-402. doi:http://dx.doi.org/10.1080/15377903.2011.616576
- Baum, S. M. (1994). Meeting the needs of gifted/learning disabled students: How far have we come? *Journal of Secondary Gifted Education*, 5(3), 6-22.
- Baum, S. M., & Olenchak, F. R. (2002). The alphabet children: GT, ADHD, and more. *Exceptionality*, 10(2), 77-91. doi:http://dx.doi.org/10.1207/S15327035EX1002\_3
- Baum, S. M., Olenchak, F. R., & Owen, S. V. (1998). Gifted students with attention deficits: Fact and/or fiction? or, can we see the forest for the trees? *Gifted Child Quarterly*, 42(2), 96-104. doi:http://dx.doi.org/10.1177/001698629804200204
- Baum, S. & Owen, S. (1988). High ability/learning disabled students: How are they different? *Gifted Child Quarterly*, 32, 226-230. doi: 10.1177/001698628803200305
- Baum, S.M & Owen, S.V. (2004). *To be gifted & learning disabled*. Creative Learning Press, Mansfield, CT.
- Bazeley, P. (2007). *Qualitative Data Analysis with NVivo*. Sage Publications (Vol. 2nd, p. 217).
- Bees, C. (2009) Gifted and learning disabled: A handbook. Vancouver School Board. From <http://www.vsb.bc.ca/sites/default/files/school-files/Programs/GiftedLDHandbook.pdf>
- Bianco, M. (2005). The effects of disability labels on special education and general education teachers' referrals for gifted programs. *Learning Disability Quarterly* 28(4), 285-291.
- Bianco, M., & Leech, N. L. (2010). Twice-exceptional learners: Effects of teacher preparation and disability labels on gifted referrals. *Teacher Education and Special Education*, 33(4), 319-334.
- Borland, J. H., & Wright, L. (1994). Identifying young, potentially gifted, economically disadvantaged students. *Gifted Child Quarterly*, 38, 164–171.
- Brody L.E. & Mills, C.J. (1997). Gifted children with learning disabilities: A review of the issues. *Journal of Learning Disabilities*, 30 (3) 282-286.
- Carman, C. A., & Taylor, D. K. (2010). Socioeconomic status effects on using the Naglieri Nonverbal Ability Test (NNAT) to identify the gifted/talented. *The Gifted Child Quarterly*, 54(2), 75-84.

- Crepeau-Hobson, F., & Bianco, M. (2011). Identification of gifted students with learning disabilities in a response-to-intervention era. *Psychology in the Schools*, 48(2), 102-109. doi:10.1002/pits.20528
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Dare, L., & Nowicki, E.A. (2015). Conceptualizing concurrent enrollment: Why high-achieving students go for it. *Gifted Child Quarterly*, 59(4), 249-264. doi:  
[10.1177/0016986215597749](https://doi.org/10.1177/0016986215597749)
- Elfrink, M. W. (2008). *Helping students understand and accept their learning disabilities: The demystification conference*. Retrieved from <http://www.ldonline.org/article/6157/>
- Ferri, B. A., Gregg, N., & Heggoy, S. J. (1997). Profiles of college students demonstrating learning disabilities with and without giftedness. *Journal of Learning Disabilities*, 30(5), 552-559. doi:<http://dx.doi.org/10.1177/002221949703000511>
- Foley-Nicpon, M., Assouline, S. G., & Colangelo, N. (2013). Twice-exceptional learners: Who needs to know what? *Gifted Child Quarterly*, 57(3), 169-180. doi:<http://dx.doi.org/10.1177/0016986213490021>
- Foley-Nicpon, M., Rickels, H., Assouline, S. G., & Richards, A. (2012). Self-esteem and self-concept examination among gifted students with ADHD. *Journal for the Education of the Gifted*, 35(3), 220-240. doi:<http://dx.doi.org/10.1177/0162353212451735>
- Fugate, C. M., Zentall, S. S., & Gentry, M. (2013). Creativity and working memory in gifted students with and without characteristics of attention deficit hyperactive disorder: Lifting the mask. *Gifted Child Quarterly*, 57(4), 234-246. doi:<http://dx.doi.org/10.1177/0016986213500069>
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York, NY: Basic Books.
- Jackson, P. S. (1998). Bright star—black sky: A phenomenological study of depression as a window into the psyche of the gifted adolescent. *Roeper Review: A Journal on Gifted Education*, 20(3), 215-221. doi:<http://dx.doi.org/10.1080/02783199809553894>
- Kanevsky, L. S., & Clelland, D. (2013). Accelerating gifted students in Canada: Policies and possibilities. *Canadian Journal of Education*, 36(3), 229-271.
- King, B. H., Veenstra-VanderWeele, J., & Lord, C. (2013). DSM-5 and autism: Kicking the tires and making the grade. *Journal of the American Academy of Child & Adolescent Psychiatry*, 52(5), 454-457.
- Lai, M., Lombardo, M. V., Chakrabarti, B., & Baron-Cohen, S. (2013). Subgrouping the autism "spectrum": Reflections on DSM-5. *PLoS Biology*, 11(4).
- Learning Disabilities Association of Canada. (2002). *Official definition of learning disabilities*. Retrieved from <http://www.ldac-acta.ca/en/learn-more/ld-defined.html>
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic Inquiry*. Newbury Park, CA: Sage Publications.
- McCallum, R. S., Bell, S. M., Coles, J. T., Miller, K. C., Hopkins, M. B., & Hilton-Prillhart, A. (2013). A model for screening twice-exceptional students (gifted with

- learning disabilities) within a response to intervention paradigm. *The Gifted Child Quarterly*, 57(4), 209.
- Moon, S. M., Zentall, S. S., Grskovic, J. A., Hall, A., & Stormont, M. (2001). Emotional and social characteristics of boys with AD/HD and giftedness: a comparative case study. *Journal for the Education of the Gifted*, 24(3), 207–247.
- Morrison, W. F. (2001). Emotional/behavioral disabilities and gifted and talented behaviors: Paradoxical or semantic differences in characteristics? *Psychology in the Schools*, 38(5), 425-431. doi:<http://dx.doi.org/10.1002/pits.1031>
- Morrison, W. F., & Rizza, M. G. (2007, Fall). Creating a toolkit for identifying twice-exceptional students. *Journal for the Education of the Gifted*, 31, 57-76,117-118.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.
- Neihart, M. (2000). Gifted children with Asperger's syndrome. *Gifted Child Quarterly*, 44(4), 222-230. doi:<http://dx.doi.org/10.1177/001698620004400403>
- Neihart, M. (2008). *Identifying and providing services to twice exceptional children*. Springer Science + Business Media, New York, NY.  
doi:[http://dx.doi.org/10.1007/978-0-387-74401-8\\_7](http://dx.doi.org/10.1007/978-0-387-74401-8_7)
- Nielsen, M. E. (2002). Gifted students with learning disabilities: Recommendations for identification and programming. *Exceptionality*, 10(2), 93-111.  
doi:[http://dx.doi.org/10.1207/S15327035EX1002\\_4](http://dx.doi.org/10.1207/S15327035EX1002_4)
- Nielsen, M. E., & Higgins, L. D. (2005). The eye of the storm : services and programs for twice-exceptional learners. *Teaching Exceptional Children*, 38(1), 8–15.
- Nowicki, E. A., Brown, J., & Stepien, M. (2014). Children's thoughts on the social exclusion of peers with intellectual or learning disabilities. *Journal of Intellectual Disability Research*, 58(4), 346-357. doi:<http://dx.doi.org/10.1111/jir.12019>
- Ontario Ministry of Education. (2001). Special education: A guide for educators. Retrieved from <http://www.edu.gov.on.ca/eng/general/elemsec/speced/guide/specedhandbooke.pdf>
- Patton, M.Q. (2002). *Qualitative research and evaluation methods* (3<sup>rd</sup> ed.). Thousand Oaks: Sage.
- Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). Thousand Oaks, CA: SAGE.
- Reis, S.M., Baum, S.M., & Burke, E. (2014). An Operational Definition of Twice-Exceptional Learners: Implications and Applications. *Gifted Child Quarterly*, 58(3), 217-230. doi: 10.1177/0016986214534976
- Rizza, M. G., & Morrison, W. F. (2003). Uncovering stereotypes and identifying characteristics of gifted students and students with emotional/behavioral disabilities. *Roeper Review*, 25(2), 73-77.
- Salvia, J., Ysseldyke, J. E., & Bolt, S. (2010). *Assessment in special and inclusive education* (11th ed.). Belmont, CA: Wadsworth/Cengage Learning.
- Steenbergen-Hu, S., & Moon, S. M. (2011). The effects of acceleration on high-ability learners: A meta-analysis. *Gifted Child Quarterly*, 55(1), 39-39-53.  
doi:10.1177/0016986210383155
- Sternberg, R. J. (1985). *Beyond IQ: A triarchic theory of human intelligence*. New York: Cambridge University Press.
- Sternberg, R. J. (2000). Patterns of giftedness: A triarchic analysis. *Roeper Review: A Journal on Gifted Education*, 22(4), 231-235.

- Trail, B. A. (2011). *Twice-exceptional gifted children: Understanding, teaching, and counseling gifted students*. Prufrock Press, Waco, TX.
- Villeneuve, M., Chatenoud, C., Hutchinson, N. L., Minnes, P., Perry, A., Dionne, C., . . . Weiss, J. (2013). The experience of parents as their children with developmental disabilities transition from early intervention to kindergarten. *Canadian Journal of Education*, 36(1), 4-43.
- Weinfeld, R., Barnes-Robinson, L., Jeweler, S., & Roffman-Shevitz, B. (2006). *Smart kids with learning difficulties: Overcoming obstacles and realizing potential*. Waco, TX: Prufrock Press.
- Weinfeld, R., Barnes-Robinson, L., Jeweler, S., & Shevitz, B. (2002). Academic programs for gifted and talented/learning disabled students. *Roeper Review*, 24(4), 226-233.
- Whitmore, J.R. (1981). Gifted children with handicapping conditions: A new frontier. *Exceptional Children*, 48, 106-114.
- Yewchuk, C. R., & Bibby, M. A. (1989). The handicapped gifted child: Problems of identification and programming. *Canadian Journal of Education*, 14(1), 102-108.
- Yssel, N., Prater, M., & Smith, D. (2010). How can such a smart kid not get it? Finding the right fit for twice-exceptional students in our schools. *Gifted Child Today*, 33(1), 54-61.