TWICE EXCEPTIONAL: GIFTED STUDENTS WITH LEARNING DISABILITIES

Intellectually gifted individuals with specific learning disabilities are the most misjudged, misunderstood, and neglected segment of the student population and the community. Teachers, school counselors, and others often overlook the signs of intellectual giftedness and focus attention on such deficits as poor spelling, reading, and writing. (Whitmore & Maker, 1985, p. 204)

This packet focuses on providing educators with basic information for recognizing and understanding gifted students with learning disabilities (LD). Characteristics of this population are discussed as well as strategies to engage students in the learning environment and models for special programming. Finally, tips for teachers and parents are provided to enhance instruction and interactions to meet the unique needs of gifted students with LD.

Definition
Gifted students with learning disabilities are a unique subgroup of students who demonstrate both superior intellectual ability and specific learning problems. Also known as “twice exceptional” and “dually exceptional,” gifted students with LD have cognitive, psychological, and academic needs that appear distinct from those of either gifted populations or those with LD (Crawford & Snart, 1994). Students with dual exceptionalities tend to fall into two categories: (a) those with mild disabilities whose gifts generally mask their disabilities and (b) those whose disabilities are so severe that they mask the gift (Baum & Owen, 2004). Often these students are not identified for either gifted or special education services due to the combination of their advanced capabilities and difficulties. High intellectual functioning often compensates for the learning difficulty, obscuring both the gifted potential and the learning disability (Baum, 1990; 1998). In essence, the gift masks the disability, and the disability masks the gift.

This population of learners is highly diverse. However, in an effort to help recognize and understand the interaction of giftedness and learning disabilities, each category and potential combinations of the two are outlined below.

- **Gifted** behavior consists of an interaction among three basic clusters of human traits: above-average ability, high levels of task commitment, and creativity. Students who are gifted are considered to be academically talented individuals who have abilities in one or more domains that are significantly advanced (Renzulli, 1978).

- **Learning disability** is characterized as a specific learning difficulty that is demonstrated by a substantial discrepancy between performance and ability. Students with LD seem to be performing below their potential in one or more areas and are most often provided with remediation in deficit areas.

- **Gifted/LD** behavior results from the interaction of high ability and a learning disability that may create social and emotional difficulties as students struggle to understand why they can know the answer, but are unable to say or write it correctly (Reis & Colbert, 2004).

- **Gifted/other disabilities** characterized by high activity level, impulsivity, low frustration tolerance, and social/emotional difficulties may co-exist with giftedness and lead to additional
diagnoses. The most prevalent diagnosis identified as co-occurring with giftedness is attention deficit hyperactivity disorder (ADHD) (Neihart, 2003; Webb et al., 2005). Since LD and ADHD often co-exist, it is conceivable that individual students show characteristics related to multiple categories of exceptionality (e.g., giftedness, LD, and ADHD).

**Characteristics**
Students who are both gifted and have LD exhibit remarkable talents in some areas and disabling weaknesses in others (Baum, 1990). In general, these students display high verbal expressive ability and good conceptual understanding concurrent with significant academic underachievement and frustration or a lack of motivation (Crawford & Snart 1994). Many students are forgetful, sloppy, and have poor organizational skills. They may be inattentive in class, struggle with basic spelling or reading skills, have poor peer relationships and low self-esteem, dislike school, or demonstrate school failure. At the same time, they may have excellent vocabularies, exceptional analytic and comprehension skills, show extraordinary interest or talent in a particular area, or use sophisticated problem-solving skills (Robinson, 1999). Often these students’ problems manifest themselves only in the school setting, being highly active and motivated to pursue hobbies and other interests while at home (Silverman, 1989). According to Renzulli (1978), the creative abilities, intellectual strengths, and passion that these students bring to their hobbies are clear indicators of their giftedness (Robinson, 1999).

Students who are identified as gifted/LD have characteristics that do not fit neatly into either the gifted or the learning disabilities category. In general, these students are bright and sensitive, and appear to be acutely aware of their difficulties with learning. They tend to generalize their feelings of academic failure to an overall sense of inadequacy (Baum, 1990). Often rated by teachers as the most disruptive at school (Baum & Owen, 1988), these students are frequently off task; they may act out, daydream, complain of headaches and stomachaches; they are often easily frustrated and may use their creative abilities to avoid tasks (Baum & Owen, 1988). These characteristics often lead to diagnoses of emotional or attentional difficulties (Webb et al., 2005). Educators need to be aware of the characteristics of giftedness to ensure that these students are not labeled incorrectly and harmfully. It is imperative that educators attend to the gift as well as the disability.

**Identification**
Early identification of students who are gifted with LD is crucial (Dole, 2000). Many students who are gifted/LD are not identified until high school and college when academic work increases in difficulty. In earlier years, these students may appear to be functioning normally, but are usually performing well below their potential. The social/emotional consequences of having unrecognized dual exceptionalities can be pervasive (Dole, 2000). Recognizing the unique characteristics of this group may help teachers and other school personnel to identify students earlier and provide the necessary interventions for success.

As with other students with dual exceptionalities, high-ability students often learn compensation strategies on their own, so their giftedness may mask the LD. Conversely, the LD tends to depress ability and achievement test scores, thus making identification of giftedness problematic. Gifted students with LD tend to lag two to three years behind their age peers in social and emotional maturity. This has significant implications for identification of these students for gifted services. Additionally, since many characteristics of giftedness or creativity are similar to those of typical students with LD or
ADHD, these students may be at risk for misdiagnosis (Webb et al., 2005). Finally, as most observations and referrals for gifted services originate with the classroom teacher, the not-so-attractive characteristics of creativity (e.g., tendency to question authority, high activity level, intensity) combined with educational difficulties exacerbate the misdiagnosis problem and may lead to a referral to a physician for medication. These issues make it critically important that educators and parents work together to observe where, when, and how these behaviors occur in order to separate the ADHD or LD from the gifted characteristics.

Students who are gifted/LD display cognitive strengths and challenges as well as distinct behavioral and emotional outgrowths of both giftedness and LD (Nielsen, Higgins, Wilkinson, & Webb, 1994).

**Cognitive Strengths**
- Superior vocabulary
- Uninhibited expression of opinions
- Uncanny sense of humor (e.g., sophisticated use of metaphor)
- Highly imaginative
- Extreme creativity
- Extreme sensitivity and intensity
- Penetrating insights
- High levels of problem solving and reasoning
- Interest in the “big” picture
- Specific talent in a consuming interest area for which students have exceptional memory and knowledge
- Wide range of interests that are not related to school learning

**Cognitive Challenges**
- Discrepant verbal and nonverbal performance abilities
- Deficient or extremely uneven academic skills
- Auditory, perceptual, or visual perception problems
- Problems with long- and/or short-term memory
- Perceptual-motor difficulties evidenced by clumsiness, poor handwriting, or problems completing fine-motor tasks
- Slow responses; students may appear to work slowly and think slowly
- Lack of organizational and study skills; often messy
- Difficulty following directions; nonlinear thinking
- Easily frustrated: students give up quickly on tasks; will not risk being wrong or making mistakes
- Lack of academic initiative; appear academically unmotivated; avoid school tasks; frequently fail to complete assignments
- Difficulty expressing ideas and getting to the point; difficulty expressing feelings
- Blaming others for their problems
- Distractibility; difficulty maintaining attention for long periods of time
- Difficulty controlling impulses
- Poor social skills: students may demonstrate antisocial behaviors
- Over-sensitivity to criticism
• Lack of ability to critically self-evaluate strengths and weaknesses

**Markers of the Combination of Giftedness and LD**

• Poor memory for isolated facts, but excellent comprehension
• Preference for complex and challenging materials; easily distracted
• Lacking self-regulation and goal-setting strategies
• Boredom with rote or memorization tasks, but often disorganized
• Difficulty reading, writing or spelling, but excellent oral language skills
• Skill in manipulating people and situations, but poor interpersonal skills
• Poor performance on simple facts such as addition and subtraction, but capable of complex, conceptual manipulations such as algebraic concepts
• Strong sense of humor, but inability to judge appropriate times to display it
• Penetrating insights, but inability to determine cause and effect related to own actions
• Ability to concentrate for unusually long periods of time when the topic is of interest, but inability to control his or her actions and attention when the topic is not of interest

**Identification Concerns**

Some educators and lawmakers seem uneasy about accepting the seeming contradictions inherent in gifted/LD. For many, the terms gifted and learning disabled appear at opposite ends of the learning continuum (Baum 1990). Thus, practices in some states dictate that a student may be identified and assisted with either a learning disability or giftedness, but not both (Baum, 1990; Brody & Mills, 1997). In other circumstances, school districts simply do not have the procedures in place for identifying and serving gifted/LD students (Weinfeld, Barnes-Robinson, Jeweler, & Shevitz, 2002). Therefore, students who are both gifted and LD do not always receive adequate services (Bees, 1998; Brody & Mills, 1997).

This situation is not surprising, as experts often disagree about the exact nature of “giftedness” and “learning disabilities.” Some believe that giftedness translates as outstanding achievement across all areas of the curriculum. It is important for educators to resist the myth that gifted students are all “globally gifted;” that is, gifted or able in all academic areas. It is much more likely that gifted students are highly able in one or two areas. “Thus, a student who is an expert on bugs at age eight may automatically be excluded from consideration for a program for gifted students because she cannot read, though she can name and classify a hundred species of insects” (Baum, 1990, p. 2). On the other hand, below grade-level achievement is often viewed as a prerequisite for a diagnosis of a learning disability, so an extremely bright student struggling to stay on grade level may not get the services she needs (Baum, 1990).

As noted by Brody and Mills (1997), “Trying to find one defining pattern or set of scores to identify all gifted/learning disabled students is probably futile” (p. 284). Criteria for the diagnosis of gifted/learning disabled must be adapted and refined as experience with programs increases (Bees, 1998). Due to the masking of one exceptionality by the other, teacher and counselor referrals and personal interviews are initial ways to begin the assessment process for students who are suspected of being gifted/LD (Silverman, 1989).
Educational Guidelines
Since Gifted/LD students are doubly at risk because the characteristics of the two categories influence one another, talents must be nurtured and learning strategies must be taught (Robinson, 1999). When only weaknesses are addressed, students become frustrated, disruptive, and alienated from their school experience.

The following guidelines are critical when creating effective educational programs for gifted/LD students (Baum, 1990; Robinson, 1999):

- Give focused attention to developing the gift or talent in its own right. Enrichment does not equate to remediation.
- Provide a supportive environment that values and appreciates individual abilities.
- Teach students strategies to compensate for their learning problems as well as provide direct instruction in basic skills.

It is important to recognize that not all strategies will work with all twice-exceptional students. It is best to diagnosis the disability and tailor instruction and accommodations to the educational plan. Educators should be flexible and ready to try different strategies with different students. Just as students in a general education class have different cognitive and affective needs, so do gifted or twice-exceptional students.

Tips for Teachers
Weinbrenner (2003) offers many suggestions for teachers who work with students who are gifted/LD. Inherent in all of them is the importance of teaching students the way in which they learn best. When that happens, students realize that success is possible when they use particular methods that make the most of their strengths and compensate for their weaknesses. According to Weinbrenner, the most pressing issue for educators is to ensure that the giftedness does not go unnoticed and unclaimed while attending to students’ learning deficits.

Teachers can help students by:
- understanding the way they learn in order to foster success and acknowledging the need for teaching the same concepts in many different ways
- appreciating individual differences in order for students to appreciate the presence of differentiation opportunities
- focusing on concepts first and details second
- connecting past learning to new content
- learning organizational techniques through modeling and practicing
- helping student to set realistic goals and celebrating meeting goals.

Teachers can provide students with:
- visual, tactile-kinesthetic, and movement activities to stimulate senses for learning success
- hard copies of lecture notes or peer assisted note-taking
- lesson plans and assignments provided in advance
- extended time for test completion and assignments
- large print or dictated test/reports
- alternative assignments/tests (e.g., oral or written report instead of a test)
• alternative methods of self-expression (e.g., art, drama, music or dance) to extend learning and cognitive processing
• assignments or instructional methods that foster critical thinking, problem solving, and divergent thinking skills
• opportunities to embed instructional technology such as web searches, Webquests, Wikis, Podcasts, and multimedia to enhance lessons

**Teachers can provide supports such as:**
• decreased volume of assignments/tests
• tutoring or individual re-teaching
• paired assignments (e.g., assign a student whose strength is writing with a student whose strength is reading)
• assistive technology aids such as computer-assisted boards; talking computers; computers adapted for visual impairments; hearing devices; software programs to help with spelling, grammar and vocabulary (e.g. Kidspiration®, Write Aloud; and Read, Write and Gold)
• paraprofessional assistance or peer helpers
• calculators
• math tables, manipulatives (e.g., Hands-On Equations®), and software such as InspireData®
• digital probes in science
• graph paper to align numbers in math
• talking maps

According to Baum (1990), specific teaching strategies that provide the structure necessary for student success fall into the three categories outlined below. Suggestions for teachers appear under each category.

1. **Academic Strategies**
   - Use active inquiry involving discussion and experimentation
   - Provide open-ended challenges requiring divergent thinking, especially in small-group settings
   - Consider students’ preferred learning styles, interest, and strengths
   - Based on student interests, incorporate opportunities for students to investigate real-world problems for real audiences
   - Provide sufficient time for students to work without interruption
   - Use POW or a similar strategy for writing -- students Pick their own ideas, Organize their notes, and Write and then say more by writing again (Margolis & McCabe, 2006)
   - Use acceleration and curriculum compacting in strength areas
   - Teach whole concepts and then parts rather than part-to-whole
   - Teach creative thinking and dramatics (Starko, 2004)
   - Provide students with the rationale for tasks and lessons
   - Provide students with detailed rubrics, checklists, or performance lists to reduce frustration

2. **Social/Emotional Support Strategies**
   - Tap into students’ strengths by using bibliotherapy, cinematherapy, biographies and autobiographies, inspirational quotes, and self-help and how-to books (Halsted, 2002)
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3. Behavioral Strategies
   - Encourage students to assume responsibility by creating opportunities and letting them carry out responsibilities without interference or enabling
   - Enhance motivation by planning for less desirable tasks to precede a preferred one (e.g., editing a paper before completing a creative group project)
   - Assess present levels of student performance to provide appropriately challenging assignments (Margolis & McCabe, 2006)
   - Limit choices; too many choices may interfere with students’ decision making
   - Use a variety of environmental settings as cues for desired behavior. When changing activities and expectations, change the setting.
   - Provide private space for independent work

4. Strategies to Compensate for Weaknesses
   - Pair students whose strengths are complementary
   - Use picture books, tapes, and oral instruction for non-readers; word processors or dictation for non-writers
   - Reduce reading by copying and enlarging paragraphs or pages
   - Provide shortened class assignments to support short-term goal-setting strategies
   - Encourage students to choose tasks that rely on students’ strengths rather than amplifying weaknesses (e.g., oral report with costume or props in lieu of a written report for students who do not have strong written language skills)
   - Encourage knowledge and understanding of individual strengths and weaknesses
   - Be sensitive to students’ frustrations while supplying strategies for dropping out of activities with integrity (e.g., provide an escape route such as a quiet corner or allowing students hall passes to cope with feelings of frustration by taking a brief walk)
   - Understand students’ need for emotional support to create a connectedness that is very powerful in motivating students to make decisions to work hard (Coleman, 2005)
   - Teach learning strategies that provide students with a logical sequence of steps that make attacking difficult tasks more manageable (Margolis & McCabe, 2006) (e.g., the Strategic Instruction Model, University of Kansas, Center for Research on Learning, 2008, which employs specific strategies for reading, remembering, writing, performing math operations, and demonstrating competence. These explicit approaches are useful to enhance success and confidence in students who are identified as gifted/LD.)
   - Teach self-regulation strategies such as chunking and setting short- and long-term goals (Zimmerman, Bonner, & Kovach, 1996)
   - Allow students to use technology such as calculators and speech-recognition software
Learning Environment
Baum (1990) encourages teachers to create nurturing environments in which these exceptional students feel connected within the school environment. This may be accomplished by encouraging self-knowledge about interests and learning styles, and by allowing compensation and accommodation to take any form that technology can provide (Baum, 1990; Robinson 1999). Selecting aspects of curriculum for more in-depth study helps to garner and sustain interest (Robinson, 1999). Guiding students toward information gathering and dissemination techniques such as videos, interviews, computers, speeches, drama, and art is a great alternative to purely writing.

The use of advance organizers such as graphic organizers, folders, and notebooks, as well as direct instruction in organizational techniques also proves invaluable to these students (Baum, 1990; Robinson, 1999). Graphic organizers help students to conceptualize complex knowledge and to connect new information and ideas to prior knowledge. Organizers also allow students to explicitly show relationships across ideas and are central to helping students build conceptual understanding (Coleman, 2005).

Bireley and Languis (1992) recommend team planning and dually trained personnel with knowledge of both giftedness and LD to create a challenging context that keeps students interested and excited about their school experience. They also strongly recommend attending to issues of self-concept and self-esteem. “Some of the problems of this condition can be overcome, some can be contained by compensatory skills and some must be dealt with as lifelong weaknesses” (Bireley & Languis, 1992, p. 13).

Learning Environment Strategies
• Create a safe environment by clearly communicating expectations and providing opportunities for success that emphasize students’ strengths and gifts
• Differentiate instruction and encourage students to become autonomous learners through contracts and independent learning (see also Differentiating for Success in Inclusive Classrooms [Holm, 2001] Considerations Packet from T/TAC W&M)
• Provide role models such as mentors, older gifted students, adults from the student’s field of interest
• Pace learning and modify instruction according to ability
• Provide consistent, frequent, and specific feedback to ensure success and reduce/prevent frustration
• Use multiple modalities and chunk instructions into smaller, more manageable parts
• Never underestimate abilities; use a challenging curriculum to differentiate remedial instruction
• When possible, offer authentic choices about the ways in which students can learn and show mastery in the class (Siegle & McCoach, 2005)
• Use dynamic assessments to capitalize on the use of metacognitive strategies to help students monitor their own understandings (Coleman, 2005)
• Use a less-is-more approach to allow students to use important key concepts with strategies such as reflective questioning to deepen the learning experience (Coleman, 2005)

Model Programs
Programs have been created and established specifically for students who are identified as gifted/LD. These programs take into account school climate, instructional strategies, organizational skills, and writing, and focus on increasing student success. Two of these programs are described below.
**The GOLD Program** (Bees, 1998)
This program operates within a secondary school in Vancouver, Canada, and is conducted similarly to a resource room with enrichment for adolescent students.

- Students attend GOLD classes three times a week for a particular subject area within an eight-class timetable.
- Success of the program is based on providing a meaningful school connection for gifted/LD students.
- Most gifted/LD students are referred for psychological manifestations of distress rather than skill deficiencies.
- The GOLD program specifically tries to overcome this distress with humor, encouragement, reward, and celebration.
- Trust and a nonjudgmental atmosphere are emphasized.
- Problems are discussed openly, and everyone is encouraged to be open and honest.
- Students are integrated for most subjects, so they are taught to self-advocate and gain support from those around them.
- Students appear to like the combination of general education/GOLD classes and consider it the strength of the program.
- The GOLD classroom is set up with computers, tape recorders, tables, study carrels, a microwave, a telephone, and subject materials.
- The class is open, and students are welcome at most times during the day.
- The teachers of the program are highly involved with students on a personal level, and discussion is a mainstay of the class.
- Students work individually or in small groups; structure is based on each student’s individualized education plan, which contains strategies for all work.
- A common deficit for gifted/LD students revolves around written language, so many students use the technological resources available.
- Accommodations such as the use of computers, spellcheckers, word processing, and tape recorders are particularly useful with this age group.
- The heart of the curriculum includes self-awareness, communication, critical thinking, advocacy, word processing, anger management, learning strategies, and discussions on ethics and ideas.
- Bees (1998) notes that as students are identified and given services at a younger age, they are more capable and less anxious as well as feel more connected to their school environment.

**The Wings Mentoring Program**
The purpose of the Wings Mentoring program is to provide additional support for gifted students with LD who are not succeeding in the classroom (Shevitz, Weinfeld, Jeweler, & Barnes-Robinson, 2003). The program is an eight-week course developed to allow these students to shine, develop relationships, and boost their sense of pride. The program was developed to focus on students’ strengths and, in turn, provide successes to enhance their self-esteem and self-confidence. The session ends with a ShowOff night, a special evening when students display their projects, share their experiences, and celebrate their accomplishments.

The Wings program is based on four principles:
• **Focus on strengths**: In the mentor program, attention is focused on students’ interests and their potential for success.

• **Build in success**: Students’ success is maximized by working one-on-one with a mentor, who gives them opportunities to be successful and gain an awareness of their abilities.

• **Enhance self-esteem**: Through successes, students gain self-confidence, which contributes to self-esteem. Students become excited about school and start to believe in themselves.

• **Plant a seed**: The intent of the program is to plant a seed for future success and serve as a catalyst for positive change.

**Protective Factors**
The programs outlined above incorporate features that lead to student success. Protective factors are aspects or strategies that serve to buffer an individual’s response to stressful life events and lead to resilience. Protective factors should be integrated into any program for students who are gifted/LD. Major studies in resiliency for this population have reported protective factors specific to this group (Dole, 2000). The following five factors appear the most significant:

- Early identification
- Effective programming
- Counseling
- Extracurricular activities and responsibilities
- Parental and external support

**Tips for Parents**
All parents must be active participants in and advocates for their children’s education. In the case of twice-exceptional students, parents can provide support and encouragement to increase success and self-esteem (Fetzer, 2000). By forming a partnership with the school and gaining knowledge about what it means to be gifted/LD, parents gain understanding and learn how to support their children. Parents can play an active role by supporting children’s interests and hobbies outside of school. Such activities play a key role in effective intervention designed to nurture abilities and develop self-esteem and self-efficacy in students who are gifted/LD (VanTassel-Baska & Baska, 2004). Activities may include:

- Youth-based organizations and activities like sports, drama, band, and orchestra to give young people opportunities to be a part of a cooperative endeavor with their peers.
- Connections to interests like photography, computers, and art to bolster these students when their academic lives seem to be falling apart.
- Museums, concerts, and summer or weekend classes to encourage their interests.
- Camps, workshops, and community groups to nurture their gifts as additional means to support the success of twice exceptional children.

**Conclusion**
As our awareness of the characteristics of students who are gifted /LD increases, we can better meet their needs. Due to the interaction of high cognitive functioning and disabling learning problems, these students are reported to be some of the most underserved and disruptive students (Baum & Owen, 1988, 2004; Whitmore & Maker 1985). Teachers need to be open to and use alternative instruction and assessment methods to enable these students to succeed in the classroom and in school in general.
Parents and teachers need to form partnerships for these students to ensure that their cognitive, psychological, and academic needs are met and to support these students in learning to advocate for themselves.

**References**


Robinson, S. (1999). Meeting the needs of students who are gifted and have learning

**Websites**

This *Considerations Packet* was prepared by Marcy J. Douglass, May 2007, and revised by Carol Tieso, April 2008.