What Experts Know and Parents Need to Know About Students with Gifts and Learning Disabilities in British Columbia:

A Review of the Literature and Guide for Parents

by

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Abstract

Twice-exceptional students, those with both gifts and learning disabilities are a distinctive group of students. These students are often misunderstood and misdiagnosed. They require support for both of their exceptionalities in order to reach their maximum learning potential in school. This project consists of two separate pieces of work. The first section is a literature review that assesses and reports what is currently understood about students with both gifts and learning disabilities. It includes an overview of research and scholarly reviews focused on students with gifts and learning disabilities, and explored the complexity inherent in identifying, assessing and educating twice-exceptional students in British Columbia. The second section is a parent handbook. Concepts from the scholarly literature that are often confusing for parents as their children make their way through the public school system in British Columbia.

Keywords: Twice-exceptional, gifted; learning disabled, G/LD, 2e.

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List of Acronyms

2e	Twice-exceptional.
ADHD	Attention Deficit Hyperactivity Disorder
ANOVA	Analysis of Variance
ASD	Autism Spectrum Disorder
BC	British Columbia
BCTF	British Columbia Teachers Federation
CogAT	Cognitive Abilities Test
CTCS	Canadian Test of Cognitive Skills
EBD	Emotional Behavioral Disorder
FSIQ	Full scale Intelligence Quotient
GAI	General Abilities Index
G/LD	Gifted Learning Disabled
GOLD	Gifted Learning Disabled program of the Vancouver School Board
IDEA	Individuals with Disabilities Education Act
IEP	Individual Education Plan
IQ	Intelligence Quotient
NAGC	National Association for Gifted Children
PRI	Perceptual Reasoning Index
Rtl	Response to Intervention
SFU	Simon Fraser University
SLD	Specific Learning Disability
US	United States
VCI	Verbal Comprehension Index
WIAT	Wechsler Individual Achievement Test
WISC	Wechsler Intelligence Scale for Children
WJIII	Woodcock Johnson III tests of achievement
WJIII- DRB	Woodcock Johnson III Diagnostic Reading Battery

Glossary

Assessment	eligibility for special education services must be determined using a variety of assessments. A number of different assessment tools may be used to determine a student's eligibility for special services, yet no official education classification system is set up either nationally or provincially in Canada. The purpose of assessment and evaluation is to plan and implement an educational program to help the student learn (BC Ministry of Education, 2011).
Gifted	a student is considered gifted when she/he possesses demonstrated or potential abilities that give evidence of exceptional high cognitive capabilities (BC Ministry of Education, 2011).
G/LD	a combined term that describes a learner who has both gifts and learning disabilities G/LD is also sometimes written as G/LD. G/LD is a specific type of twice-exceptionality.
Identification	the process of identification in BC schools varies greatly depending on the category in which a student requires identification. In order for the school to receive supplementary funds for students who meet Level 1, 2 or 3 unique needs, these students need to be assessed and identified according the criteria set out by the BC Ministry of Education guidelines.(BC Ministry of Education, 2011).
Learning Disability	a learning disability refers to one of a number of disorders that affects the brain's ability to receive, process, store, respond to and communicate information. It is not the same as an intellectual disability. These disorders affect learning in individuals who otherwise demonstrate at least average abilities essential for thinking and/or reasoning. People with LD are of average or above-average intelligence. As such, learning disabilities are distinct from global and intellectual disabilities (BC Ministry of Education, 2011).
Twice-exceptional	this term refers to a person who, alongside being considered intellectually gifted, is formally diagnosed with one or more disabilities. The disabilities are varied and may include a diagnosis of ADHD, Asperger's, Learning Disability, Obsessive Compulsive Disorder, Emotional Fragility or any other disability that interferes with the student's ability to learn

Chapter 1.

What Experts Know and Parents Need to Know About Students with Gifts and Learning Disabilities in British Columbia: A Review of the Literature

1.1. Introduction

"For years, gifted and special education students were thought to be at opposite ends of the intelligence spectrum" (Trail, 2011, p. ix). Of course, we now know this is far from the truth; but, it was not until the 1970's, however, that educators realized gifted students could also have disabilities (Trail, 2011); though twice-exceptional students have been noted throughout history (Krochak & Ryan, 2007). For almost four decades now, students with high abilities and concomitant learning disabilities have been acknowledged and studied by experts and researchers in the fields of psychology and education.

This project has two parts. This first section is a scholarly literature review, which re-examines and synthesizes what is known about these students. Its purpose is to critically report what the experts in this expanding field currently understand about students with both gifts and learning disabilities and to compact decades of studies into a short coherent report. The second section is a handbook written for parents of twice-exceptional children in less formal language. It was written with the hope that it will allow parents of students with gifts and learning disabilities in BC to gain the knowledge they need to support their children in their educational journey.

To this day, there is no single definition in the Canadian education system for this group of students. In BC there is no consensus on how to assess and diagnose students who have both gifts and learning disabilities. Nor is there a provincially recommended plan on how to help them reach their full academic potential in school.

"Students who are twice-exceptional remain a misunderstood population in schools, thus making identification that much more difficult" (Morrison & Rizza, 2007, p. 57).

Finding empirically reported numbers of twice-exceptional students in the literature has proven futile. There are no clear statistics reported in the literature as to the number of students who have been identified as twice-exceptional. Experts tell us one reason for this is that "the issue of prevalence is complicated by the fact that there is no clear definition of what does, or does not, constitute twice-exceptionality" (Foley-Nicpon, Allmon, Sieck, & Stinson, 2011, p. 4). It is difficult, therefore, to estimate the actual number of twice-exceptional students in BC.

At present, in BC, there has been an increase in students enrolled with a designation of "learning disability" from 14,804 students in 2001/2002 to 18,174 students in 2011/2012. However, there has been a large decrease in students identified as "gifted" in BC due to a reduction in Gifted programs available in BC because of Provincial Government funding cuts to the Gifted Program. According to the BC Teachers Federation (BCTF) statistics, "there are 10,236 fewer students in the Gifted program in 2011–12 than in 2001–02" (BCTF, 2012, p. 13). The number of students reported in each designation is available, but due to the BC policy that a student may only have one Provincial designation, there in theory will never be statistically accurate numbers reported on twice-exceptional students.

It is the BC Ministry of Education's policy that if students do not receive special services, they are not reported to the Ministry of Education nor reflected in BC's provincial learning disability statistics (BC Ministry of Education, 2011), so it is likely that the numbers reported are far lower than the actual count of students who have gifts, learning disabilities, or are twice-exceptional. A 2012 BCTF report says that enrolment figures reported by the Ministry of Education only "reflect the number of students identified with a special needs designation, and do not include students awaiting assessment, students in need of learning support who have no designation/planned assessment, or students who are not designated because there are no longer programs to support them (i.e., Gifted program)" (p. 13). In addition, in BC, a student's name can only be reported for one designation. At the provincial level, the reporting system does

not allow for dual exceptionalities to be reported, though it does at the district and school level. This would also greatly influence the available statistics reported.

Students with incredible strengths and high potential who also possess significant cognitive learning difficulties are often overlooked and under-served in the school system (Brody & Mills, 1997). Students who have been identified as gifted but who also display disabilities, remain under-indentified in both special and gifted education programs (Morrison & Rizza, 2007). The separate protocols used to identify students for gifted and special education fail to consider the unique characteristics of students with both exceptionalities (Trail, 2011). "The absence of knowledge about the consequences of the coincidence of gifts and disabilities has resulted in misidentification and minimal services for many students" (Ruban & Reis, 2005). "Twice exceptional students are atypical learners who are often characterized as smart students with school problems" (Beckley, 1998, n.p.). Due to their level of intelligence, they often compensate for their problems and maintain average school marks. This can result in twice-exceptional learners avoiding the attention of special education professionals. These students may not be diagnosed, or they may be misdiagnosed in regard to their learning abilities and needs.

It is unfortunate, but true, that some educators still believe that even "if the achievement is significantly below the person's potential, there is no learning disability as long as the person's achievement is average" (Webb, Amend, Webb, Goerrs, Beljan, & Olenchak, 2005, p. 141). Parents of students with both gifts and learning disabilities are often overwhelmed with the task of advocating to receive the best education possible for their child. While teachers want the best for their students, they are often overwhelmed as well, and are not able to easily identify the possibly twice-exceptional student (Naylor, 2002). Thus we look to the experts to pass on the knowledge of their years of research with this special population of under-recognized and under-served students. Twice-exceptional learners are at risk when their cognitive, academic, social, and emotional needs are not met (Trail, 2011). Perhaps the struggle is best summed up by Besnoy; "everyone with a vested interest in the well-being of gifted and learning disabled students must be committed to providing them with an appropriate education" (2006, p.5).

1.2. Defining the Gifted and Learning Disabled (G/LD) Twice-exceptional Student

The term twice-exceptional can also refer to many other dual conditions such as students with high potential and ADHD or a child diagnosed with Asperger's syndrome who also has exceptional gifts and talents. Much of what is written here may in fact be relevant to other exceptional learners who face challenges; but, for the purposes of this paper, when the term twice-exceptional (2e) is used, it is referring only to students who would be designated as having one or more "gifts" as well as learning disabilities by the Ministry of Education in BC.

"Defining giftedness, with or without disabilities, is a complex and often controversial task" (Crepeau-Hobson & Bianco, 2011, p. 102). Reis & Renzulli, (2009) tell us that there is no more diverse a group of people than the gifted and talented. BC educator and author Bees (2009) also reminds us that when looking at any definition put forth for students who have both gifts and learning disabilities, one must remember that this is a heterogeneous group. Each student will manifest a different version of this condition and using separate definitions of giftedness and disabilities is problematic (Trail, 2011).

There are many ways to define the term "gifted", and after many decades of trying, experts in this specialization have yet to come to a consensus on the term. Lovett and Sparks (2011) tell us that "there are almost as many definitions as there are scholars" (p.305). The definition of a Learning Disability also varies. Therefore, putting both of these terms together to create a definition of a student who is "twice-exceptional" has been a continual challenge for experts. Blancher (2002) has defined twice-exceptionality as a student who has abilities in the gifted range as well as significant learning challenges. This definition is a starting point but lacks depth. Brody and Mills (1997) expanded further saying that "students who are gifted and also have learning disabilities are those who possess an outstanding gift or talent and are capable of high performance, but who also have a learning disability that makes some aspect of academic achievement difficult" (p. 282). These students, who have gifts and learning disabilities, are referred to as twice-exceptional learners.

The following definitions come from the BC Special Education Services Manual of Policies (2011):

1.2.1. E.4 Gifted

A student is considered gifted when she/he possesses demonstrated or potential abilities that give evidence of exceptional high capability with respect to intellect, creativity, or the skills associated with specific disciplines. Students who are gifted often demonstrate outstanding abilities in more than one area. They may demonstrate extraordinary intensity of focus in their particular areas of talents or interest. They may also have accompanying disabilities and should not be expected to have strengths in all areas of intellectual functioning (p.52).

1.2.2. E.3 Learning Disabilities

Learning disabilities refers to a number of disorders that may affect acquisition, organization, retention, understanding or use of verbal or nonverbal information. These disorders affect learning in individuals who otherwise demonstrate at least average abilities essential for thinking and/or reasoning. As such, learning disabilities are distinct from global and intellectual disabilities. Learning disabilities result from impairments and one or more processes related to perceiving, thinking, remembering, or learning. These include, but are not limited to: language processing, phonological processing, visual spatial processing, processing speed, memory and attention, and executive functions. Learning disabilities range in severity may interfere with the acquisition and use of one or more of the following; oral language, reading, written language, or mathematics.

Learning disabilities are life-long. The way in which they are expressed may vary over an individual's lifetime, depending on interaction between the demands of the environment and individual strengths and needs. Learning disabilities are suggested by an unexpected academic underachievement achievement that is maintained only by unusually high levels of effort and support. Learning disabilities can interfere with a student meeting his or her intellectual and life potential. Learning disabilities result in unexpected academic underachievement. Learning disabilities may impact the acquisition, organization, understanding, retention and/or use of information (p. 46).

At present there is no section for twice-exceptional students in the BC Ministry of Education Policy Manual though the Ministry does acknowledge that both gifts and disabilities may exist within one student (BC Ministry of Education, 2011, p. 52). Many other definitions have been put forth to help grow the further understanding of these terms. One such definition is used by the Alberta Ministry of Education. They have combined multiple definitions for gifted and learning-disabled found in the literature and it has resulted in the following definition. "A gifted/learning-disabled (G/LD) student is a student of superior intellectual ability who demonstrates a significant discrepancy between their level of performance in a particular academic area and their expected level of performance based on their intellectual ability" (Krochak & Ryan, 2007, p. 46). In addition to superior intellectual ability and a performance/potential discrepancy, the province of Alberta also requires a processing deficit to be evident for a designation of G/LD (Krochak & Ryan).

The Colorado Department of Education (2009) has published an entire handbook on identifying twice-exceptional students. Their definition expands on the Alberta definition above. Colorado defines a twice-exceptional student as one who is identified as gifted and talented in one or more areas of exceptionality (specific academics, general intellectual ability, creativity, leadership, visual or performing arts); and who is also identified with a specific learning disability (Colorado Department of Education, 2009, p.9).

Because criteria used to establish giftedness and learning disabilities vary between provinces and even within each province at the school district level, it is almost impossible to do a true comparison. It would be useful if each province in Canada had a strong definition of who a twice-exceptional student with gifts and disabilities is since unlike the United States, there is no Federal Education office and no Federally regulated Individuals with Disabilities Education Act (IDEA). Based on section 607(e) of the IDEA, its regulations do provide protections for students with high cognition and disabilities who require special education and related services to address their individual needs (United Stated Department of Education, 2010).

There has been much research done and quoted, but one of the most oft cited expert opinions is that of Brody & Mills (1997). They say that too often educators try to describe students with learning disabilities who also have gifts by "drawing heavily on definitions of each exceptionality separately; yet, a lack of consensus is evident in definitions of giftedness or learning disabilities, and the implications of the two conditions overlapping have not been adequately considered" (1997 p.284).

In 2013, there is still no clearly defined profile of the twice-exceptional student because the nature of students with dual exceptionalities is so varied. Brody and Mills (1997) assert that trying to find one defining pattern or set of scores to identify all students who have both gifts and learning disabilities is probably futile. Baum (1989) suggests that the reason we do not yet have a universal acceptance that twiceexceptionality exists in one person is because of the faulty and incomplete understanding of the term.

More than two decades ago, Baum claimed that "for many people the terms learning disability and giftedness are opposite[s]" and the "experts in each of these disciplines have difficulty reaching agreement" (1989, p. 11). Since then cumulative research exists that shows many researchers are in agreement that gifted students with learning disabilities manifest a complex array of abilities, learning challenges, and needs (Assouline et al, 2010; Baum, Owen & Dixon, 1991; Davis & Rimm, 1995, 2004; Johnson, Karnes & Carr, 1997; Nielsen, 2002; Silverman, 2002, 2003; Trail, 2011 cited in Crepeau-Hobson & Bianco, 2012). Though it is generally accepted now that twice-exceptionality can exist within one person and more research is being done, "this increasing attention has not always been matched with empirical evidence supporting students' needs" (Foley-Nicpon, Allmon, Sieck & Stinson, 2011, p. 3) and empirical investigation remains sparse (Foley-Nicpon, 2013).

1.3. Subgroups of Students with Gifts and Learning Disabilities

The National Association for Gifted Children (NAGC), in their position paper on students with concomitant gifts and learning disabilities, recognized three types of students who could be identified as having gifts and learning disabilities:

(1) identified gifted students who have subtle learning disabilities, (2) students with a learning disability but whose gift has not been identified, and (3) unidentified students whose gifts and disabilities may be masked by average school achievement (NAGC, 1998, p. 1).

Beckley (1998) also proposed that the first of these groups is comprised of students who have been "identified as gifted yet are exhibiting difficulties in school and are often considered underachievers"(n.p.). Inappropriate educational conditions and unassessed learning disabilities contribute to the underachievement of this group of twice-exceptional learners (Reis & McCoach, 2002 in Trail, 2011). Many of these high ability students maintain their academic work at grade level and therefore are likely to be overlooked by screening procedures that are necessary to identify subtle learning disabilities. Baum (1989) concurred that this group of students are those identified gifted students with subtle learning disabilities. Baum & Owen (2003 in Morrison & Rizza, 2007) identified students in this first subgroup as being individuals identified as gifted who show indicators of deficits in a specific disability area. Trail (2011) also reported in her book that she has found that many gifted learners have significant cognitive discrepancies and are not achieving to their full potential. The students in this subgroup, who have superior intelligence, may never be identified with a learning disability.

The second subgroup includes students who have been formally identified as having learning disabilities, but whose exceptional intellectual abilities have never been recognized or addressed because of inadequate assessments or depressed IQ scores. This may lead to the underestimation of their true intellectual abilities (Baum 1989; Beckley, 1998; Morrison & Rizza, 2007). Baum stated that these bright children often fail in school because they are noticed first for what they cannot do rather than for the talent they are demonstrating. This puts them at risk because of the implicit message that the learning difficulty must be fixed before their talent can be nurtured. Additionally, if a bright but learning disabled student never has the opportunity rise to meet academic challenges he or she may lose confidence in their ability and will never reach his or her potential. While it may seem logical to think that the students require services that meet both sets of needs, most often the school address the need for remediation rather than enrichment (Morrison & Rizza, 2007).

The final group of twice-exceptional students whose needs are not being met are those "who are sitting in general classrooms and are considered unqualified for services provided for students who are gifted or have learning disabilities" (Bentley, 1998). These students may appear to possess average abilities due to the fact that their abilities and disabilities mask each other (Assouline, Foley-Nicpon & Whiteman, 2010; Bentley, 1998;

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Colorado Department of Education, 2009; Maker & Udall, 1995 in Trail, 2011; Ruban & Reis, 2004; Webb et al., 2005). Baum (1989) agreed that these students are those whose gifts and learning disabilities are masked by average achievement. Morrison & Rizza (2007) also concurred that identifying students in this subgroup will always be problematic because their disabilities mask their abilities and vice versa. Bianco and Leech (2010) also found that average or even below average performance on many standardized measures of aptitude and achievement was caused by the masking effect discussed in this paper. Finally, Trail (2011) asserted that masked disabilities make aspects of academic achievement difficult for gifted students. The achievement scores for these students may appear to be average but are relatively weak when compared with their ability (Assouline et al., 2010).

The twice-exceptional student will rarely get to the point of failing and will likely be able to mask discrepancies in achievement and appear average (Morrison & Rizza, 2007). Many experts also believe that finding students in this category will prove most difficult because they may not appear on referral lists for either group. If general classroom educators' have learned to associate giftedness only with IQ scores and high achievement, then it is only natural to see how difficult it would be to understand that a student with gifts could also have real difficulties in other academic areas (Morrison & Rizza, 2007). And yet, this is exactly what happens to many students with dual exceptionalities. They are not noticed for their potential as they appear average.

One article that contradicts most of the other literature written on those with gifts and learning disabilities is a paper written by Lovett & Lewandowski (2006). These authors question the validity of the masking hypothesis. They say that it is possible that the "idea that giftedness and LD mask each other leads to a situation where *no* (italics in original) claim of G/LD status can be falsified...this may lead to a slippery slope whereby most students fit a G/LD definition"(p.522). They go so far as to recommend that in clinical and educational practice "we should stop basing the diagnosis of G/LD on the masking hypothesis"(524). This article presented some interesting and contradictory viewpoints; however, in this review of the literature, it was difficult to find other scholars who agreed with their findings. It is not possible to conclude in this review whether their findings have merit or not.

1.3.1. Characteristics of Students with Gifts and Learning Disabilities

There is a huge range of characteristics associated with twice-exceptional students. Although they are generally categorized together, twice-exceptional students are a very heterogeneous group. Some scholars argue that "the definitions of giftedness and LD each show such range, it is a very real concern that the G/LD category may be too heterogeneous to allow generalizations" (Lovett & Sparks, 2013, p. 305). Many other scholars though suggest that G/LD students are characterized by their learning differences and unique learning styles (Krowchak & Ryan, 2007; Morrison & Rizza, 2007). "No single characteristic is enough to consider a student as gifted/learning disabled" (Beckley, 1998, p.1). There is, however, a set of characteristics that seems to apply across many gifted/learning-disabled students. It includes: (a): evidence of an outstanding ability (b): evidence of a processing deficit (Brody & Mills, 1997, p. 285).

Some characteristics of giftedness can look very much like those of a learning disability and, as a result, some gifted students are incorrectly diagnosed with a disorder (Webb et al., 2005). These twice-exceptional students may appear unmotivated because of the combination of their brilliance and their learning problems (Bees, 2009). Their brightness, in so many cases, is their ability to quickly take in information, evaluate and synthesize it, which Bees reported is energizing and easy for them. Unfortunately, it is the further processing of the information that causes them problems. Written output, reading or attention problems drain their energy because of the extreme effort required from them to perform these tasks. Blancher (2007) reported that twice-exceptional children had a high IQ profile strongly resembling the gifted group and a low academic achievement profile like the LD group.

Besnoy (2006) reviewed and compiled a list of general characteristics that can often be seen in gifted students with learning disabilities (see Table 1.1). He asserted that it is this unique combination of the characteristics they possess, some of both gifted and learning disabled individuals, that warrant specific individualized programming.

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Intellectual Strengths (Lidz, 2002)	Academic Skill Deficiencies (Baum,1990)	Socio-Emotional Concerns (Beckley, 1998)
Advanced abstract reasoning skills	Low scholastic confidence	Aggression
Ability to make astute generalizations	Poor organizational and study skills	Anxiety
Quick conceptualization of ideas	Lack of graphomotor speed	Defensive
Enjoyment in solving tasks autonomously	Difficulty with sequencing	Disruptive in class
Precocious intellectual ability	Problems with metacognition	Low self esteem

 Table 1.1.
 General Characteristics of Gifted Students with Learning Disabilities

Note. Data from Besnoy, 2006, p. 20. (data compiled from Baum (1990), Beckley (1998), Lidz (2002).

They may have superior vocabulary, an exceptional memory, advanced ideas and opinions, high abstract reasoning ability, be resourceful and creative, but also be easily frustrated, sensitive to criticism, lack organization and have difficulty with written expression (Besnoy, 2006; Ruban & Reis, 2005; Trail, 2011; Willard-Holt, 1999). This complex combination of traits poses a huge challenge to having these students' academic needs met in the general classroom. Many twice-exceptional students can get caught in a cycle of perfectionism, avoidance and procrastination (Trail, 2011).

1.4. Identification and Assessment

1.4.1. Identification

"The potential for giftedness exists in all segments of the population, including students with disabilities. "For many reasons, students with disabilities, or twice-exceptional learners, remain underrepresented and underserved in gifted programs" (Bianco & Leech, 2010, p. 319). Students may fail to receive specialized services for their twice-exceptionality because they fail to meet the criteria for either the gifted or learning-disabled programs. In their work, Krowchak and Ryan (2007) found that, while some twice-exceptional students qualify for assistance on the basis of their disability and some qualify because of their gifts, most gifted students with learning disabilities are not identified and served properly in the current education system.

New research suggests that one barrier "encountered in the study of twiceexceptional learners is the process for, and complications of, identification (Willard-Holt, Webber, Morrison & Horgan, 2013, p. 248). Blancher (2002) tells us that "it is likely that either type of exceptionality, learning disabled or gifted, could mask the identification of the other" p. 101). Students who have gifts are often able to compensate for their disabilities and they may still achieve at grade level. Some twice-exceptional gifted learners work hard to hide their learning problems and to maintain the persona of a gifted student (Trail, 2011) and they may underachieve for many years before their achievement falls significantly below the average grade of their peers. On the other hand, students who have learning disabilities may not be identified as gifted because they do not consistently display high achievement (Krochak & Ryan, 2007). Recent literature tells us that students who have gifts and are learning disabled may not be detected because "schools may stop looking for exceptional abilities once a learning disability has been identified" (Alberta Learning, 2004 p. 59). It is this dilemma of compensation that causes many people to question whether or not G/LD students actually exist. In one review of the literature, the authors concluded that "as many as 33% of students identified with learning disabilities had superior intellectual ability" (Brody & Mills, 1997, p. 283).

"Relying on separate prevailing identification procedures for gifted students and students with disabilities makes identification difficult when students possess characteristics of both groups" (Trail, 2011, p. 13). In BC, "schools and school boards are responsible for assessing students for the purpose of planning instructional support services and for identifying students with special needs" (BC Ministry of Education, 2011, p. 47). The province also requires that in order to identify a learning disability or for identifying gifts, multiple sources of both formal and informal assessment information must be gathered. This systematic assessment and documentation, in addition to cognitive testing, is what assists the school in identifying the student based on their persistent learning difficulty, average or above average cognitive ability, and seeming weakness in cognitive processing.

Many educators still view below grade level achievement as a prerequisite to diagnosing a learning disability. Therefore, it is likely that a high ability student who manages to stay on grade level may not receive the appropriate services because he or

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she is not failing (Baum, 1989; Trail, 2011). "As research suggests, the true academic potential of these learners maybe overshadowed by their disabilities" (Willard-Holt et al., 2013, p. 248). It has been reported by many students in the literature that nothing is more frustrating to a student with superior intellect than knowing they are capable of much more but being unable to reach their potential because of the learning weaknesses that are evident only in school. These students may "suffer silently...because their educational needs are not recognized and addressed" (Brody & Mills, 1997, p.292).

The literature tells us that the identification of giftedness in students who have disabilities is problematic (Ruban & Reis, 2005; Willard-Holt, 1999), and also remains "both controversial and incomplete" (Krochak & Ryan, 2007, p.50). In their new study, Lovett and Sparks (2013) contend that "there is no overarching consensus in the G/LD field as to how to identify students who should be classified a G/LD" (p. 312). Despite the fact that there is still no real consensus about the best means for identifying twiceexceptional students, widespread agreement exists in the literature concerning the difficulty of trying to identify this special group of learners (Baum & Owen, 2004; Brody & Mills, 2004; Yewchuk & Lupart, 2000 in Ruban & Reis, 2005). Experts stress that "determining the best method to identify gifted/learning disabled students is not an easy task due to their dual issues" (Krochak & Ryan, 2007 p. 46). Brody and Mills (1997) underscore the need for accurate identification by pointing out that most students who have gifts and learning disabilities do not get referred for special education services. Also reported in the literature is the issue that "the operational definitions used by most schools to place children in gifted or special education programs exclude many academically talented students with learning problems who rarely meet the rigid cut-offs of most identification procedures (Fall & Nolan, 1993 in Brody & Mills, 1997 p. 222).

Educational advocates for twice-exceptional children have recognized the need for early identification and subsequent programming. Nonetheless, many twiceexceptional learners are not identified in elementary school because their disabilities remained hidden due to their superior compensatory abilities (Blancher, 2007; Colorado Department of Education, 2009; Trail, 2011). Alternatively, they may not be noticed because they do not exhibit the typical behaviors that precipitate a referral for special services, such as behavioral problems or failing grades. Teachers and parents may misidentify a lower-achieving gifted child as unmotivated or inattentive or mismatched with school, and miss the very real learning difficulties. Difficulties such as cognitive deficits in auditory processing, visual processing, and processing speed may decrease these students' abilities to process information and negatively influence their academic achievement (Trail, 2011). The student's learning disability may be obscured because he or she is not falling below grade level in achievement (Morrison & Rizza, 2007).

A study done by Bianco in 2005 investigated the effects of labeling on a student, and whether that designation label influenced regular and special education teacher's referrals of those students to gifted education programs. The author claimed that one barrier to identifying and referring students with disabilities to such programs is teachers' stereotypic beliefs (p. 287). Bianco concluded that both groups of teachers were clearly influenced by a disability label and therefore less likely to refer students with such a designation to gifted programs than an identically described student with no label. However, because the participants were randomly assigned, the bias mentioned above should be removed.

The strengths of the study include that the study had almost 250 participants that were randomly assigned to subgroups. The three treatment conditions that were explored were no exceptionality label, learning disability (LD) label, and emotional behavioral disorder (EBD) label. All groups were given a vignette describing a student with gifted characteristics, and this remained constant across all conditions. What changed was that one third of the group received the vignette with no label, one third with a LD designation and one third with an EBD designation. Distracter questions were also employed to uncover trends in teachers' responses (p. 290), thus reducing the likelihood that teachers were answering questions the way they thought they should.

A weakness of this study was that all participants were from one school district in Florida, and all taught at the elementary school level. The results of this study can only be generalized to similar groups of teachers in a small area of South Eastern USA. This study did build on previous research findings that demonstrate that teachers are "negatively influenced by disability labels when making referral decisions to gifted programs" (p. 292), and therefore it extends the belief that preconceived notions of who "gifted" students are still exists. This study provides more evidence that further training

on twice-exceptionality would help teachers understand the "apparent paradoxical nature" of a gifted/learning disabled student.

A 2010 study by Bianco and Leech, done as a follow-up to this previous work by Bianco (2005), came to the same conclusion. The purpose of this mixed methods study was to explore differences among general classroom teachers, special education teachers, and gifted education teachers in their perception of students with disabilities and their willingness to refer them for gifted education services. This study had more than 275 participants and controlled for teaching credentials and demographic composition with regard to socioeconomic status of the student population at assigned school sites. Their statistically significant findings echoed those in the 2005 study which found that both general classroom and special education teachers were "much less willing to refer students with disability labels to gifted programs than identically described students with no disability label" (Bianco, 2005, p. 285). For both general education and special education teachers, the hypothetical disability label attached to a student negatively influenced their decisions to refer the profiled student for gifted services (Bianco & Leech, 2010). In the new study, the authors found that special education teachers were the least likely to refer hypothetical twice-exceptional students for gifted services, followed by general education teachers. The only teachers that recommended referring students with both hypothetical gifts and disabilities were teachers of the gifted. This mixed methods study employed both gualitative and guantitative research methods. The qualitative portion of the study investigated why teachers did or did not refer students to gifted programs. The results indicated that all teacher groups were influenced by a disability label (p. 330) in that they were less likely to identify a student with gifted characteristics when a LD designation was also given to that student.

This study is important because twice-exceptional students are frequently first identified for their disability and, if given the LD label, may go unrecognized as having gifts. It also reconfirms what Croft (2003, in Bianco & Leech, 2010) found in her work: that "too few classroom teachers know how to recognize the characteristics of gifted learners" (p.321). Bianco and Leech (2010) state emphatically that these findings are very troubling when one considers that twice-exceptional students are frequently first identified for their disability (p.329). Strengths of this study include that more than 275 participants were recruited including a mix of special education teachers, general

education teachers and gifted education teachers, and that the study was controlled for socioeconomic status and demographic composition of the students and teaching credentials of the teachers. Their study had several limitations worth mentioning, the first being that their subjects were not randomly sampled, and their sample size was limited to 19 schools in one South Eastern state with a middle and high socioeconomic status. This limitation means that this study should not be generalized beyond that region and those grade levels. Bianco and Leech's findings hold an important implication for teacher training and professional development as "inadequate teacher training has frequently been cited as a reason for the under identification of gifted students with disabilities" (p. 330).

Best practices in the identification of twice-exceptional learners point to use of multidimensional assessment that outlines specific areas of strengths and concerns (Morrison & Rizza, 2007, p. 57). Magrath's (2013) recent addition to the literature describes what a multidimensional assessment might look like. He believes a thorough academic evaluation should have four core components to it. They are as follows:

Developmental history: This should be a review of the student's medical, educational and social background in order to put the test data into context. Accurate diagnoses of learning disorders require ruling out medical causes.

Cognitive assessment: This should be a detailed examination of learning skills and abilities. Intelligence testing is usually part of this work. Cognitive assessment should also include specialized measures of attention, memory and executive functioning.

Academic achievement: A comprehensive battery of tests is used to evaluate the student's skills in reading, math and writing. Most assess basic skills and the ability to apply these skills efficiently.

Behaviour, Social and Emotional Functioning: This should evaluate and assess the student's behavioral strengths and challenges.

His evaluation fundamentals cover a wide range of functioning of the child. The evaluation components appear to have merit, and warrant investigation to determine if his evaluation techniques make sense. Many other experts in the field also maintain that the criteria used to identify students with both gifts and learning disabilities must be multidimensional and reflect the unique cognitive processing qualities of the twice-

exceptional student (Brody & Mills, 1997; Crepeau-Hobson & Bianco, 2011; Krowchak & Ryan, 2007; Weinfeld et al., 2002). Morrison and Rizza (2007) suggest that, for twiceexceptional students, a multifactor evaluation is recommended that uses both tests and authentic assessment techniques. The subtlety of the dual diagnosis may be lost if only test or grade data is used (Morrison & Rizza, 2007). This may be because children who are twice-exceptional do "not demonstrate their true cognitive abilities on standardized measures" (Alberta Learning, 2004, p. 59). A contrasting finding made by Lovett & Lewandowski (2006) in their review is that having expanded definitions of intelligence and gifted classification as long as they have *some* (italics in original) area of high ability"(p. 521). These authors argue that uncritical acceptance of the concept of G/LD has led to unsound identification and improperly targeted interventions (p.515).

For a student with gifts and learning disabilities, global IQ measures may be particularly insensitive to depression of scores caused by the disability (Brody & Mills, 1997). Full-scale IQ numbers from standardized test measures do not accurately reflect the potential of gifted students with learning disabilities. Over two decades ago Waldron & Saphire (1990, p. 491) found that, in gifted students with a learning disability, their LD may "lower the IQ scores so dramatically that students do not qualify" for gifted programs.

Having students tested with multidimensional assessments and more "flexibility in identification will enable more twice-exceptional children to be properly identified and served" (Ruban & Reis, 2005). Lovett & Lewandowski, as mentioned previously, sharply disagree. They put forth that the tools scholars are using to expand definitions of giftedness do not match traditional IQ assessments in their "psychometric characteristics or their relevance to educational programming" and have "debatable accuracy" (p. 520). Most schools do have a procedure in place for referrals to special education. However, in the case of the potentially twice-exceptional students, experts recommended that the school based team should include gifted specialists on the referral team (Morrison & Rizza, 2007).

1.4.2. Assessment

In BC, individual students may be assessed to detect learning disabilities, reading difficulties, language deficiency, and giftedness. Research suggests that "there is a growing body of evidence that the earlier the intervention, the more effective it will be" (Abraham & Gram, 2007, p. 10). The assessment process often begins with the classroom teacher, and they may even be the primary source for identifying students who need accommodations (Alberta Learning, 2004). In BC, regular classroom assessment of all students, especially those with special educational needs, is essential as a starting point in the identification of students with special needs (Naylor, 2002). The Ministry guidelines (BC Ministry of Education, 2011) indicate that there should be three phases in assessment: pre-referral activities, referral to the school-based team, and referral to extended assessment (Siegel & Ladyman, 2000).

Evaluation and assessment should be designed to maximize the student's demonstration of his/her knowledge of concepts and content (Weinfeld et al., 2002). The general emphasis on below-grade-level performance, without regard to the student's higher abilities or potential weaknesses, misses many twice-exceptional students during the assessment process (Gilman et al., 2013). In their 20 year review of the empirical literature examining gifted students with learning disabilities, Foley-Nicpon et al. (2011) report that academic and ability test scores must be accompanied by a variety of other developmental, performance, psychometric, and sociometric sources of information to assess above-average ability. They also report that "a comprehensive individualized evaluation that employs an intra-individual, rather than an inter-individual approach toward ability and achievement analysis is critical" (p. 7). The NAGC also stated that "multiple pieces of psychometrically sound data obtained from a variety of sources result in a more comprehensive and thus, more accurate picture of the student" (2008, n.p.).

Echoing this position, another recent investigation (Assouline, Foley-Nicpon & Whiteman, 2010) resulted in the authors highlighting the fundamental need for comprehensive assessment that includes an individually administered cognitive ability test. They indicated that testing should be the first step toward identifying strengths and areas of growth in a gifted/talented student with a specific learning disability. The

purpose of their study was to further the empirical knowledge about students who have both gifts and talents, as well as learning disabilities. They wanted to determine if a comprehensive assessment played a critical role in determining whether a student is twice-exceptional. Participants were administered a "battery of tests chosen to identify areas of academic talent as well as either rule out or confirm a diagnosis of a learning disability"(p, 106). The participants were administered two individually administered achievement tests, the Woodcock-Johnson III and the Wechsler Individual Achievement Test, 2nd edition. As well, other comprehensive evaluations were administered to the subjects by gualified psychologists. In addition, parent rating scales, student selfreports, and student case histories were used to broaden the assessment protocols. This study was done in Iowa and included 75 gifted students who were recruited via a flyer distributed electronically to parents and educators of gifted and talented students. Of those students, only 19 met the final criteria of having both gifts and learning disabilities. This is a relatively small sample size and, therefore, a major limitation of the study, and the authors are unable to claim that their sample would be representative of all "gifted students with an SLD [specific learning disability]" (Assouline et al., 2010, p. 113). As well, all of the participants identified themselves as being Caucasian, meaning the results of this study cannot be generalized to other ethnic groups. The authors conclude that their findings indicated that "the use of a comprehensive evaluation can document both a student's talent areas as well as areas of disability" (p. 54). A further limitation is that since there was no comparison group available, this study was purely However, this is an important study in that it is a great step toward descriptive. demonstrating how a multidimensional assessment can assist in properly identifying students with gifts and learning disabilities.

From a review of the BC Ministry of Education's Special Education policy (2011) as well as the BC Teachers Federation report on education facts (2012), there appear to be two main models of assessment currently being used in BC: the discrepancy-based identification model and the Response to Intervention (RtI) model. Recent literature reports that "the use of a discrepancy between the child's IQ and achievement scores has been the predominant method for identifying this type of [learning] disability" (Crepeau-Hobson & Bianco, 2010). The presence of a discrepancy between IQ test scores and standard scores for achievement is used to identify students in the category

of Learning Disability as reported in the BC review of Education (Siegel & Ladyman, 2000). The NAGC (2010), in their position paper on the use of the WISC-IV, state that "for twice-exceptional children, the WISC-IV plays an important role in documenting the child's giftedness and learning deficits" (n.p.). The NAGC also believe that "the process of identifying students for gifted and talented programs must be based on defensible measurement practices, including the process of selecting psychometrically sound assessments" (NAGC, 1998).

When using the discrepancy model, Silverman (2005) states the importance of looking at IQ test scores from intrapersonal rather than normative view; that is, "*to what extent does the discrepancy between this child strengths and weaknesses caused frustration and interfere with the full development of the child's abilities?*" (*p. 7 italics in original*) rather than, how does this child perform compared to the norm? Silverman stresses that it is the subtest scores in the superior range that define a student's giftedness; while disabilities are detected by analyzing the weakest subtest scores in relation to the strongest (p.8). She also believes that although IQ test profiling remains a controversial issue, it may be beneficial to consider a superior score on any of the subtests as a true estimate of potential, regardless of the combined scores (Silverman, 2005). Other literature has proposed, however, that the "lack of focus on the student's needs rather than test scores, and the length of time it takes for a discrepancy to become large enough to observe" (Crepeau-Hobson & Bianco, 2010, p. 103), have made the scholars in this field refer to a discrepancy model as a "wait to fail paradigm" (p. 103).

Many other formal diagnostic assessments provide reliable in-depth information on a student's acquisition of skills and can be used to select interventions that focus on specific skill deficits (Trail, 2011). Tests of cognitive skills are commonly used in BC. The Canadian Test of Cognitive Skills (CTCS) is a group administered test that may be given to students in certain districts in BC in the primary grades in order to help identify those who need further assessment or intervention. The Cognitive Abilities Test (CogAT), is also used. It is a group administered test that measures general intellectual ability. It assesses the reasoning and problem-solving skills of students, and can inform teachers of irregular patterns of comparative strength and weaknesses.

Achievement tests may also be used in the BC education system. These are standardized tests used to measure skills and knowledge related to grade level content standards. Results provide percentile rank, grade or age equivalent, standard score, and standing. In BC, some examples of individually administered diagnostic assessments that are currently used to assess and identify exceptional students are the Woodcock – Johnson III diagnostic reading battery (WJIII-DRB) and the Woodcock – Johnson III tests of achievement (WJ-III). These tests have been normed with children across the United States for parents and educators to know where the student ranks when compared to other students of the same age. As there are "few individual batteries of cognitive and achievement abilities that have reported independent validation with Canadian populations", the use of US normed tests with Canadian populations is common practice (Ford, Swart, Negreiros, Lacroix & McGrew, 2010, p. 1). This recent literature is the first to explore the use of the WJ III's US norms in Canada. It has both strengths and weaknesses. These authors found that mean differences found in the US samples were not statistically different compared to the mean differences found in the Canadian sample. As well, they report that "tests of the equality of variances for general intelligence and total achievement indicate that, overall, these differences are not significant" (p. 11). One of the strengths of this report is that the participants were selected from all across Canada and all socioeconomic statuses were included. The authors also matched the sample very closely with participants in the United States. They report that that their "sample matching process was successful in producing two samples that were similar in their distribution of general intelligence and overall academic achievement abilities" (p. 11). This study's main weakness is that it has a conflict of interest in that it was partially funded and published by the same company that publishes the Woodcock-Johnson tests. Further research is needed to better understand the need for Canadian norms when using and applying American standards to Canadian students.

Formal cognitive assessments are used to assess auditory processing, visual perception, processing speed, executive functioning, sequencing, memory, and attention. These are norm-referenced tests. Although they cannot be used to monitor student progress, they can be used to gain important insights. The most oft used test is the Wechsler Intelligence Scale for Children, fourth edition (WISC-IV) (Trail, 2011). This

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assessment can give insights related to the student's cognitive strengths and weaknesses and it is meant to test several different broad abilities of intelligence. The WISC-IV has four separate areas used to provide a composite score. These areas are: the Verbal Comprehension Index, Perceptual Reasoning Index, Working Memory Index and Processing Speed Index. The combination of these indexes make up the full scale IQ (FSIQ). However, experts caution that it is important to remember that the FSIQ scores are not a reliable indicator of ability if there is a discrepancy of 23 points or more between any of the Index scores.

The NAGC (2010), in their position paper on the use of the WISC-IV with students who have gifts, have the following to say;

The Verbal and Performance IQ scores of earlier versions of the [WISC] scale have been replaced by four Composite/Index scores on the WISC-IV: Verbal Comprehension, Perceptual Reasoning, Working Memory and Processing Speed. The weight of *processing skills* in the Full Scale IQ calculation has doubled, with a consequent reduction in the weight assigned to *reasoning* tasks (verbal, visual-spatial and mathematical). Gifted children with or without disabilities may be painstaking, reflective and perfectionistic on paper-and-pencil tasks, lowering their Processing Speed Index scores. As a result, a majority of gifted children show considerable variability in their Composite/Index scores on the WISC-IV, a problem less often encountered in average children. When this occurs, WISC-IV Full Scale IQ scores for the gifted may be difficult to interpret and, in some cases, may be lowered sufficiently by processing skills to prevent gifted children from qualifying for needed programs.

The NAGC's position on the use of full scale IQ scores obtained with the WISC-IV echoes other authors in the literature. Trail (2011) says that the Verbal Comprehension Index and the Perceptual Reasoning Index use independent measures of ability in the specific areas, but the single IQ score is often of little use because twice-exceptional students present with a very uneven profile of abilities.

Corinne Bees (2009), creator of the Vancouver School Boards GOLD program for students who are both gifted and who have learning disabilities, states that the standard practice is to use the Wechsler Intelligence Scale for children (WISC-IV) to determine the child's intelligence quotient (IQ). She also believes, for children who are twice-exceptional, is it imperative to look at the subtests scores on the WISC and not the FSIQ. "Unusually high or low scores need to be explored through further assessment....and a scatter on the subtest scores indicate the need for further assessment and hypothesis testing" (p. 18).

The testing profile of twice-exceptional students often show extremely uneven test scores. Morrison and Rizza (2007, p. 60) tell us that

"Identifying discrepancy scores that exceed one standard deviation is often easy to support, but, when the scores are not in the below-average range, as expected in a typical special education referral, the process becomes difficult. The mistake often occurs when achievement scores in the average range are ignored because it implies that the student has the innate ability to succeed. In the case of the gifted student whose aptitude scores are in the superior range, even average achievement scores indicate a problem in functioning. Average achievement may not constitute a problem for most students, but, for those who have the potential to score significantly higher, the problem is clear."

Some students with large discrepancies between their aptitude sub-scale scores don't receive special education assistance because their overall scores are still in the average range. This discrepancy is ignored because it implies that the student has an innate ability to succeed. When evaluating the standardized test scores of twice-exceptional student, subtest scores should be considered instead of full scale indices (Rizza & Morrison, 2007). This is because the subtest scores "will often reveal more specific information related to strengths and weaknesses because full-scale orchestra scores are comprised of discrepant scores. In other words, regression to the mean effects may cause flat or seemingly average scores" (p. 6).

The use of Response to Intervention (RtI) model for assessing twice-exceptional children is relatively new in comparison to the discrepancy model. RtI is a group administered model, while the discrepancy model is generally an individual model. "RtI relies on systematic problem identification and treatment of a student's academic deficits, based on assessment of all students early in the school year, continuous assessment of those considered at risk" (McCallum, Mee Bell, Coles, Caldwell Miller, Hopkins, & Hilton-Prillhart, 2013, p. 211). A core feature of RtI is "high quality, research-based instruction and behavioural support in general education" (Naylor, 2013, p. 4), though it is yet to be determined empirically if this model will be superior to the

discrepancy model in its ability to assess and identify twice-exceptional students with both gifts and learning disabilities. New literature suggests that because of the universal screening done to assess students, the RtI model has the potential to identify twiceexceptional students. However, as currently implemented, this model does not seem sensitive enough to be used for twice-exceptional students (McCallum et al., 2013). Adams, Yssel, and Anwiler (2013, cited in McCallum et al., 2013) and Crepeau-Hobson and Bianco (2011) suggest in their research that the RtI model may not be able to overcome the masking effects discussed in other sections of this current paper and, therefore, may "not be any better than, or perhaps not as good as, the aptitude– achievement discrepancy model" (McCallum et al., 2013). The BC Association of School Psychologists, as reported in the BCTF (2013) report on Special Education, says that currently in BC, the procedures used in the RtI model cannot on their own be used to assess and diagnose a student's learning disability (Naylor, 2013).

Rtl focuses on a tiered system, and if the evidence shows that the child needs additional support for success, then more intensive interventions must be provided. However, many students with gifts and learning disabilities may be compensating and appear to be functioning adequately in the classroom, and never reach the tier needed for intervention within this model. The student may look adequate and be at grade level, despite the fact that their performance may be far below what they are capable of, given their intellectual ability. A gifted child with a disability often scores in the average range of performance based on their grade, and their average performance is not failure enough to be considered for an intervention (Assouline et al., 2010). If the Rtl framework was used to focus on intra-individual differences obtained by twiceexceptional children in performance on cognitive tasks, instead of the current interindividual comparison, this may decrease the likelihood students with gifts and learning disabilities would be missed when the focus is solely on poor academic performance. It is important to remember that a student's IQ score cannot describe the challenges that they face as a result of their weaknesses, nor will it give insight as to their potential for success in their areas of strengths. In looking at the opinions of experts in the literature, it does not appear that either of the current assessment paradigms are properly serving the needs of twice-exceptional students in BC.

Teachers in BC expressed a strong view that the assessment and identification of students is not done in a timely manner (Naylor, 2002). Only 13%, a very low percentage, believed that students with exceptional learning needs were well served by the identification processes and assessment instruments used in BC (Naylor, 2002). And given that one of the most common methods for screening students for special services identification includes teachers' observations and nominations, "teachers' perceptions of students with disabilities and their knowledge of gifted characteristics become a critical component for initial identification of potential giftedness among twice-exceptional learners" (Bianco & Leech, 2010, p. 319). Even so, the research being done indicates that "in most school systems, whatever identification program is pursued, neither will be likely to have adequate flexibility to enable the recognition of both gifted and learning disabilities and, if the student is successfully identified, interventions tend to favor one area and consequently, are not as likely to address the unique learning needs any other area of exceptionality" (Reis, McGuire & Neu, 2000 in Ruban & Reis, 2005, p. 121).

Using multiple criteria for identification will provide support when a case is being made that a student should receive access to both gifted and special education programs. The wider range of quality assessment information that is collected, the better able school professionals will be to provide appropriate services for identified students (Morrison & Rizza, 2007). "Too many twice-exceptional students fail to meet the qualification requirements for either program because they identification protocols fail to consider the special attributes of this population" (Beckley, 1998). Identification and assessment should be carried out using multiple criteria including teacher observations, checklists, records of student achievement, nominations by educators, parents, interviews with parents and students, and formal assessments to Level C of cognitive ability, achievement, aptitude and creativity" (BC Ministry of Education, 2011, p. 52). These students have great potential but "without appropriate identification and services, the gifts of these students may never be developed" (NAGC, 1998).

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1.5. Supporting G/LD Students in School

Though the concept that students can at once both have gifts and learning disabilities is gaining increasing recognition in the gifted education literature, very little is understood about twice-exceptional students within the educational community (Foley-Nicpon, Assouline & Colangelo, 2013) and identification and programming strategies are still lacking. "Despite the fact that most gifted students spend all or most of their day in general education classrooms (Starko, 2008 in Bianco & Leech, 2010), teachers are not adequately prepared to identify and serve gifted students with or without disabilities" (Croft, 2003; Starko, 2008 in Bianco & Leech, 2010).

Intervening early in a child's educational experience is critical for gifted students with learning disabilities. Recent research studies such as Neumeister, Yssel & Burney (2013) have shown that this can reduce frustration and prevent social, emotional and behavioral issues. They propose that "early and accurate identification of both gifts and disabilities and access to research-based interventions" (p. 270) is what will lead to the success of twice-exceptional students. Students with both gifts and learning disabilities, despite functioning at grade level, are not reaching their full potential (Crepeau-Hobson & Bianco, 2012). The review of Special Education in BC (Naylor, 2013) also found that students with special educational needs are more likely to be successful if they experience early intervention. Experts suggest that the classroom teacher should start the planning process by collaborating with the student, his or her family, the school's gifted and talented co-ordinator, and the special education teacher (Crepeau-Hobson & Bianco, 2012). "Often special educators, along with teachers in general education, are quick to highlight deficits and concerns while overlooking unusual talents and assets" (Blancher, 2002 p.101).

Siegel and Ladyman (2000) concur that communication among parents, teachers, and support staff is crucial to the success of services for students with special educational needs. The BC Education Ministry also stressed that parents play a vital role in the education of their children by working in partnership with educational and other service personnel (BC Ministry of Education, 2011). This newer report reiterates what Reis, Neu, and McGuire (1995) found in their study almost two decades ago; that is, parental support is one of the major factors affecting achievement in G/LD students.

"Instructional programs for gifted and talented/learning-disabled students must focus on developing their strengths, interests, and superior intellectual abilities for accommodating for their learning weaknesses (Weinfeld et al., 2002, p. 226). A recent mixed methods study (Willard-Holt et al., 2013) done in Ontario study looked at the learning strategies from the perspective of the twice-exceptional student as well as the barriers to fulfilling their potential. While mostly qualitative, the study did include a survey and the results from it were used to support the qualitative data. One of the research questions asked was "What learning strategies have twice-exceptional students used and found most beneficial?" (p. 250). The 11 participants that fully completed the study were both male and female, aged 5 to college level, and had been identified as gifted as well as having one or more disabilities. The authors provide descriptive statistics only; but, their findings did indicate that participants perceived that their "overall school experiences failed to assist them in learning to their potential, although they were able to use their strengths to circumvent their weaknesses" (p. 247). To achieve, these students required remediation in their areas of need or disability while at the same time they required opportunities to enhance their strengths and their areas of giftedness (Krowchak & Ryan, 2007). Willard-Holt's 2013 study reiterated that twiceexceptional students require opportunities to promote their strengths and talents if they are to achieve to the accelerated academic proficiency expected of gifted students. "They simultaneously require gifted instruction and special instruction, allocations, and accommodations provided to the students with special needs" (Neilson, Hammond & Higgins, 1993 in Weinfeld, Barnes-Robinson, Jeweler & Shevitz 2002, p. 226). "Twiceexceptional students should be afforded the same consideration as a gifted student, and the progression be compared to their potential. A low, yet passing grade is not acceptable for a high ability student and should not be used to deny services for the twice-exceptional" (Morrison & Rizza, 2007, p. 63). Their strengths might in fact be the key to success for twice-exceptional students (Foley-Nicpon, Allmon, Sieck, & Stinson, 2011; Knapp, n.d.; Willard-Holt, Weber, Morrison & Horgan, 2013).

Weinfeld et al. (2002) tell us that creating a comfortable yet challenging classroom climate is essential and addressing the socio-emotional needs of gifted talented/learning-disabled students is critical to their achievement. The classroom

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climate is one that should be designed to respect individuality with accommodations that focus on strengths and potential for success rather than remediation (p. 229).

Baum (1989) states that after years of research, she has four general guidelines she feels that can assist professionals in developing programs that meet the needs of twice-exceptional students. First, and foremost, focus attention on the development of the student's gifts. Then, provide a nurturing environment that values the individual's differences. This environment should show concern for developing student potential. At the same time, teachers must encourage compensation strategies for learning difficulties to assist the student in coping with problematic weaknesses typical of learning disabilities. Finally, encourage awareness of individual strengths and weaknesses. It is imperative that students who are gifted and learning disabled understand where their abilities, strengths, and weaknesses lie so that they can make intelligent choices about the future. A collaborative effort between classroom teachers, special educators, gifted educators and parents is needed to identify twice-exceptional students, and to implement strategies to meet these students' needs (Colorado Department of Education, 2005).

1.6. Twice-exceptionalities in the BC School System

In theory, the promise of schooling in BC is that all students will be challenged to reach beyond the boundaries of their knowledge and experience (BC Ministry of Education, 2011). A review of special education in BC conducted in 2000 found that while BC's system for addressing special educational needs of students is a good one, there is need for improvement (Siegel & Ladyman, 2000).

The literature suggests that "the under identification of gifted students, including those with concomitant learning disabilities, is likely related at least in part to inadequate teacher training" (Bianco, 2005; Bianco & Leech, 2010 Johnson et al., 1997; Silverman, 2003 in Crepeau-Hobson & Bianco, 2012, p. 149). In a real example of this, less than half of the teachers surveyed in BC felt that there was adequate in-service training for them to identify, and serve, special needs students - a category which would include

those with gifts and learning disabilities (Naylor, 2002). A few respondents even stated it should not be their job as teachers to deal with students with special needs. "If I had wanted to teach special education, I would have taken courses" (p.25). While Naylor does assert that this view is not held by the majority of teachers, it is present in schools in BC. Though new requirements have come into effect for teachers graduating since 2012, many teachers have no training in special needs at all. This may be part of the reason that "many educators still do not believe that gifted students can actually have diagnosable learning disabilities" (Assouline et al., 2010 p. 102). A brand new study also confirms this statement. Neumeister, Yssel and Burney (2013) found that "educators may not even be aware of, or believe in, the possibility of disabilities and gifts coexisting within the same individual" (p. 263). And Willard-Holt et al. (2013) found that teachers still "remain skeptical about giftedness coexisting with learning disabilities" (p. 248).

Despite these recent findings, identification and subsequent educational programming for twice-exceptional students cannot be optional: they must be allowed to grow and learn to their individual potential (Morrison & Rizza, 2007). The review done in BC more than a decade ago indicated that "school boards must ensure that each student's education program is based on education needs of the student and not based solely on funding" (Siegel & Ladyman, 2000 p. 13). The Supreme Court of Canada, in the Moore decision (Moore vs. British Columbia (Education), 2012), imposed an obligation on educational administrators to take measures to ensure no student is denied access to meaningful education because of a disability - regardless of their funding (Fontaine & Thistle, 2013). However, the decision made by the court did not indicate how the services should be provided when the budget does not allow for adequate staffing to serve all the twice-exceptional students. To complicate the issue further, though the provincial Ministry of Education creates the policies for the province, these policies are interpreted at the local level. Each school district, or even school within the district, may construe the policies differently so the educational services and programs offered may differ from school to school within the province (L. Kanevsky, personal communication, October, 2013). A recent study done in Ontario highlights the same problems in that province. The authors state that "each school board determines its own identification procedures and programming options...resulting in little consistency across the province" (Willard-Holt, Weber, Morrison & Horgan, 2013, p.247).

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The teachers in BC feel that there is little support from the Ministry for improving the programs and services for special needs students (Naylor, 2002). In fact, according to the BCTF, the BC Government has overseen the removal of 770 full time equivalent special support positions in Special Education since 2002 (BCTF, 2012). The recommendations made by the review team more than a decade ago to provide appropriate and relevant support for resource/support teachers who work with exceptional students has yet to be accomplished. Further, a change in funding policies in BC has meant that there has been a decrease in the number of students identified with an exceptionality in the past decade.

According to the BCTF's 2012 Education Facts, there were more than 10.000 fewer students in the Gifted Program in 2011-12 than in 2001-02 (Navlor, 2013). It is impossible to say if this decrease is solely due to funding cuts, or if it is in part due to the fact that classroom teachers are not trained to identify the traits of students with gifts, and possible learning disabilities. Furthermore, the BCTF reports that there has been growing concern in BC around the so-called 'grey area' students-those in need of support but without a designation (Naylor, 2013). The BC Special Education Policy states that schools should be organized to provide some first line resource support on site to ensure that teachers are prepared to work with the exceptional students who are assigned to them (BC Ministry of Education, 2011). However, the government of BC has reduced funding amounts to school districts. In some cases, as the case with Moore vs. British Columbia, the government's removal of funding forces school districts to decide which services to cut. This creates an "unforeseen level of responsibility for school districts" (Naylor, 2013, p. 11) because the Supreme Court determined in its ruling that "adequate special education is not a dispensary luxury" (Moore vs. British Columbia (Education), p. 362). While the Supreme Court of Canada did acknowledge that the school district's cuts to services were a consequence of provincial funding decisions, it still left the full responsibility for providing appropriate educational services for ALL students, with the district and not the province (Naylor, 2013). The BCTF (Naylor, 2013) expressed its disappointment that the BC Government has not addressed the issues arising from this decision. They also assert, that current proposals, which are a rewording of recommendations from 2000 (Siegel & Ladyman, 2000), are not likely realistic as they have not been addressed in the past thirteen years.

Both the review of Special Education (Siegel & Ladyman, 2000) and the BCTF (2012) agree that it is important that the programs of initial teacher training better prepare teachers with assessment and intervention skills. Research done in Ontario in 2013 echoes the findings of the BCTF. These authors found that "teachers may be unaware of effective strategies for twice-exceptional students" (Foley-Nicpon et al., 2011 cited in Willard-Holt et al., 2013 p. 248). Although this study was not conducted in this province, and therefore may not be generalized to teachers in BC, the results of this study do support the BCTF survey that confirms only 34% of professional teachers reported feeling prepared to work with students with these special needs (Naylor, 2002). This may be partially due to the fact that teachers are not given the full support they need of experts and others that can assist them in their classrooms with this group of special learners. However, as the numbers are reported on paper, this means that almost two thirds of the teachers in BC do not feel professionally prepared to work with special needs kids, including those who have gifts and learning disabilities.

This statement from BC teachers contradicts the literature from Alberta Education which claims that teachers can determine for themselves the best learning conditions for their students, and all teachers should have a basic understanding of the characteristics of exceptional students (Alberta Learning, 2004). Even teachers in BC that have had special education teacher preparation are likely to have had little or no training in the characteristics or needs of gifted children (L. Kanevsky, personal communication, October, 2013) which may in turn inhibit special educators from recognizing areas of noticeable strength in twice-exceptional students (Bianco & Leech, 2010). The review team recommended that the BC College of Teachers mandate a program of initial teacher education that includes special education (Siegel & Ladyman, 2000). This College was dissolved in 2011 and has been replaced with the Teacher Regulation Branch. As of September 2012, all new pre-service teachers must undertake at least one course or equivalency in "studies related to teaching students with special needs which include diagnosis, planning for instruction and assessment and evaluation" (BC Ministry of Education, 2014). It is unclear from the literature if teachers certified prior to this date are required undergo professional development in this same area.

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1.7. Conclusion

A critical review of the literature indicates that the experts in the education field have come to an understanding that students can have both gifts and learning disabilities. While more educators understand that children with high potential can simultaneously struggle with academic tasks at school, much more is yet to be learned. While it is true that more is known about the characteristics and needs of gifted students with learning disabilities today than in the past (Ruban & Reis, 2005), twice-exceptional learners continue to be at risk in the education system because the current system does not recognize their characteristics or provide the time and support these students need to be successful (Trail, 2011). Research indicates that, "currently, there exists no standard route for identification, particularly in consideration of wide variances in coexisting exceptionalities" (Willard-Holt et al., 2013). Students who have both gifts and learning disabilities need instruction in skills and strategies in the areas that are affected by their learning disability. Many scholars have concluded that "hidden disabilities may prevent students with advanced cognitive abilities from achieving their potential" (Colorado Department of Education, 2004, p. 8). Twice-exceptional students need an appropriately differentiated program in order to be successful (Weinfeld, et al., 2002). In order for students with gifts and learning disabilities to reach their full potential, teachers, parents, and students must work together (Besnoy, 2006). Successful, practical programming based on research and theory would allow G/LD students access to accelerated enriched instruction and maintain the rigor and high standards expected of all gifted students (Weinfeld et, al. 2002, p. 226). Evidence suggests that educational approaches that highlight and encourage twice-exceptional students' abilities while supporting their disabilities may be the best method for meeting all their educational needs (Assouline & Whiteman, 2011; Willard-Holt, Weber, Morrison & Horgan, 2013).

References

- Abraham, C., & Gram, J. (2007). Student assessment in BC's public schools: A guide for parents. Retrieved January 25, 2014 from http://www.bccpac.bc.ca/sites/default/files/resources/studentassessmentbcparent guide_2007.pdf
- Alberta Education, Learning and Teaching Resources Branch. (2006). Planning for students who are gifted. Edmonton, AB. Retrieved January 24, 2014 from https://education.alberta.ca/media/525558/ipp92.pdf
- Alberta Learning. Ministry of Learning, Learning and Teaching Resources Branch. (2004). The journey : a handbook for parents of children who are gifted and talented. Retrieved December 15, 2012 from http://education.alberta.ca/media/448831/journey.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.
- Assouline, S.G., Foley-Nicpon, M.F., & Whiteman, C. (2010) . Cognitive and psychological characteristics of gifted students with written language disability. *Gifted Child Quarterly, 54*(2), 115.
- Baum, S.M. (1989). Gifted but learning disabled: A puzzling paradox. Preventing School Failure, 34, 11-14. Retrieved May 20, 2013, from http://www.hoagiesgifted.org/eric/e479.html
- Beckley, D. (1998). Gifted and learning disabled: Twice-exceptional students. Storrs, CT: The National Research Center on the Gifted and Talented. Retrieved Dec, 14, 2012 from http://www.gifted.uconn.edu/nrcgt/newsletter/spring98/sprng984.html
- Bees, C. (2009). Gifted and learning disabled, a handbook. (4th ed.) Vancouver, B.C.: Advocacy Group for Gifted/LD.
- Besnoy, K. (2006). Successful strategies for Twice-exceptional students. Waco, TX: Prufrock Press.
- Bianco, M. (2005) The effects of disability labels on special education and general education teacher's referrals for gifted programs. *Learning Disability Quarterly*, *28*, 285–293.
- Bianco, M., & Leech, N. (2010). Twice-exceptional learners: Effects of teacher preparation and disability labels on gifted referrals. *Teacher Education and Special Education*, 33(4), 319-344.
- Blancher, J. (2002). Research reflections. Twice-exceptional: learning disabled and gifted. *Exceptional Parent Magazine*, *3*2(9), 100-103.

- BC Ministry of Education (2011). Special education services: A manual of policies, procedures and guidelines. Victoria, B.C.: BC Ministry of Education.
- BC Ministry of Education (2011). Supporting students with learning disabilities; a guide for teachers. Victoria, B.C.: BC Ministry of Education. Retrieved July 13, 2013 from http://www.bced.gov.bc.ca/specialed/docs/learning_disabilities_guide.pdf
- BC Ministry of Education (2014): Teacher Regulation Branch. Bylaws and policies. Retrieved February 5, 2014 from http://www.bcteacherregulation.ca/documents/AboutUs/BylawsPolicies/bylaws.pd f
- BC Teachers' Federation (2012). Better schools for B.C. the numbers tell the story. Retrieved January, 25, 2014 from http://www.bctf.ca/IssuesInEducation.aspx?id=29502
- BC Teachers' Federation (2012). 2012 BC Education Facts. Retrieved October 30, 2013 from http://www.bctf.ca/uploadedFiles/Public/Publications/2012EdFacts.pdf
- Brody, L.E., & Mills, C.J. (1997). Gifted children with learning disabilities: A review of the issues. *Journal of Learning Disabilities, 30*, 282-296.
- Colorado Department of Education. (2009). *Twice-exceptional gifted students with disabilities, level 1: An introductory resource book (*2nd ed.). Retrieved May 28, 2013 from http://www.cde.state.co.us/gt/download/pdf/twiceexceptionalresourcehandbook.p df
- Chauvin, S.A. & Kessler, E. (n.d) Retrieved February 13, 2013 from http://www.smartkidswithld.org/ld-basics/evaluation-diagnosis/making-sense-ofevaluation-scores
- 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), 109.
- Crepeau-Hobson, F., & Bianco, M. (2013). Promises and pitfalls for gifted students with learning disabilities. *Intervention in School and Clinic, 49*, 142-151.
- Foley-Nicpon, M. (2013). Gifted Child Quarterly's special issue on twice-exceptionality: Progress on the path of empirical understanding. *Gifted Child Quarterly*, 57,(4),207-208
- Foley-Nicpon, M., Allmon, A., Sieck, B., & Stinson, R. D. (2011). Empirical investigation of twice-exceptionality: Where have we been and where are we going? *Gifted Child Quarterly*, 55, 3-17.

- Ford, L., Swart, S., Negreiros, J., Lacroix, S., & McGrew, K. S. (2010). Use of the Woodcock-Johnson III NU Tests of Cognitive Abilities and Tests of Achievement with Canadian Populations (Woodcock- Johnson III Assessment Service Bulletin No. 12). Rolling Meadows, IL: Riverside Publishing.
- Jackson Gilman, B., Lovecky, D.V., Kearney, K., Peters, D.B., Wasserman, J.D., Kreger Silverman, L., Rimm, S.B. (2013). Critical issues in the identification of gifted students with co-existing disabilities: The twice-exceptional. *Sage Open*, 3, 1-16.
- Knapp, S.(n.d.) Twice-exceptional students: guidelines for success. Smart kids with learning disabilities. Retrieved October 2, 2013 from http://www.smartkidswithld.org/ld-basics/treatments-and-support/twiceexceptional-students-guidelines-for-success
- Krochak, L.A., & Ryan, T.G. (2007), The challenge of identifying gifted/learning disabled students. *International Journal of Special Education*, 22(3), 44-53.
- Lovett B. J., & Lewandowski L. J.(2006). Gifted students with learning disabilities: Who are they? *Journal of Learning Disabilities*, 39,(6), 515–527
- Lovett, BJ. & Sparks, R.L. (2013). The identification and performance of gifted students with learning disability diagnosis: A quantitative synthesis. *Journal of Learning Disabilities*, *46*, (4), 304-316.
- Magrath, K., (2013). Evaluation fundamentals. Smart kids with learning disabilities. Retrieved February 23, 2013 from http://www.smartkidswithld.org/?s=evaluation+fundamentals&x=0&y=0
- McCallum, R.S., Mee Bell, S., Coles, J.T., Caldwell Miller, K., Hopkins, M.B. & Hilton-Prillhart, A. (2013), A model for screening twice-exceptional students (Gifted with learning disabilities) within a response to intervention paradigm. *Gifted Child Quarterly, 57*(4), 209-222.
- Moore vs. British Columbia (Education) 2012 SCC 61. Retrieved May 12, 2013 from http://scc.lexum.org/decisia-scc-csc/scc-csc/scc-csc/en/12680/1/document.do
- Morrison, W. F., & Rizza, M.G. (2007). Creating a toolkit for identifying twice-exceptional students. *Journal for the Education of the Gifted*, 31(1), 57-76
- National Association for Gifted Children (1998). Position Paper: Students with concomitant gifts and learning disabilities. Retrieved November 1, 2013 from http://www.nagc.org/index.aspx?id=397
- National Association for Gifted Children (2008). Position Paper: The Role of Assessments in the Identification of Gifted Students. Retrieved November 1, 2013 from http://www.nagc.org/index.aspx?id=4022
- National Association for Gifted Children (2010). Position Paper: The use of the WISC-IV for gifted identification. Retrieved November 2, 2013 from http://www.nagc.org/index.aspx?id=6266

- Naylor, C. (2002). BC Teachers' views of special education issues; Data from the Spring 2001 BCTF Worklife of Teachers Survey Series 2: Special Education
- Naylor, C. (2013). Recent developments in special education/inclusion. BCTF research report retrieved June 20, 2013 from http://www.bctf.ca/publications.aspx?id=5630
- Neumeister, K.S., Yssel, N., & Burney, V.H. (2013). The influence of primary caregivers in fostering success in twice-exceptional children. *Gifted Child Quarterly*, *57*(4), 263-274.
- Philipot, D. (2009). What is special education law? 2E Newsletter 32(January) retrieved June 1, 2013 from http://2enewsletter.com/topic_past_issues_2009.html
- Reis, S. M., Neu, T. W., & McGuire, J. M (1995). Talent in two places: Case studies of high ability students with learning disabilities who have achieved. Storrs, CT: The University of Connecticut. Retrieved January 19, 2014 from http://www.gifted.uconn.edu/nrcgt/reports/rm95114/rm95114.pdf
- Reis, S. M., & Renzulli, J. S. (2009). Myth 1: The gifted and talented constitute one single homogeneous group and giftedness is a way of being that stays in the person over time and experiences. Gifted Child Quarterly, *54*(4), 233–235.
- Rizza, M. G., & Morrison, W. F. (2007). Identifying twice-exceptional children: A toolkit for success. *TEACHING Exceptional Children Plus*, 3(3) Article 3. Retrieved June 14, 2013 from http://escholarship.bc.edu/education/tecplus/vol3/iss3/art3
- Ruban, L.M., & Reis, S.M. (2005). Identification and assessment of gifted students with learning disabilities. *Theory Into Practice*, *44*(2), 115-124.
- Siegel, L., & Ladyman, S. (2000). A review of Special Education in British Columbia. Victoria, B.C.: BC Ministry of Education.
- Silverman, L.K. (2005). The two edged sword of competition: how to give to cope with learning disabilities. Retrieved April 22, 2013, from the Gifted Development Center website: http://www.gifteddevelopment.com/PDF_files/Twoedged%20sword%20of%20compensation.pdf
- Thistle, J.L., & Fontaine, D. (2013). Moore v. British Columbia (Education): Students with Learning Disabilities have a right to education comparable to that of the general student population. McInnes Cooper Lawyer Publications. Retrieved May 17, 2013 from http://www.mcinnescooper.com/publications/moore-v-british-columbiaeducation-students-with-learning-disabilities-have-a-right-to-educationcomparable-to-that-of-the-general-student-population/
- Trail, B.A. (2011). Twice-exceptional gifted children. Understanding, Teaching, and Counseling Gifted Students. Waco, Tx: Prufrock Press.
- Trokim,W.M. (2006). Regression to the mean: Research methods knowledge base. Web centre for social research methods. Retrieved January 19, 2014 from http://www.socialresearchmethods.net/kb/regrmean.php

- Tumbach, D., & Garcia Cook, G. (2013). Moore v. British Columbia (Education) What does it mean for inclusive education in Alberta? Online webinar: Alberta Regional Learning Consortium.
- United States Dept of Education, OSEP Policy Document, January 13, 2010 (Topic: Evaluation Procedures). Retrieved January 19, 2014 from http://www2.ed.gov/policy/speced/guid/idea/letters/2010-1/index.html
- Waldron, K. A., & Saphire, D. G. (1990). An analysis of WISC-R factors with gifted students with learning disabilities. *Journal of Learning Disabilities*, 23(8), 491-498.
- Webb, J.T., Amend, E.R., Webb, N.E., Goerss, J., Beljan P., & Olenchak, F.R. (2005). *Misdiagnosis and dual diagnosis of gifted children and adults*. Scottsdale, AZ: Great Potential 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.
- Willard-Holt, C. (1999). *Dual Exceptionalities*. Retrieved March 29, 2013 from LD online http://www.ldonline.org/article/5888/
- Willard-Holt, C., Webber, J., Morrison, K.L., & Horgan, J. (2013). Twice-exceptional learners' perspectives on effective learning strategies. *Gifted Child Quarterly*, 57(4), 247–262.

Chapter 2.

What Experts Know and Parents Need to Know About Students with Gifts and Learning Disabilities in British Columbia: A Guide for Parents

2.1. Introduction

As a parent of a child who has gifts as well as learning disabilities, I often wondered what more I could be doing to support my child at school. I looked to the literature written by experts in the field for answers, but often, what was written was theoretical, complex and academic, and at times confusing. This handbook was created as a companion to an academic literature review on twice-exceptional gifted/learning disabled students. It is meant as a guide for parents who may be new to the world of twice-exceptionality. Parents may feel unsure about how to best support their child and where to look for answers. The information provided in this handbook comes from current research but is written in a friendly voice to aid in parents' efforts to develop effective practices at home and at school for their child. Parents sometimes feel left out of the decision-making practices at school. This handbook hopes to offer guidance so that they can change that.

2.2. What is Twice-exceptional or G/LD?

What does twice-exceptional, or "2e", mean? What does it mean to be "gifted/learning disabled" (G/LD)? Are they the same? These are questions that current researchers and scholars are still trying to answer, so is it any wonder that parents may be confused when confronted with these labels for the first time? In Canada, as in the

United States, there is no federal definition for a twice-exceptional student.¹ Researchers, scholars, educators and policy makers have been trying to come up with a solid definition of a student who is twice-exceptional. "For many years, gifted students and students with intellectual disabilities were believed to be on opposite ends of the intellectual spectrum,"² but now we know this is certainly not the case.

Children with extraordinary abilities or talents are called gifted (G), and denoted by professionals as "exceptional", though in the field of gifted and talented education, attempts to define giftedness has resulted in no firm consensus.³ Children with a specific learning disability in one of the "three R's" (reading, writing or arithmetic) would qualify as learning disabled (LD) and also for the title of exceptional.⁴ When both exceptionalities manifest themselves in one person, the student is then considered "twice-exceptional", sometimes referred to as 2e. To clarify, when a student is described as twice-exceptional, there are other possible combinations of exceptionalities. This handbook focuses on only those children who have cognitive gifts and also learning disabilities and, therefore, would be considered G/LD.

Researchers explain that "students who are gifted and also have learning disabilities are those who possess an outstanding gift or talent and are capable of high performance, but who also have a learning disability that makes some aspect of academic achievement difficult."⁵ Even though this group of students may be given a label of G/LD it does not mean they will each learn in the same way or have the same strengths and weaknesses. Students who possess both gifts and learning disabilities are a "very heterogeneous group of students who represent all types of intellectual

⁵ Brody & Mills.

¹ Trail, B.A., (2011). *Twice exceptional gifted children: understanding, teaching, and counseling gifted students.* Waco, TX: Prufrock Press.

² Trail, p. 4.

³ Brody, L. E., & Mills, C. J. (1997). Gifted children with learning disabilities: a review of the issues. *Journal of Learning Disabilities, 30*(3), pp.282-286.

⁴ Blancher, J., (2002). Research reflections. Twice exceptional: learning disabled and gifted. *Exceptional Parent Magazine 32*(9), 100-103, p. 103.

giftedness and academic talent, in combination with various forms of learning disabilities."⁶

For the purpose of this paper, when I refer to students with gifts and learning disabilities, I am referring to those students who have superior intellectual ability and great academic potential but who also exhibit a significant discrepancy between this potential and their level of performance one or more academic areas such as reading, mathematics, spelling, or written expression. Their academic performance is substantially below what would be expected based on their general intellectual ability.⁷ This means that though a student may in fact be very smart, he or she may also struggle in some areas of school. "To be able to achieve, these students require remediation in their area of weakness or disability while at the same time, they require opportunities to enhance their strengths and their areas of giftedness."⁸

Currently, the Ministry of Education in BC has offered no formal definition of G/LD and, therefore, this has contributed to the challenge of providing support for these students.

There is no section for twice-exceptional students in the BC Ministry of Education Policy Manual. The Manual states that "all students should have equitable access to learning, opportunities for achievement and the pursuit of excellence in all aspects of their educational programs."⁹ In discussing twice-exceptional students, the Ministry's (2011) definition of the gifted does, in few words, address twice-exceptional students. They briefly state that "students who are gifted may also have accompanying disabilities and should not be expected to have strengths in all areas of intellectual functioning."¹⁰ Therefore, it would seem that a twice-exceptional student should be formally recognized as a student with special needs. The BC Ministry of Education definition of such a student reads: "A student with special needs is a student who has a disability of an

⁶ Brody & Mills, p. 285.

⁷ Brody & Mills, p. 282-286

⁸ Krochak, L.A., & Ryan, T.G. (2007), The challenge of identifying gifted/learning disabled students. *International Journal of Special Education, 22*(3), 44-53.

⁹ British Columbia Ministry of Education (2011). *Special Education Services: A Manual of Policies, Procedures and Guidelines.* Victoria, B.C.: BC Ministry of Education. p.1.

¹⁰ British Columbia Ministry of Education, p.52.

intellectual, physical, sensory, emotional or behavioral nature, *has a learning disability, or has special gifts or talents,* as defined in the Manual of Policies, Procedures, and Guidelines, Section E.^{*11} By this definition, twice-exceptional students are just that - students who have special needs in two different categories. Students who are twice-exceptional have special needs for their gifts and special needs for their learning disabilities. Students with both gifts and learning disabilities, therefore, need a program that both challenges them in their area(s) of strength, and supplies support and structure in their area(s) of weakness.

In most cases, having the actual label or designation is necessary to identify students as special needs; which, in turn, allows them to have an Individual Education Plan (IEP). An IEP is a documented plan for a student with special needs that describes individualized goals, adaptations, modifications, the services to be provided, and includes measures for tracking achievement.¹²

In BC a student can only have one designation reported to the Ministry of Education. This differs from the district or school level, where they may have multiple designations or labels. Because a student may be eligible in more than one category, it may be beneficial for a parent to have a discussion with the school based team when deciding on the child's designation.

The following is from the BC Ministry of Education K-12 funding statement: "the *Basic Allocation*, a standard amount of money provided per school age student enrolled in a school district, includes funds to support the learning needs of students who are identified as having *learning disabilities*, mild intellectual disabilities, students requiring moderate behaviour supports and *students who are gifted*".¹³ *Additional funding* is only available for the following categories: dependent handicapped, deafblind, moderate to profound intellectually disabled, physically disabled or chronic health impaired, visually impaired, deaf or hard of hearing, Autism Spectrum Disorder, and intensive behaviour interventions or serious mental illness. Therefore, if your child is designated as gifted

- ¹¹ British Columbia Ministry of Education, p.1.
- ¹² British Columbia Ministry of Education, p.v.
- ¹³ British Columbia Ministry of Education retrieved August 22, 2013 from http://www2.gov.bc.ca/gov/topic.page?id=539034EA83554537AEE3444F3A8279B0

(no extra funding attached) as well as having an Autism Spectrum Disorder (ASD, extra funding attached), money for additional resources would be available to support the child if he or she was reported to the Ministry with the ASD designation; and the dual designation could be used at the school level to provide appropriate educational programming.

One thing for parents to be aware of is that labeling a student can have both positive and negative influences on the expectations of others with regards to their child. "Being identified as gifted often raises expectations while the identification of a disability tends to lower teachers' expectations."¹⁴ A recent study done in the United States confirmed that disability labels attached to a student negatively influenced teachers' decisions to refer the student for gifted services.¹⁵ Unfortunately, teachers in general education are sometimes quick to highlight deficits and concerns while overlooking unusual talents and assets.¹⁶ Research has determined that the student's gifted potential should be nurtured and be the main focus of their instructional program, rather than focusing on remedial strategies.¹⁷ If a high ability child does have a dual designation, it is important to remember the child's strengths might in fact be the key to their academic successful in school, some experts believe that education should be approached from a strength-based perspective rather than focusing on child's challenges.¹⁸ This topic will be addressed more extensively in a subsequent section of this handbook.

¹⁴ Bianco & Leech, (2010) Twice exceptional learners: Effects of teacher preparation and disability labels on gifted referrals. *Teacher Education and Special Education*, 33(4), 319-344.

¹⁵ Bianco & Leech.

¹⁶ Blancher, p. 101.

¹⁷ 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.

¹⁸ 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.

2.3. Signs That Your Child May Have G/LD

Parents, who are much more aware of the potential of their child may be puzzled by a son or daughter who is performing only at grade level. Twice-exceptional students do frequently perform on grade level; this is not unusual. However, this may pose a challenge for identifying either exceptionality.¹⁹ If school professionals were to look deeper, would they find a girl who has amazing ideas for her writing project and can express very complex ideas verbally, but cannot write them in complete sentences? Perhaps they would see a boy that learns complex mathematical concepts quickly but struggles with simple computation. If a parent is noticing large discrepancies between what a child is capable of doing versus what he or she is actually achieving at school, he or she may be G/LD.

Twice-exceptional students often face challenges throughout their time in school. One of the first is accurately identifying them as twice-exceptional. "Many twiceexceptional students are not identified in the elementary school years,"²⁰ so do not be surprised if you have an older child who has not been identified that you believe to be G/LD. It is never too late to help your child achieve to his or her potential. Though it is preferable to recognize strengths and disabilities early so that proper intervention can be provided, the struggles of many twice-exceptional students may go unnoticed for many years.²¹

One characteristic of a gifted individual with a learning disability is that they tend to demonstrate higher academic potential then their average-ability peers - though this potential may not be realized in classroom assessments. "Hidden disabilities may prevent students with advanced cognitive abilities from achieving their potential."²²

¹⁹ 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.

²⁰ Moon, S. (2009). Myth 15: High-ability students don't face problems and challenges. *Gifted Child Quarterly*, 53(4) 274-276., p 275.

²¹ Colorado Department of Education. (2009). *Twice exceptional gifted students with disabilities, level 1: An introductory resource book* (2nd ed.). Retrieved May 28, 2013 from http://www.cde.state.co.us/gt/download/pdf/twiceexceptionalresourcehandbook.pdf

²² Colorado Department of Education, p. 8.

Table 2.1 provides a summary of some of the characteristics of children with both gifts and learning disabilities. Note: the list should be viewed as characteristics which are typical of many children who are gifted and who also have a learning disability, rather than characteristics which all such children possess. These twice-exceptional children do not form a simple, homogeneous group; they are a highly diverse group of learners.

Table 2.1.Possible Indicators of Strength and Problem Characteristics for
Twice-exceptional Children23

Indicators of Strengths

- · Have a wide range of interests that are not related to school or learning
- Have a specific academic talent or consuming interest are for which they have an exceptional memory and knowledge
- · Are interested in the "big picture" rather than small details
- · Are extremely curious and questioning
- · Possess high levels of problem-solving and reasoning skills
- Have penetrating insights
- Are extremely creative in their approach to tasks
- Have an unusual imagination
- Are humorous often in "bizarre" ways
- · Have advanced ideas and opinions which they express freely
- Have a superior vocabulary

²³ Adapted from Elizabeth Nielsen, 1994. This document appeared in the Colorado Department of Education (2009) Twice exceptional gifted students with disabilities, level 1: An introductory resource book (2nd ed.). This handbook quotes the original work from Nielsen, E.M., Higgins, L.D., Hammond, A.E., & Williams, R.A. (1993). Gifted children with disabilities. Gifted Child Today, 16(5), 9-12. Retrieved May 28, 2013 from http://www.cde.state.co.us/sites/default/files/documents/gt/download/pdf/twiceexceptionalres ourcehandbook.pdf

Indicators of Problems

- Have discrepant verbal and performance abilities
- Have deficient or uneven academic skills which cause them to lack academic motivation and/or avoid school tasks
- May be extremely frustrated by school and refuse to complete assignments that they are very capable of doing
- Have auditory and or visual/processing problems which may cause them to react slowly, to work slowly, and to appear to think slowly
- · Have problems with either long or short term memory
- Have poor handwriting or clumsiness
- · Lack organizational skills and study skills which makes them appear to be messy
- Unable to think in a linear fashion and have difficulty following directions
- Are distractible and unable to maintain attention for long periods of time
- · Are highly sensitive to criticism and may have poor social skills

Though twice-exceptional students are a very diverse group, there seem to be three common patterns of giftedness combined with learning disabilities reported by many experts in the field:

- 1. Learning disabilities that are masked by the giftedness: the child is seen as gifted and is able to use her giftedness to compensate for her problems
- 2. Giftedness and learning disabilities that mask each other: the child is seen to be average
- 3. Giftedness is masked by the learning disabilities: the child appears to have learning problems, while the giftedness is not seen.²⁴

Some experts believe that the second group, those whose abilities and disabilities mask each other, is perhaps the largest group of unserved students. These children are sitting in general classrooms qualifying for neither gifted nor special education programming because, though they may appear average, they are performing well below

²⁴ Webb, J.T., Amend, E.R., Webb, N.E., Goerss, J., Beljan, P., & Olenchak, F.R. (2005). *Misdiagnosis and dual diagnoses of gifted children and adults: ADHD, bipolar, Asperger's, depression, and other disorders.* Scottsdale, AZ: Great Potential Press, p. 298.

their potential.²⁵ This may be due to the fact that, when the masking effect is taken into account, both exceptionalities appear less extreme.²⁶

Once a child has been assessed and designated as G/LD, parents will sometimes remark that they think their twice-exceptional student went unnoticed because he or she did not exhibit the typical behaviors that will often lead to a referral, such as behavior problems or failing grades. Twice-exceptional students should be given the same consideration as a gifted student without a disability, and their academic progress should be compared to their potential and not only to their achievement in class.²⁷ Parents should not have to accept a well-meaning teacher saying that a low, but passing, grade from a high ability child is good enough.²⁸ Experts caution that a just-passing grade should not be used to deny services for the twice-exceptional student. Though an average grade may be indicative of the "norm", it is not necessarily the norm for a high ability child that could be achieving much more with the necessary supports in place.

2.4. Assessment and Identification

Children who have dual exceptionalities can unintentionally pose distinct challenges for both parents and educators. These kids possess, at the same time, the characteristics of gifted students and the characteristics of students with disabilities. This unique combination can be difficult to detect and to understand. Leading experts in the field of giftedness and learning disabilities tell us that early identification and appropriate intervention can help to prevent the development of social and behavioral problems that can occur when the needs of a gifted child with learning disabilities are overlooked. However, they also acknowledge that these children are often missed in the identification process used to designate students for gifted programming.²⁹ This is

²⁵ Brody & Mills cited in Beckley, 1998.

²⁶ Bianco & Leech, p. 319-320.

²⁷ Morrison, W. F., & Rizza, M.G. (2007). Creating a toolkit for identifying twice exceptional students. *Journal for the Education of the Gifted*, *31*(1), 57-76.

²⁸ Morrison & Rizza, p.63.

²⁹ Alberta Learning. Ministry of Learning, Learning and Teaching Resources Branch (2004). *The journey : a handbook for parents of children who are gifted and talented.*

unfortunate because research has shown that early identification within the first years of schooling can reduce or even prevent many problems.³⁰

Recent literature tells us that students who have gifts and disabilities may not be detected because "schools may stop looking for exceptional abilities once a learning disability has been identified."³¹ Some parents choose not to have their child assessed if he or she is happy in their current classroom situation, are receiving appropriate academic challenge and intellectual stimulation, and are not in need of special programming.³² If you believe that your child may have G/LD and is not receiving the education he or she requires, initiate and persist in your efforts to have your child assessed. The disability may be obscured because she or he may not fall below grade level expectations in their achievement so the school may be reluctant to initiate testing as they may not recognize giftedness when masked by disability. Proper understanding of twice-exceptionality is needed to recognize the difference between a high ability student's potential for success and his or her actual achievement in the classroom.³³

Psycho-educational testing can be very helpful when identifying twice-exceptional kids. These tests can tell us many important pieces of information about a child. "Cognitive assessments can provide specific information on a student's strengths and can be used to identify hidden disabilities."³⁴ An educational diagnosis is sought in order to gain a better understanding of a child's learning needs, to define the student's academic strengths and weaknesses, and then to translate them into an IEP.³⁵ There are many different assessments that can be used and may or may not be offered to students. The current research indicates that a multifaceted approach should be used as this is the most valid approach to identification. All "evaluation and assessment [done] should be

³⁰ Siegel, L., & Ladyman, S. (2000). A review of Special Education in British Columbia. Victoria, B.C.: BC Ministry of Education.

³¹ Alberta Learning, p. 59.

 ³² Alberta Learning. Ministry of Learning, Learning and Teaching Resources Branch (2004). p. 35.

³³ Baum, S. & Owen, S. (2003) in Morrison & Rizza, p. 59.

³⁴ Trail, p. 77.

³⁵ Chauvin, D. & Kessler, E. Making sense of evaluation scores. SmartKids with Learning Disabilities accessed online 02/23/2013 at http://www.smartkidswithld.org/ld-basics/evaluationdiagnosis/making-sense-of-evaluation-scores

designed to maximize the student's demonstration of his/her knowledge of concepts and content."³⁶

The assessment process should include IQ and achievement tests, parent and teacher rating scales, behavioral scales, and curriculum-based portfolios.³⁷ Parents may have to locate a private testing facility for IQ and achievement testing, and there are a few excellent ones in BC. For many years people in the Lower Mainland have used Able Developmental Clinic³⁸ for full assessment services, and in the Interior there is the Okanagan Ability Centre³⁹. There are also dozens of registered psychologists that can do a psychoeducational assessment of your child – just make sure that an psychologist you choose is in good standing with the BC Psychological Association.⁴⁰ It is up to each parent to ensure the service providers they choose are the right ones for their family.

Depending on the district, you may be able to have the psycho-educational testing done through your child's school, though, generally, limited resources are available and the wait-list is often lengthy. Either way, it is important to have a licensed psychologist do the standardized testing with them.

The suggested current rate of the BC Psychological Association for psychodiagnostic assessments is \$200 per hour of testing.⁴¹ The hours involved in the testing process can vary widely, depending upon the age of the child and the depth of the assessment. Some psycho-educational assessments take a minimum of 5 hours, while others can last up to 8-10 hours. Some testing facilities will have a set fee for an assessment and some will offer a sliding scale for fees for families in need. Parents should expect to pay a minimum of \$500 – though often closer to \$2000 - for private testing and feedback. Extended health plans offered through a parent's employer may

³⁶ Weinfeld et al., p. 231.

³⁷ Krochak & Ryan, pp. 44-53.

³⁸ http://www.ableclinic.ca/

³⁹ http://www.okanaganabilitycentre.com/FAQ.html

⁴⁰ http://www.psychologists.bc.ca/find_psychologist_full

⁴¹ British Columbia Psychological Association website accessed 08/20/2013 at http://www.psychologists.bc.ca/

offer a set amount of coverage for psychological services per year. It would be beneficial to inquire prior to testing to see if coverage may exist for assessing your child.

The most important part of the assessment comes after the testing is complete, when a parent needs to understand the results. In some cases, the written report may be confusing, and parents and teachers may not know how to interpret it because it may contain a large amount of data and technical language. "Regrettably, parents often walk away from meetings feeling confused or overwhelmed by the results."⁴² All jargon should be well defined in the report by the psychologist: so, if it is not, insist on explanations for anything not understood. A thorough evaluation has four parts: developmental history; cognitive assessment; academic achievement; and, behavior, social and emotional functioning.⁴³ Each one of these aspects of the evaluation should be fully discussed with parents. The report should contain specific recommendations which can be used to develop your child's Individual Education Plan (IEP).

An IEP is a written record of planning prepared with input from students, parents/guardians and school personnel. It describes the students' current learning, strengths, styles and needs, and identifies appropriate goals to help determine the degree of intervention needed. An IEP also describes individual team members' responsibilities, and provides coherent plans for a student's learning and service needs. It should include planning for a student's transitions and assist in determining criteria for evaluation. As well, it should help to determine how well a student is meeting his or her goals. It should form the basis of reporting the student's progress. Parents must be given the opportunity to be consulted in the planning process and should receive a copy of the IEP⁴⁴

The Wechsler Intelligence Scale for Children, 4th ed. (WISC-IV) is one of the most widely used individual assessments of cognitive ability in BC. When most parents think of assessments they think of IQ testing, which is what this assessment is. The ranges of intellectual functioning that are scored and then reported as an IQ score would be similar to these:

⁴² Demystifying IQ accessed 03/05/2013 at http://www.autismoutreach.ca/forum/demystifying-iq

⁴³ Chauvin & Kessler.

⁴⁴ British Columbia Ministry of Education: Special Education. Retrieved 09/02/2013 from http://www.bced.gov.bc.ca/specialed/sid/10.htm

- Very superior range: very high functioning/scores above 130
- Superior range: well above average functioning, scoring 120 130
- High average range: above average functioning, scoring 110 120
- Average range: average functioning, scoring 90 110
- Low average range: below average functioning, scoring 80 90
- Borderline range: below average functioning, scoring 70 80

Well below average: well below average functioning, scoring below 70⁴⁵

The WISC-IV can give insights related to the student's cognitive strengths and weaknesses. The National Association of Gifted Children (NAGC) in the United States importantly points out in their position statement on the WISC-IV that

during testing, abstract reasoning tasks best identify cognitive giftedness, while processing skills measures do not. Gifted children with or without disabilities may be painstaking, reflective and perfectionistic on paperand-pencil tasks, lowering their Processing Speed Index scores. Furthermore...they may struggle when asked to recall non-meaningful material (Digit Span, Letter-Number Sequencing), lowering their Working Memory Index, even though they excel on meaningful auditory memory tasks that pique their interest.⁴⁶

However, it is important to remember that the full scale IQ (FSIQ) scores of G/LD students are not a reliable indicator of ability because these students commonly present with an uneven profile of abilities. For example there could be a large discrepancy between the child's lower abilities in working memory and processing speed versus a higher abilities rating on tests of visual spatial ability, and yet their global IQ score could still be in the average range.⁴⁷ The subtest scores should be the focus as they give more important information than a composite FSIQ score. "In order to accurately describe an individual's strengths and weaknesses, psychologists will often refer to performance on different

⁴⁵ This document was part of a handout from Able Developmental Clinic as part of their parent package after psycho-educational testing is done.

⁴⁶ National Association for Gifted Children: NAGC Position Statement on the WISC-IV. Retrieved 08/22/2013 at http://www.nagc.org/index.aspx?id=2455

⁴⁷ Glenchur, K. Understanding the results of psycho-educational testing. Accessed 02/23/2013 at http://www.greatschools.org/special-education/LD-ADHD/902- understanding-the-results-ofpsycho-educational-testing.gs

indexes (also referred to as scales) and subtests (also referred to as individual tests)."⁴⁸ The NAGC maintains that it is recommended practice, when interpreting test scores, to derive the General Ability Index (GAI) when there are large disparities among the Composite/Index scores. The GAI is an optional index score for the WISC-IV and is derived from the Verbal Comprehension and Perceptual Reasoning subtests. It provides an estimate of general intellectual ability, with *reduced emphasis* on working memory and processing speed relative to the FSIQ which is often where G/LD students have their lowest scores. It is important to understand that the GAI is not a substitute for the FSIQ and should not be considered as the same.⁴⁹ "The Verbal Comprehension Index (VCI) and the Perceptual Reasoning Index (PRI) are also independently appropriate for selection to programs for the gifted, especially for ... twice-exceptional students".

Another set of tests a parent may encounter in the assessment process are achievement tests. One example is the Woodcock Johnson Tests of Cognitive Abilities – 3rd ed. (WJIII). "The General Intellectual Ability (GIA) score in the WJ III is based on a weighted combination of tests that best represents a common ability underlying all intellectual performance."⁵¹ Examples of some of the subtests included in this battery are scales that measure information - processing abilities (including tests of working memory, planning, naming speed, and attention). Though these particular tests may not be sensitive to gifts, they do include measures of many academic domains, such as reading comprehension and math reasoning,⁵² that are reliable in identifying areas of difficulty. Many other types of testing may be used depending on the school district and the goal of the assessment.

⁴⁸ http://www.autismoutreach.ca/forum/demystifying-iq accessed 03/05/2013

⁴⁹ The what, when, and how of the Wechsler General Ability Index. Retrieved 09/02/2013 from http://www.pearsonassessments.com/hai/Images/Products/Wechsler/Wechsler_GAI.pdf

⁵⁰ National Association for Gifted Children: NAGC Position Statement on the WISC-IV. Retrieved 08/22/2013 at http://www.nagc.org/index.aspx?id=2455

⁵¹ Nelson Education: Canada's Learning Advantage : Assessments, WJ III Tests of Cognitive Abilities with Normative Update retrieved 08/22/2013 from http://www.assess.nelson.com/testind/wj-3-cog.html

⁵² WJ III Tests of Achievement Clusters. Retrieved 12/30/2013 from http://www.riverpub.com/products/wjIIIAchievement/pdf/ach_clusters.pdf Riverside Publishing.

There should be a follow up meeting, and parents should prepare for it by having an understanding of the following terms: the bell curve, test reliability, test validity, the mean, percentile ranks and standard deviations. For an explanation of these terms, please see the article written by Kim Glenchur: *Understanding the Results of Psycho-educational Testing* as it is quite informative.⁵³

Additionally, the BC Ministry of Education also has an extensive Glossary of Definitions and Terminology on their website to assist parents in their understanding beyond the terms related to testing.⁵⁴

Standard deviations are a very important statistic to understand. The standard deviation for Full Scale scores on the WISC-IV IQ test is 15. This means that the majority of full scale scores (about 70%) fall somewhere between one standard deviation below and one standard deviation above 100. In other words, IQ scores for this range are between 85 and 115 and are considered the "average" or normal intelligence range. The further away the score is from 100, the fewer people we will find with that score. About 95% of all the test scores lie within two standard deviations from the mean. In other words, people with IQs between 70 and 85 and between 115 and 130 make up about 25% of the population. That leaves only about 5% of the population who will have scores somewhere beyond those first two standard deviations away from the norm.⁵⁵

Psycho-educational testing and scoring procedures may at first seem a bit overwhelming to parents. This is a totally understandable reaction. However, once a parent is prepared with a bit of prior knowledge, and assisted by school-based team members, they should be able to better understand the test results and their child's academic strengths and weaknesses. This information will assist parents in advocating for the best practices and resources for their twice-exceptional child throughout their school journey.

⁵³ Glenchur, K.

⁵⁴ http://www.bced.gov.bc.ca/specialed/special_ed_policy_manual.pdf#page=5

⁵⁵ Gifted Kids. Online article retrieved 08/16/2013 from http://giftedkids.about.com/od/gifted101/qt/IQ_scores.htm

2.5. Making Your Child's School Experience the Best it Can Be

It is important to create a partnership with the school to develop a suitable education plan for your child that addresses his/her needs. One positive thing that parents can do to assist their child is to keep in close contact with their child's teacher. Should you feel that your child is experiencing problems in school, you might want to schedule a meeting with the classroom teacher to communicate your concerns. Share specific examples of your child's work, strengths, struggles and interests. The regular classroom teachers are often the chief source of referrals to special education services and gifted programs in their school.⁵⁶

Parents should also become familiar with the School-Based Team as it is the team who will recommend students for psycho-educational assessments and refer students to the district personnel such as the District Resource Teacher for gifted students as well as those with learning disabilities.⁵⁷ The School-Based Team is a team of personnel who has a formal role to play in ensuring each student has an appropriate learning plan: they are the problem solving unit assisting your son's or daughter's classroom teacher to develop and implement instructions, and/or management strategies and support resources for students with special needs in school.⁵⁸ The composition and role of the School-Based Team can be different in each district or school, depending on staff and school needs and resources. The BC Ministry of Education website mentions that "all districts and schools do not use the same terms to describe special education personnel."⁵⁹ Usually the team consists of an administrator, a counsellor, and a specialist teacher as well as the classroom teacher.⁶⁰

⁵⁷ British Columbia Ministry of Education.

- ⁵⁹ British Columbia Ministry of Education: Special Education http://www.bced.gov.bc.ca/specialed/sid/10.htm
- ⁶⁰ Vancouver School Board Education Special Education Glossary. Retrieved 09/01/2013 at http://www.vsb.bc.ca/special-education-glossary

⁵⁶ Boodoo, Bradley, Frontera, Pitts, & Wright, (1989) in Brody & Mills, p. 289.

⁵⁸ British Columbia Ministry of Education: Special Education. Retrieved 08/20/2013 from http://www.bced.gov.bc.ca/specialed/

Parents need to be advocates for their children. No one else knows as much, or cares as much about your child as you do. Parents play a critical role in recognizing and advocating for the needs of their twice-exceptional child.⁶¹ Here are some tips from Smart Kids with Learning Disabilities⁶² to get parents started.

- Trust your internal instincts. If you feel in your heart something is not right, don't allow people to tell you he or she will grow out of it. You need to find out what's getting in the way of your child's progress.
- Take your concerns to school personnel starting with the teacher. Put your questions and concerns in writing and remember to be respectful and persistent.
- · Get your child tested at school, or by an outside evaluator, but...
- Be aware, that IQ test scores are not a reliable measure of intelligence for children with learning disabilities IF the subtests are averaged out. This result may obscure both the strength and the weakness.
- If your child is failing tests despite knowing the material, do not accept test taking anxiety as a good explanation. Most likely your child is not being taught or tested in a way that allows him/her to demonstrate what they know.
- Think positively that most educators are committed to helping children learn, so take an active role in the school and build alliances with the teachers and staff.
- Support your child's strengths and believe in your child!

Most experts believe that the best way to approach education for twiceexceptional students is to have a dual emphasis. Figure 2.1 on the following pages illustrates how this approach might look in an educational program for a G/LD student.⁶³ This programming would both nurture their strengths and address their challenges. The school should address both exceptionalities by designing a balanced educational program that allows G/LD students to reach their full potential by supporting them in areas in which they struggle and allowing them to excel in the areas of their strength. In effect, a dual differentiation.

- ⁶² http://www.smartkidswithld.org
- ⁶³ Colorado Department of Education. (2009). *Twice exceptional gifted students with disabilities, level 1: An introductory resourse book (*2nd ed.) Retrieved 05/15/2013 from http://www.cde.state.co.us/gt/download/pdf/twiceexceptionalresourcehandbook.pdf

⁶¹ Neumeister, K.S., Yssel, N., & Burney, V.H. (2013). The influence of primary caregivers in fostering success in twice exceptional children. *Gifted Child Quarterly, 57*(4). 263-274.

Research has indicated that there may be positive social and emotional effects, as well as positive academic effects, of programming with a "dual emphasis". For example, accelerated or enriched academic experiences should be made available to those students who are identified as having both gifts and learning disabilities.⁶⁴ Nurturing both a child's strengths and interests may increase their resilience and it may help the child become more confident in their areas of high abilities. This, in turn, will likely assist students with dual exceptionalities in developing strategies to compensate for their areas of challenge. "Ideally, a continuum of placement options should be available so that teachers can develop a plan that builds heavily on students' strengths but also provides academic and cognitive remediation as well as support for social and emotional needs".⁶⁵ With the dual emphasis approach, teachers shape instruction with multi-option assignments that enable students to use their strengths to demonstrate their knowledge while also including assignments in which students learn coping strategies in order to be successful in the learning environment.⁶⁶

⁶⁴ Bracamonte, M., 2010. Twice exceptional Students: Who Are They and What Do They Need? 2-E. The twice exceptional newsletter. Retrieved 05/20/2013 from http://2enewsletter.com/article_2e_what_are_they.html

⁶⁵ Bracamonte (n.p.)

⁶⁶ Colorado Department of Education. (2009). *Twice exceptional gifted students with disabilities, level 1: An introductory resource book (*2nd ed.) Retrieved 05/15/2013 from http://www.cde.state.co.us/gt/download/pdf/twiceexceptionalresourcehandbook.pdf



Figure 2.1. Nurture strengths and interests while addressing challenges

The "contrast between the student's abilities and disabilities creates conflict, and tends to make school a frustrating experience for the twice-exceptional learner, their parents and the teacher."⁶⁷ Twice-exceptional learners are at risk in the education system because the system often does not recognize their atypical characteristics or provide the time and support they need to be successful. Expert educators interested in twice-exceptionality believe that successful, practical programming based on research and theory guarantees gifted/talented and learning disabled students access to accelerated enriched instruction. By doing so, the high standards expected of all gifted students are maintained, while simultaneously providing the accommodations these students need to be successful.⁶⁸ This is the goal that educators should all be trying to attain for all children, however they learn.

In the pursuit of the correct combination of educational needs for students, it is important to remember that, though G/LD students may be at risk, "the number one protective factor in the lives of children who are twice-exceptional is ongoing parental understanding and support".⁶⁹ Parents can often provide valuable insight, because they know their child's strengths and interests. Parents will often notice a change in the child's behavior, which may indicate that something is wrong, long before the problem is evident to teachers. "Twice-exceptional learners can be empowered to overcome their disabilities by their families."⁷⁰ Family support is fundamental! So, what can parents of twice-exceptional children do to support them?

- Be involved in your child's school program and provide emotional support and professional counseling if needed.
- Create a home environment that nurtures your child's strengths and interests.
- Be aware that as a parent you may be able to identify learning struggles or poor academic success in the face of high ability where many educators may see only your child as an average student.

- ⁶⁹ Blancher, p. 103.
- ⁷⁰ Trail, p. 129.

⁶⁷ Trail, p. 3.

⁶⁸ Weinfeld et al.

Experts note that "advocating for twice-exceptional learners can be extremely difficult. Parents'... attempts may be met with fierce resistance."⁷¹ This is mainly because your child's teacher, while well-intentioned, may be focusing only on what the child is not doing, or is doing poorly. Many G/LD students complain about being bored in school, yet the teacher will have examples of incomplete assignments to dispute the child's claim. Therefore, parents will need to explore the options available to address a child's giftedness as well as his/her learning disability by looking into the local school district's policies, along with those of the province.⁷² It is important for parents to value a child's strengths, and to model positive ways of dealing with challenges. Recent research underscores the importance of parental involvement, and suggests that, despite the difficulties, the importance of parental advocacy cannot be underestimated.⁷³ Be understanding towards the child. "Twice-exceptional learners experience extreme frustration trying to deal with both exceptionalities."⁷⁴ Parents need to listen to, care for, and advocate for their children in school, just as in every other aspect of life.

2.6. Conclusion

Parents need to be able to support and guide their children through the education process. While each child is unique, there are some traits common to many students with both gifts and learning disabilities and some common ways that parents can help to guide a child's educational path to make it an easier journey for her/him. A parent's primary responsibilities are to love their child, believe in their child, to advocate for them, and to keep their best interests at heart while navigating the education system in BC. Parents are not alone in this journey; there are many support groups available that can offer guidance and experience, such as the G/LD Network of BC⁷⁵.

⁷¹ Trail, p. 133.

⁷² Blancher, J. (2002). Research reflections. Twice exceptional: learning disabled and gifted. *Exceptional Parent Magazine* 32(9), 100-103.

⁷³ Neumeister, Yssel, & Burney.

⁷⁴ Trail, p. 138.

⁷⁵ Gifted/Learning Disabled Network a website dedicated to the gifted/learning disabled student in BC. Accessed 08/14/2013 at http://www.gldnetworkbc.ca/

Don't be afraid to ask for help from the classroom teacher, from the educational support staff, from a support group or from your child. Each district differs in what they can offer, so do not hesitate to ask about the resources that are available in your district. Gather as much information as you can in order to allow your child to thrive and grow as they progress through their schooling and live up to their true potential. With accommodations and support, children with both gifts and disabilities can – and will - thrive in school.

2.7. Helpful Resources

There are hundreds of articles and books published on Giftedness, Learning Disabilities, and Dual Exceptionalities. Many of these are written in academic terms and are sometimes difficult to understand. The following list may be helpful for parents as a starting point. These resources are written in parent friendly-terms and many offer links to other informative websites.

- *Twice-exceptional Gifted Children, Understanding Teacher, and Counselling Gifted Students,* by Beverly A. Trail, Ed.D. Waco, TX: Prufrock Press
- Successful Strategies for Twice-exceptional Students, by Kevin D. Besnoy, Ph.D. Waco, TX: Prufrock Press Twice-exceptional gifted students with disabilities, level 1: An introductory resource book (2nd ed.). by the Colorado Department of Education. (2009). http://www.cde.state.co.us/gt/download/pdf/twiceexceptionalresourcehandbook.p df
- Gifted and Learning Disabled a Handbook, 4th Edition 2009, by Corinne Bees. This is produced in conjunction with the Vancouver School Board and its GOLD program. It can be downloaded here http://www.vsb.bc.ca/sites/default/files/schoolfiles/Programs/GiftedLDHandbook.pdf
- The Journey: A Handbook for Parents of Children Who Are Gifted and Talented. While this is written about giftedness and not learning disabilities, there is a lot of helpful information about how to approach your child's school and how to advocate for your student. It can be downloaded here http://education.alberta.ca/media/448831/journey.pdf
- The BC Ministry of Education, Special Education Services: A Manual of Policies, procedures and guidelines. This is a long document, but very important in understanding the policy as it specifically related to schooling in British Columbia. It can be downloaded here http://www.bced.gov.bc.ca/specialed/special_ed_policy_m anual.pdf
- Smart Kids with Learning Disabilities. Excellent webpage and resource centre with a free e newsletter and links to many other informative sites and literature. http://www.smartkidswithld.org/

- 2-E the Twice-exceptional Newsletter. This is a very informative website and email subscription service covering all topics 2E. An easy to understand definition of what twice-exceptionality is can be found here http://2enewsletter.com/topic_2e_what_is.html A sample and much more information can be found here http://www.2enewsletter.com/topic_about_sample.html
- The G/LD network of British Columbia. A website and information about the dual diagnosis of being gifted and learning disabled. It is the place in BC to connect with Gifted/LD peers and parents. It can be accessed here https://www.gldnetworkbc.ca
- Note: Sample websites are listed in this document. These sites are provided as a service only. Parents and educators using the sites are responsible for evaluating the relevance and accuracy of the information.