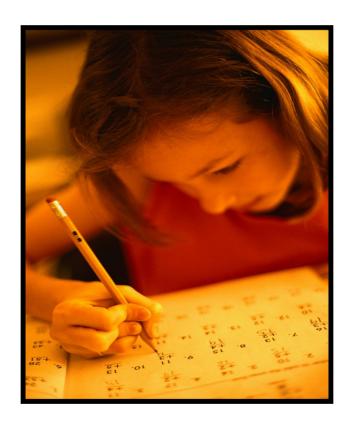
Twice-Exceptional Students Gifted Students with Disabilities

Level 1: An Introductory Resource Book Second Edition



Colorado Department of Education 201 East Colfax Avenue Denver, Colorado 80203-1799

Gifted students' learning and growth ensured by needed provisions and advocacy





Colorado Department of Education

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The Colorado Department of Education's *Twice-Exceptional Students Gifted Students with Disabilities, Level 1: An Introductory Resource Book* is the result of a cooperative effort between Special and Gifted educators.

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Introduction

Gifted students with disabilities are at-risk because their educational and social/emotional needs often go undetected. The resulting inconsistent academic performance can lead educators to believe twice-exceptional students are not putting forth adequate effort. Hidden disabilities may prevent students with advanced cognitive abilities from achieving their potential. The frustrations related to unidentified strengths and disabilities can result in behavioral and social/emotional issues. For some twice-exceptional students, behavior plans become the focus of their interventions. The behaviors are managed, but the underlying disabilities are never addressed. School can become a very frustrating experience for struggling twice-exceptional students, their teachers, and parents.

A collaborative effort between classroom teachers, special educators, gifted educators, and parents is needed to identify twice-exceptional students and implement strategies to meet their diverse needs. It is essential that the disabilities are identified early so appropriate interventions can be provided at optimum times. Unfortunately, the struggles of many twice-exceptional students go unnoticed for many years, resulting in learning gaps and undeveloped potentials.

Twice-exceptional students will continue to be at-risk until educators can learn about and understand the educational and social/emotional needs of twice-exceptional students. Educators can implement strategies to develop their potential, to identify learning gaps and provide explicit instruction, to support the development of compensatory strategies, to foster their social/emotional development, and to enhance their capacity to cope with mixed abilities.

It is the intent of this resource book to provide the framework to identify twice-exceptional students and select appropriate strategies so gifted students with disabilities can achieve their full potential.

Identifying Twice-Exceptional Students

Mission

Recognize and nurture outstanding potential so that gifted students with disabilities may become all that they are capable of becoming.

Colorado Definition

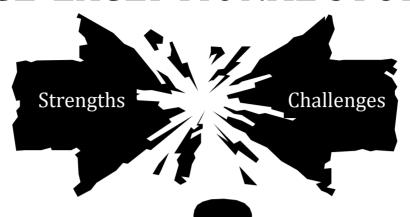
Twice-exceptional students are:

1. Students who are identified as gifted and talented in one or more areas of exceptionality (specific academics, general intellectual ability, creativity, leadership, visual, or performing arts);

and also identified with:

- 2. A disability defined by Federal/State eligibility criteria: specific learning disability, significant identifiable emotional disability, physical disabilities, sensory disabilities, autism, or ADHD.
 - ⇒ The disability qualifies the student for an Individual Education Plan (IEP) or a 504 Plan.

TWICE-EXCEPTIONAL STUDENTS



Strengths:

superior vocabulary

· highly creative

resourceful

- curious
- imaginative
- questioning
- problem-solving ability
- sophisticated sense of humor
- wide range of interests
- advanced ideas and opinions
- special talent or consuming interest

Challenges:

- easily frustrated
- stubborn
- manipulative
- opinionated
- argumentative
- written expression
- highly sensitive to criticism
- inconsistent academic performance
- lack of organization and study skills
- difficulty with social interactions

Characteristics of Twice-Exceptional Children

Elizabeth Nielsen, 1994 University of New Mexico

The following list should be viewed as characteristics which are *typical* of many children who are gifted and who also have a disability, rather than characteristics which all such children possess. These twiceexceptional children do not form a simple, homogeneous group; they are a highly diverse group of learners.

Indicators of Cognitive/Affective Strengths

- Have a wide range of interests that are not related to school topics or learning.
- Have a specific talent or consuming interest area 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 capable of setting up situations to their own advantage often as a coping method.
- Are extremely creative in their approach to tasks and as a technique to compensate for their disability.
- Have an unusual imagination.
- Are humorous often in "bizarre" ways.
- Have advanced ideas and opinions which they are uninhibited in expressing.
- Have a superior vocabulary.
- Have very high energy levels.

Indicators of Cognitive/Affective Problems

- Have discrepant verbal and performance abilities.
- Have deficient or extremely uneven academic skills which cause them to lack academic initiative, appear academically unmotivated, avoid school tasks, and frequently fail to complete assignments.
- Are extremely frustrated by school.
- Have auditory and/or visual processing problems which may cause them to respond slowly, to work slowly, and to appear to think slowly.
- Have problems with long-term and/or short-term memory.
- Have motorical difficulties exhibited by clumsiness, poor handwriting, or problems completing paper-and-pencil tasks.
- Lack organizational skills and study skills; often appearing to be extremely "messy."
- Are unable to think in a linear fashion; have difficulty following directions.
- Are easily frustrated; give up quickly on tasks; are afraid to risk being wrong or making mistakes.
- Have difficulty explaining or expressing ideas, "getting-to-the-point," and/or expressing feelings.
- Blame others for their problems while believing that their successes are only due to "luck."
- Are distractible; unable to maintain attention for long periods of time.
- Are unable to control impulses.
- Have poor social skills; demonstrate antisocial behaviors.
- Are highly sensitive to criticism.

Indicators of Low Self-Esteem

One of the most common characteristics of these children is low self-esteem. They frequently "disguise" this low self-esteem through the use of any or all of the following behaviors:

- Anger
- Self-criticism
- Crying
- Disruptive behaviors
- Clowning behaviors
- Denial of problems

- Withdrawal
- Daydreaming and fantasy
- Apathetic behaviors

Distinguishing Characteristics of Gifted Students With Factors

Characteristics of Characteristics of Gifted Students With Disabilities	ities and access Often struggles to learn basic skills due to cognitive processing difficulties; needs to learn compensatory strategies in order to acquire basic skills and information	High verbal ability but extreme difficulty in written language area; may use language in inappropriate ways and at inappropriate times	Lack of access to reading materials may delay acquisition of reading skills processing deficits	onal skills which Strong observation skills but "survive on the often has deficits in memory skills	orming and Excels in solving "real-world" rid" problems; outstanding critical thinking and decision-making skills; often independently develops compensatory skills	as of interest Frequently has attention deficit problems but may concentrate for long periods in
Characte Low Socio Gifted S	Lack of opportunities and access to school-readiness materials may delay acquisition of basic skills	Lack of opportunities may delay the development of verbal skills	Lack of access to reading materials may delay acqu reading skills	Strong observational skills which are often used to "survive on the streets"	Excels in brainstorming and solving "real-world" problems; strong critical thinking ability; rapid decision-making skills	Persistent in areas of interest usually unrelated to school
Culturally/Linguistically Diverse Gifted Students	May require more repetition or hands-on experiences at an introductory level	May have high verbal ability in native language; may rapidly acquire English language skills if they possess academic skills in their home language	May demonstrate strong storytelling ability and ability to read environmental print in home language	May display high levels of visual memory or auditory memory skills	Strong critical thinking in primary language; often solves problems in creative ways; particularly interested in solving "real-world" problems	Long attention span — persistent, intense concentration
Traditional Characteristics	Ability to learn basic skills quickly and easily and retain information with less repetition	High verbal ability	Early reading ability	Keen powers of observation	Strong critical thinking, problemsolving and decision-making skills	Long attention span — persistent, intense concentration
	Basic Skills	Verbal Skills	Reading Apility	Observation Skills	məldor gnivlo2	əənətsi

Albuquerque Public Schools Gifted Task Force; developed by E. Nielsen (1999).

Distinguishing Characteristics of Gifted Students With Factors

Characteristics of Gifted Students With Disabilities	Strong questioning attitude; may appear disrespectful when questioning information, facts, etc. presented by teacher	Unusual imagination; frequently generates original and at times rather "bizarre" ideas	Often unwilling to take risks with regard to academics; takes risks in non-school areas without consideration of consequences	Humor may be used to divert attention from school failure; may use humor to make fun of peers or to avoid trouble	Sometimes appear immature since they may use anger, crying, withdrawal, etc. to express feelings and to deal with difficulties	Requires frequent teacher support and feedback in deficit areas; highly independent in other areas; often appears to be extremely stubborn and inflexible
	Strong cappear question	Unusua generat rather "	Often un regard tin non-s	Humor attentio use hun or to av	Sometimes since they suthdrawa feelings an difficulties	Require support areas; h other ar
Characteristics of Low Socio-Economic Gifted Students	Questioning attitude which may at times be demonstrated in a confronting or challenging way	Strong creative abilities	Takes risks often without consideration of consequences	May use humor to become "class clown," to deal with stressful situations, and to avoid trouble	Often mature earlier than age peers since they must accept responsibilities in the home which are normally reserved for older children or even adults; inexperience may make them appear socially immature	Circumstances often have forced the student to become extremely independent and self-sufficient
Characteristics of Culturally/Linguistically Diverse Gifted Students	Some culturally diverse children are raised not to question authority	Often displays richness of imagery in ideas, art, music, primary language, etc.; can improvise with commonplace objects	Degree of risk taking may depend upon the familiarity of the situation based on different cultural experiences	Humor may be displayed through unique use of language and responses	Accepts responsibilities in the home normally reserved for older children	May be culturally socialized to work in groups rather than independently
Traditional Characteristics	Questioning attitude	Creative in the generation of thoughts, ideas, actions; innovative	Takes risks	Unusual, often highly developed, sense of humor	May mature at different rates than age peers	Sense of independence
	Curiosity	Creativity	Risk Taking	Humor	Maturity	əɔuəpuədəpuɪ

Albuquerque Public Schools Gifted Task Force; developed by E. Nielsen (1999).

Distinguishing Characteristics of Gifted Students With Factors

Characteristics of Gifted Students With Disabilities	Sensitive regarding disability area(s); highly critical of self and others including teachers; can express concern about the feelings of others even while engaging in anti-social behavior	May be perceived as a loner since they do not fit typical model for either a gifted or a learning disabled student; sometimes has difficulty being accepted by peers due to poor social skills	Often leaders among the more non-traditional students; demonstrate strong "street-wise" behavior; the disability may interfere with ability to exercise leadership skills	Wide range of interests but is handicapped in pursuing them due to process/learning problems	Very focused interests, i.e., a passion about a certain topic to the exclusion of others — often not related to school subjects
Ch G G	Sensitive rarea(s); hi others inc express co feelings of engaging i	May be pe they do no either a gi disabled s difficulty b	Often leaders am non-traditional s demonstrate str behavior; the dis interfere with ab leadership skills	Wide rang handicapt due to pro problems	Very focus passion al the exclus not relate
Characteristics of Low Socio-Economic Gifted Students	May be critical of self and others including teachers; can understand and express concern about the feelings of others even while engaging in anti-social behavior	Economic circumstances as well as his/her giftedness may isolate the student from more financially secure peers	May be a leader among the more non-traditional students; demonstrates strong "streetwise" behavior; often excels in brainstorming and problemsolving around social issues	Wide range of interests that are often unrelated to topics/subjects addressed in school	Very focused interests, i.e., a passion about a certain topic to the exclusion of others — usually not related to school subjects
Characteristics of Culturally/Linguistically Diverse Gifted Students	May be sensitive, particularly to racial or cultural issues	May be perceived as a loner due to racial/cultural isolation and/ or inability to speak English; entertains self easily using imagination in games and ingenious play	May be a leader in the community but not in the school setting; demonstrates "streetwise" behavior	Interests may include individual culturally related activities	Very focused interests, i.e., a passion about a certain topic to the exclusion of others
Traditional Characteristics	Sensitive	May not be accepted by other children and may feel isolated	Exhibits leadership ability	Wide range of interests	Very focused interests, i.e., a passion about a certain topic to the exclusion of others
	Emotionality I	Social Skills	Leadership	Broad Interests	Focused Interests

Albuquerque Public Schools Gifted Task Force; developed by E. Nielsen (1999). Sources: New Mexico State Dept. of Ed. (1994) Technical Assistance Document-Gifted Education; Fox, L., Brody, I., & Tobin, D. (1983). Learning Disabled Gifted Children; Torrance, E.P., Goff, K., & Neil, B. (1998). Multicultural Mentoring of the Gifted and Talented; Van Tassel-Baska, J., Patton, J., & Prillaman, D. (1991). Gifted Youth At Risk.

Identification

Twice-exceptional students are difficult to identify because they possess the characteristics of gifted students and the characteristics of students with disabilities. Gifted characteristics may mask disabilities or disabilities may mask gifted potential. Either the strengths, the disabilities, or both may not be identified. To be considered twice-exceptional, the student must be identified for gifted education and special education services or have a 504 plan. Research indicates that 2-5 percent of the gifted population will have disabilities and 2-5 percent of students with disabilities will be gifted (Dix & Schafer, 1996; Whitmore, 1980; & Maker, 1977).

Gifted Identification

When gifted students begin to struggle in school, their identification for gifted services is sometimes questioned. Just because students have disabilities does not mean they are not gifted. Many eminent people have struggled in school and later gone on to make substantial contributions to society. Not achieving commensurate with ability should raise a red flag that there is the possibility a disability may be impacting learning. Disabilities in gifted students can go unnoticed for years and valuable windows for effective interventions are missed. It is important to utilize a collaborative problem-solving approach as early as possible to prevent the development of behavioral and social/emotional issues. (For more information, see *Gifted Education Guidelines and Resources: Volume I: Identification,* <w www.cde.state.co.us>).

Identification of Disability

A collaborative problem-solving approach should be considered for students who are struggling in school and who may need academic and/or behavioral support. Use of this approach is "effective when multiple perspectives collaborate to identify student needs, implement targeted interventions, utilize data to measure student progress as a result of the interventions, as well as to monitor intervention integrity" (*Response to Intervention [RtI] A Practitioner's Guide To Implementation*, Colorado Department of Education, 2008, <www.cde.state.co.us>).

Students Who Have Inconsistent Academic Performance

Strengths and disabilities may mask each other and the student may appear to have average ability. However, inconsistent performance may indicate the presence of gifted potential and disabilities. It is important to focus on developing potential and providing strategies to help students when they struggle. Research-based strategies for twice-exceptional students can be implemented before formal identification is achieved. Continue to look for indicators of gifted behaviors or behaviors that suggest a disability.

Identification and Programming for Twice-Exceptional Students

Identification

Twice-exceptional students are difficult to identify because their strengths and weaknesses may mask each other, creating a unique learner profile atypical of a gifted student or a student with disabilities.

weaknesses mask each other

Student's strengths and



Student is identified as gifted using district procedures and an advanced learning plan is written.

+

Student behavior or performance suggests the possibility of a disability. The classroom teacher initiates a referral to school's collaborative problem-solving team.

Student is identified with a disability using district procedures and an IEP or 504 is written.

Student is identified with a disability using district procedures and an IEP or 504 is written.

+

Student behavior or performance suggests gifted traits. Special educator and classroom teacher initiate a referral to school's collaborative problem-solving team.

+

Student is identified as gifted using district procedures and an advanced learning plan is written.

Programming

In a collaborative effort between the classroom teacher, gifted educator, and special educators, appropriate strategies will be implemented to:

- nurture the student's potential.
- support development of compensatory strategies.
- identify learning gaps and provide explicit instruction.
 - foster social and emotional development.
 - enhance capacity to cope with mixed abilities.
- ⇒ The advanced learning plan and the IEP are reviewed simultaneously.
- ⇒ Identified student is noted as twice-exceptional on district database.
- ⇒ Number of twice-exceptional students in district is reported to the Colorado Department of Education in the Gifted End-of-Year Report submitted by district Gifted Education Director.

Identifying Gifted Students in Colorado is a Multidimensional Process

Mission

Gifted students' learning and growth ensured by needed provisions and advocacy.

Define the Gifted and Talented Learner

The Colorado definition for Gifted and Talented Students references the Rules for the Administration of the Exceptional Children's Educational Act (I CCR 301-8, Section 2220-R-12.01(12) et seq.).

Gifted children means those persons between the ages of five and whose abilities. talents. and accomplishment are so exceptional or developmentally advanced that they require special provisions to meet their educational programming needs. Gifted and talented children are hereafter referred to as gifted students. Children under five who are gifted may also be provided with early childhood special educational services. Gifted students include gifted students with disabilities (i.e., twice-exceptional) and students with exceptional abilities or potential from all socio-economic and ethnic, cultural populations. Gifted students are capable of high performance, exceptional production, or exceptional learning behavior by virtue of any or a combination of these areas of giftedness:

- General or specific intellectual ability
- Specific academic aptitude
- Creative or productive thinking
- Leadership abilities
- Visual arts, performing arts, musical or psychomotor abilities

Provide Equitable Access to Screening for Gifted Education Services

All children (at the district-designated assessment grades) participate in the screening process. It is more likely that exceptional abilities and evidence of potential achievement in traditionally underserved children will be recognized.

Use Multiple Sources, Tools, and Criteria for a Body of Evidence

Multiple sources and tools allow children to reveal their exceptionalities or potential. A variety of assessment tools should be used to collect information on a student whose background or talent area makes him/her unique from others.

Intellectual Ability
Achievement
Behavioral Characteristics
Demonstrated Performance

Seek to find underachieving learners who may be identified only through ability testing; likewise, seek to find underachieving learners who may not be identified through traditional testing but whose giftedness is obvious in focused and deliberate observations of performance on problem-solving tasks. Use a balanced approach to find underachieving students with both standardized test scores and behaviors/performances.

Collect data about learners who have documented learning needs in other areas, e.g., Special Education, ELA, or 504. Ensure that gifted education personnel understand the categories of disabilities and the specific Special Education designations that impact the learning process.

Body of Evidence

INTELLECTUAL ABILITY

95th percentile and above on norm-referenced standardized cognitive tests or subtests.

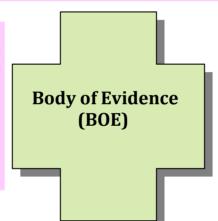
Examples: WISC,

Cognitive Abilities Test, Nonverbal Analogies Test

BEHAVIORS/CHARACTERISTICS

Observation of behaviors or motivation with outstanding or exceptional factors.

Examples: Bertie Kingore Inventory, Gifted Evaluation Scale



ACHIEVEMENT

95th percentile and above on norm-referenced or criterionreferenced standardized tests. Advanced on a standards-based test.

Examples: ITBS, Terra Nova,

CSAP

DEMONSTRATED PERFORMANCE

Distinguished level of performance.

Examples: Juried performance, Advanced portfolio

For additional information about the importance of using a Body of Evidence, please see the Colorado Department of Education publication *Gifted Education Guidelines and Resources, Volume I: Identification,* and refer to Component 3. The appendix offers examples of instruments in each of the BOE (Body of Evidence) categories.

Categories of Disability Under IDEA

IDEA lists 13 different disability categories under which 3- through 21-year-olds may be eligible for services. Federal definitions guide how states define who is eligible for a free appropriate public education under IDEA. The definitions are as follows:

1. Autism...

...means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a child's educational performance. Other characteristics often associated with autism are engaging in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. The term *autism* does not apply if the child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in #4 below.

A child who shows the characteristics of autism after age three could be diagnosed as having autism if the criteria above are satisfied.

2. Deaf-Blindness...

...means concomitant [simultaneous] hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.

3. Deafness...

...means a hearing impairment so severe that a child is impaired in processing linguistic information through hearing, with or without amplification, that adversely affects a child's educational performance.

4. Emotional Disturbance...

...means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance:

- (a) An inability to learn that cannot be explained by intellectual, sensory, or health factors.
- (b) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
- (c) Inappropriate types of behavior or feelings under normal circumstances.
- (d) A general pervasive mood of unhappiness or depression.
- (e) A tendency to develop physical symptoms or fears associated with personal or school problems.

The term includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance.

5. Hearing Impairment...

...means an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance but is not included under the definition of "deafness."

6. Mental Retardation...

...means significantly subaverage general intellectual functioning, existing concurrently [at the same time] with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a child's educational performance.

7. Multiple Disabilities...

...means concomitant [simultaneous] impairments (such as mental retardation-blindness, mental retardation-orthopedic impairment), the combination of which causes such severe educational needs that they cannot be accommodated in special education programs solely for one of the impairments. The term does not include deaf-blindness.

8. Orthopedic Impairment...

...means a severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by a congenital anomaly, impairments caused by disease (e.g., poliomyelitis, bone tuberculosis), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns that cause contractures).

9. Other Health Impairment...

...means having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that—

- (a) is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome; and
- (b) adversely affects a child's educational performance.

10. Specific Learning Disability...

...means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury,

minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities; of mental retardation; of emotional disturbance; or of environmental, cultural, or economic disadvantage.

11. Speech or Language Impairment...

...means a communication disorder such as stuttering, impaired articulation, a language impairment, or a voice impairment that adversely affects a child's educational performance.

12. Traumatic Brain Injury...

...means an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. The term applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. The term does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma.

13. Visual Impairment Including Blindness...

...means an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

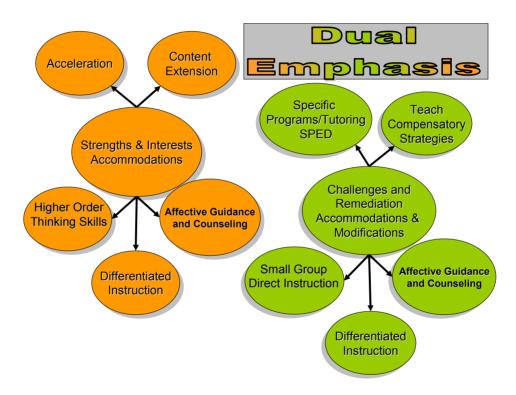


From NICHCY, National Dissemination Center for Children with Disabilities 1.800.695.0285 (Voice/TTY) nichcy@aed.org www.nichcy.org

For more information, see <www.cde.state.co.us>.

Nurture Strengths and Interests While Addressing Challenges

When developing a comprehensive educational plan for a twice-exceptional student, a dual emphasis focusing upon a student's strengths as well as challenges is crucial.



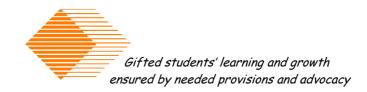
All gifted students require balanced gifted programming over time. Programming components for gifted education include acceleration, content extension, higher-order thinking skills, affective guidance and counseling, and differentiated instruction. These components are based upon national standards, research, and best practices in gifted education. Implementing these strategies will improve students' motivation, develop confidence, and support student achievement.

Acceleration

Acceleration is the appropriate movement of a student and/or curriculum by pace or place to match learning opportunities with student strengths, readiness, and needs.

- **Single-Subject Acceleration:** The delivery of curriculum by either moving the child into a higher grade level or providing higher-grade level curriculum in age-based classrooms.
- **Concurrent Enrollment:** Attending classes in more than one grade or building (e.g., a middle school student attends a class at the high school).
- **Post-Secondary Options:** High school students are allowed to spend part of their day attending classes at a local college or university and receive both high school and college credit.
- **Rocky Mountain Academic Talent Search:** Students take the SAT or ACT in middle school and can qualify for advanced-level courses at universities throughout the country.
- **Correspondence/Distance Learning:** Courses taken within or outside regular school time for personal interest or credit.
- **Advanced Placement/International Baccalaureate:** Students take AP or IB high school courses and take a test to qualify for college credit.
- **Independent Study:** Students pursue an area of interest in depth or required curriculum at a pace that meets their individual needs.

For more information on acceleration and the other programming components, see *Gifted Education Guidelines and Resources, Volume II: Programming.*



Content Extension

Content extension is the process of extending the curriculum beyond what is typical or expected in a class or grade level. Content extension includes:

- Exposure beyond the regular curriculum to new ideas, skills, and concepts not encountered before.
- Extension of the regular curriculum going more broadly and deeply into the ideas already introduced in that curriculum. Extend learning beyond level through advanced content, materials, and complexity.
- Concept development using a concept introduced within the regular curriculum and exploring its meaning and implications across the curricular areas.

Content extension requires depth, complexity, and novelty:

<u>**Depth**</u> encourages students to venture further, deeper, with greater elaboration, through quality of subject matter, rules and ethics, language, and patterns. It involves learning from:

- Concrete to abstract.
- Familiar to unfamiliar.
- Known to unknown.
- Literal to synthesized.

<u>Complexity</u> helps students make connections and identify relationships and associations between, within, and across subjects and disciplines. It focuses on:

- Varying perspectives.
- Issues, problems, and themes.
- Conceptual learning.

Novelty encourages students to create a personal understanding or connection to the subject area, thereby making content more memorable. It provides opportunities to:

- Interpret meaning and give personal insights.
- Use non-traditional study methods.
- Approach content through inquiry, experimentation, invention, and exploration.
- Synthesize information using irony, paradox, and metaphors.

It is important to realize that these components interact. For example, depth of learning at some point demands both novelty and complexity — a student cannot study extinction without recognizing the relationship between areas of biology, natural phenomena and man's influence. Personal interests may also come into play.

Higher-Order Thinking Skills

Curriculum for twice-exceptional students should challenge their thinking and problem-solving skills. The Socratic questioning method helps students formulate questions and think through problems. Twice-exceptional students often struggle with executive processes. They have a difficult time organizing, prioritizing, and generalizing information. Teachers can help by modeling and teaching metacognitive skills. Use "think aloud" to help students develop their thinking language.

Higher-Order Thinking Skills Include:

- **Analytical Thinking Skills** Various cognitive processes that deepen understanding of knowledge and skills.
- **Critical Thinking Skills** Various thinking skills that are used to analyze and evaluate in order to respond to an argument or position.
- **Executive Processes** Various cognitive skills involved in organizing, synthesizing, generalizing, or applying knowledge.
- **Creative Thinking Skills** Various cognitive skills that are involved in creative production.
- **Creative Problem Solving** Provides an excellent structure for helping twice-exceptional students learn how to creatively solve problems.



Social/Emotional Support

Twice-exceptional students need a nurturing environment that supports the development of the students' potential.

Teachers provide a nurturing environment when:

- They value individual differences and learning styles.
- The development of students' potential is encouraged.
- Students' readiness, interests, and learning profiles shape instruction.
- Excellence is defined by individual growth.
- Flexible grouping is used for instruction.
- Students are assessed in multiple ways.
- Instruction includes activities for multiple intelligences.

Social/Emotional Issues

Making friends can be difficult for twice-exceptional students. They may need help developing peer relationships and opportunities to work with peers of similar abilities and interests. Friendship groups help twice-exceptional students learn how to make and keep friends.

Twice-exceptional students can be very self-critical and this can lead to dysfunctional perfectionism. Counseling is needed to address their unique needs and should be available on an as-needed basis.

Developing an awareness of their strengths and challenges is beneficial for twice-exceptional students. Role-playing can help students learn how to become self-advocates and how to ask for help when it is needed.

Lack of organizational, time management, and study skills can have a negative impact on the emotional well-being and school performance of twice-exceptional students. They need explicit instruction to develop those skills and specialized intervention services related to challenge areas.

Learning how to set personal goals and how to develop sequential steps or a series of short-term goals to achieve long-term goals can be beneficial for twice-exceptional learners. Career and college guidance is essential for these students.

Differentiated Instructional Strategies for Twice-Exceptional Students

Strategy	Description of Strategy	Why Appropriate for 2X Students
Flexible Skills Grouping	Students are matched to skills work by virtue of readiness, not with the assumption that all need the same spelling task, computation drill, writing assignment, etc. Movement among groups is common, based on readiness on a given skill and growth in that skill.	 Exempts students from basic skills work in areas where they demonstrate a high level of performance (100% is not required). Can allow a chance for independent work at the students' own pace.
Compacting	A three-step process that (1) assesses what a student knows about material to be studied and what the student still needs to master, (2) plans for learning what is not known and excuses student from what is known, and (3) plans for freed-up time to spend in enriched or accelerated study.	 Eliminates boredom from unnecessary drill and practice. Satisfies students' desire to learn more about a topic than school often allows. Encourages independence.
Most Difficult First	Students can demonstrate mastery of a concept by completing the five most difficult problems with 85% accuracy. Students who can demonstrate mastery do not need to practice anymore.	 Honors students' mastery of a concept. Eliminates unnecessary drill and practice. Reduces homework load of students who can demonstrate mastery.
Orbital Study	Independent investigations, generally of three to six weeks. They orbit, or revolve, around some facet of the curriculum. Students select their own topics for orbital, and they work with guidance and coaching from the teacher to develop more expertise on the topic and the process of becoming an independent investigator.	 Allows students to develop expertise on a topic and work with complex ideas. Builds on student interest and enables students to use their preferred learning style. Teachers and students establish criteria for success.
Independent Projects, Group Investigations	Process through which student and teacher identify problems or topics of interest to the student. Both student and teacher plan a method of investigating the problem or topic and identifying the type of product the student will develop. The product should address the problem and demonstrate the student's ability to apply skills and knowledge to the problem or topic.	 Builds on student interest and encourages independence. Teacher provides guidance and structure to supplement student capacity to plan. Uses preset timelines to zap procrastination and logs to document the process involved. Teachers and students establish criteria for success.
Problem-Based Learning	The student is placed in the active role of solving problems as a professional would.	Utilizes varied learning strengths, allows use of a range of resources, and provides a good opportunity for balancing student choice with teacher coaching.
Agendas	A personalized list of tasks that a particular student must complete in a specified time.	Teacher moves among individual students, coaching and monitoring their understanding and progress.
Learning Centers, Interest Centers	Centers are flexible enough to address variable learning needs. Interest centers are designed to motivate student exploration of a topic. Learning centers are a collection of activities designed to teach, reinforce, or extend a skill/concept.	 Materials and activities address a wide range of reading levels, learning profiles, and student interests. Activities vary from simple to complex, concrete to abstract, structured to open-ended.
Choice Boards, Tic-Tac-Toe RAFT	Students make a work selection from a certain row or column. Teachers can target work toward student needs while giving students choice.	Well-suited to dealing with readiness, interests, and learning style preferences among students.
Portfolios	A collection of student work that can be a powerful way of reflecting on student growth over time.	Portfolios are motivating because of emphasis on student choice and focus on readiness, interests, and learning profile.
Assessment	Assessment is ongoing and diagnostic. It provides the teacher with day-to-day data on students' readiness, interests, and their learning profiles. Assessment has more to do with helping students grow than with cataloging their mistakes.	 Assessment is used to formally record student growth. Varied means of assessment are used so that all students can fully display their skill and understanding.

Differentiated Curriculum Meets the Needs of Twice-Exceptional Learners

	D.: 11 Ch	A J M
Curriculum Component	Build on Strengths	Adaptations for ZX Learner Needs
Content: What students should know, understand, and be able to do as a result of the study.	 Focus on broad-based issues, themes, or problems. Pretest to find out what a student knows and eliminate unnecessary drill and practice. Student readiness, interest, and learning profile shape instruction. Guide students in making interest-based learning choices. Explore the topic in greater depth; issues and problems should be complex and multi-faceted. Combine ideas or skills being taught with those previously learned. 	 Key concepts, ideas, and skills the teacher wants students to learn remain constant. The way students access this information is varied in response to students' readiness, interests, and learning profiles. Use multiple texts and supplementary print resource materials to accommodate students' reading level. Use varied computer programs, audio/video recording, highlighted print materials, and digests of key ideas. Provide support mechanisms such as note-taking organizers to help students organize information. Time allocation varies according to student needs.
Process: Activities designed to help students make sense of the content.	 Teacher facilitates students' skills at becoming more self-reliant learners. Encourage students to develop independent learning skills. Respectful (engaging, high-level) tasks for all learners. Focus on key concepts, principles/generalizations, and skills versus coverage. Tasks should be based on readiness, interests, and learning profiles of students. Encourage creativity and skills of fluency, flexibility, originality, and elaboration. 	 Encourage students to make sense of an idea in a preferred way of learning (multiple-intelligence assignments). Match the complexity of the task with the students' levels of understanding. Give choices about facets of topic to specialize and help link a personal interest to sense-making goal. Vary the amount of teacher/peer support or scaffolding. Provide graphic organizers to help students synthesize information. Teach investigation and research skills. Promote cognition and metacognition.
Product: The vehicles through which students demonstrate and extend what they have learned.	 Product assignments should cause students to rethink, apply, and expand on key concepts and principles. Multi-option assignments are used allowing students to use their strengths to demonstrate their knowledge. Use products as a way to help students connect what they are learning to the real world. Set clear standards of high expectations. Encourage self-evaluation based on agreed-upon criteria. Use formative (in-process) and summative (end-of-process) evaluation by peers, self, and teachers to promote growth and success. Excellence is defined by student growth: continually model and talk about what constitutes personal excellence. 	 Support the use of varied modes of expression, materials, and technologies. Balance clear directions that support success with freedom of choice that supports individuality of interest and learning profile. Provide templates or organizers to guide students' work. Help students break down projects into manageable steps and develop a timeline. Stress planning, check-in dates, and logs help students use all the time allocated. Help build passion for the ideas being pursued. Product assignments should necessitate and support creativity. Help students develop skills needed to create authentic products.

Adapted from The Differentiated Classroom: Responding to the Needs of All Learners by Carol Ann Tomlinson.

A Continuum of Services

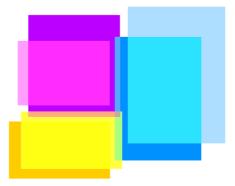
The unique characteristics of individual students should determine the type and level of support services the student receives. Some twice-exceptional students will require more intensive services than others. Because gifted and twice-exceptional students differ in a variety of ways, their needs require appropriate placement along several continuums:

<u>A continuum of services</u> is the variety of delivery and programming options available to gifted and talented students for meeting educational and affective needs.

A continuum of delivery of services refers to "where" twice-exceptional students receive services: general classroom, resource room, classroom cluster groups, interest groups, magnet classrooms, special schools for gifted students, vertical team groups, learning clusters for special interests or topics, mentorships, or special education.

The continuum of learning refers to the content standards and benchmarks, K-12, that allow for continuous learning and/or acceleration based upon progress monitoring and student achievement in the content benchmarks.

A continuum of programming options refers to the curricular and affective opportunities provided through implementation of programming components (structure, content options, differentiated instruction, and affective guidance).



Seven Steps to Strategic Planning for Twice-Exceptional Students

1. Identify Stakeholders

The first step is to identify the stakeholders — those people who will be impacted by the resulting instructional plan or who will play a role in implementing the plan. Stakeholder groups for twice-exceptional education should include representatives from gifted education, special education (special education teachers, school psychologists, social workers, occupational therapists, speech/language pathologists), classroom teachers, administrators, counselors, students, and parents.

2. Organize a Problem-Solving Team

The problem-solving team must include representatives from each stakeholder group. Identify a facilitator who will guide the process and ensure a supportive environment. This group will collaborate to develop an instructional plan for the student, monitor its success and measure student growth.

3. Determine Strength/Interests

Identify the student's strengths and interests and determine specific data points to inform the decision-making process. In what areas does he/she excel? What data tells you so? What comes easily for him/her? What data tells you so? What are the passions and interests of the student? What does he/she enjoy doing during free time? How do you know?

4. Determine Challenges/Concerns

Identify the student's challenges and concerns and determine specific data points to inform the decision-making process. What content areas come as a challenge for the student? What data tells you so? What are behavioral concerns?

5. Select One Strength and One Challenge for Focus

Choose one strength and one challenge upon which the instructional plan will focus. Decide if the problem-solving team has other questions and whether additional data needs to be gathered.

6. Develop an Action Plan

Having a clear understanding of what you want to accomplish unifies the commitment of the team. Develop an action plan that has specific measurable outcomes by: determining appropriate interventions, the length of the intervention, and establishing a review date when the team will meet again. The action plan should include: goals, interventions to achieve goals, interventionist (person who will be responsible for delivering intervention), frequency and duration, method of progress monitoring, materials needed, and necessary accommodations and/or modifications.

7. Implement Instructional Plan

Implement the selected interventions with the student being careful to record the student's response and success or lack of success. Facilitator of the problem-solving team should follow up with responsible individuals to ensure the plan is being implemented as designed.

Problem-Solving

- ▶ Define Problem
- Directly Measure Behavior/Skill

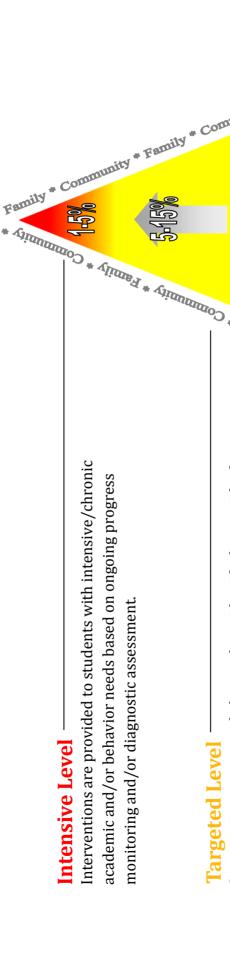
► Evaluate Response to Intervention (Rtl)



- ▶ Analyze the Problem
- ► Validate Problem
- ► Identify Variables that Contribute to Problem

- ▶ Develop Plan
- ► Implement Plan as Intended
- ► Progress Monitor
- ► Modify as Necessary

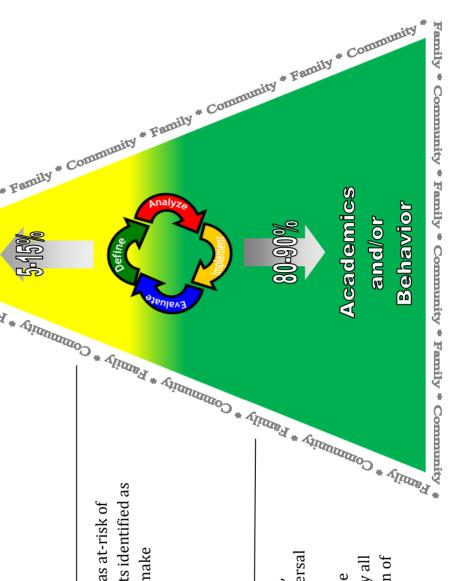
Colorado Multi-Tiered Model of Instruction & Intervention



Targeted Level Interventions are provided to students identified as at-risk of academic and/or social challenges and/or students identified as underachieving who require specific supports to make sufficient progress in general education.

Universal Level

ALL students receive research-based, high quality, general education that incorporates ongoing universal screening, progress monitoring, and prescriptive assessment to design instruction. Expectations are taught, reinforced, and monitored in all settings by all adults. Discipline and other data inform the design of interventions that are preventative and proactive.



Educational Planning for a Continuum of Abilities

Strength-/Interest-Based Accommodations

These are instructional strategies that provide a stimulating educational environment emphasizing high-level abstract thinking, creativity, and a problem-solving approach. They build on intrinsic motivation and promote active inquiry, experimentation, and discussion. Emphasis is placed on students' readiness, interests, and learning profiles. Teachers shape instruction with multi-option assignments that enable students to use their strengths to demonstrate their knowledge.

Examples: Pre-testing and compacting the curriculum to eliminate unnecessary drill; content extensions related to some facet of the curriculum that allow students to investigate a topic in greater depth and become the class expert.

Accommodations to Access Learning

Accommodations are changes in <u>how</u> a student accesses information and demonstrates learning. Accommodations are used in classroom instruction and assessment. They do not fundamentally alter or lower the standards or expectations of the content of the curriculum. Rather, they change how the content is presented and/or how a student demonstrates mastery.

Examples: Braille and wearing glasses.

Explicit Instruction: Compensatory Strategies

These are skills explicitly taught to students that, when implemented by the students, will allow them to complete tasks independently. The goal is to teach students compensatory learning strategies so they will learn to initiate the strategies independently in order to be successful in the learning environment.

Examples: Use of spell-checker; re-read aloud when editing written work; color-coding for organization.

Explicit Instruction: Intervention/Remediation

Utilize recommended assessments to identify learning gaps and then provide explicit systematic instruction/remediation in the specific deficit area(s).

Examples: Identifying phonological core deficits and providing explicit instruction in segmenting and blending speech sounds.

Strategic Planning for Student Success

The problem-solving team begins the process of planning by identifying the student's strengths and interests. Success in the strength areas promotes the development of a strong self-concept and self-efficacy. Instruction that builds on students' interests can motivate them to persevere when learning challenges cause them to struggle in school.

Once strengths and interests are identified, the problem-solving team considers the student's challenges and concerns by examining existing data and behaviors. When needed, additional data may be gathered. Twice-exceptional students need explicit instruction in their challenge areas. Teaching students compensatory strategies helps them learn strategies they can use independently to be successful.

Use the template on the next page to:

First, identify the student's strengths and challenge areas.

Second, select accommodations to ensure learning and growth in the student's strength/interest areas.

Third, select accommodations that will help the student access learning, and identify areas where explicit instruction will be provided to teach compensatory strategies or to provide intervention or remediation.



Educational Planning for a Continuum of Abilities

S - Student Strengths	C - Student Challenges	Strengths	Challenges/Concerns
Cognitive Processing/General Visual Processing — Auditory Processing — Sequential/Rational Processing Sequential Processing Speed — Attention — Memory — Executive Functioning — Organization — Other	ocessing		
Specific Academic Reading Reading Fluency Writing Writing Fluency Math Math Fluency	Science Social Studies Other		
Creativity Creative Thinking Creative Productivity Creative Problem-Solvin Risk-Taking Other	ng		
Visual, Spatial, Performing Visual Spatial Musical/Rhythmic Bodily/Kinesthetic Other	g Arts		
Physical/Psychomotor Sensory Integration Hearing Vision ADD	ADHD Bodily/Kinesthetic Athletics Other		
Interpersonal/Leadership Communicating Understanding Others Peer Relations Self-Advocacy Other			
Intrapersonal/Social/Emo Understanding Self Introspection/Reflection Perfectionism Coping Resiliency Behavioral Issues Other			
Interests/Passions			

Educational Planning for a Continuum of Abilities

Strength-/Interest-Based Accommodations	Accommodations to Access Learning	Explicit Instruction: Compensatory Strategies	Explicit Instruction: Intervention/Remediation
- recommodations	necess Bearing	dompensatory berategies	merveneon, nemediation

Educational Planning for a Continuum of Abilities: Example

S - Student Strengths	C - Student Challenges	Strengths	Challenges/Concerns
Cognitive Processing/Gen C_ Visual ProcessingC_ Auditory ProcessingC_ Sequential/Rational Pr Conceptual Holistic ProC_ Processing Speed Attention Memory Executive Functioning Organization Other	ocessing		
Specific Academic _C Reading _C Reading Fluency _S Writing _C Writing Fluency _S Math _C Math Fluency	Science Social Studies Other		
Creativity S. Creative Thinking Creative Productivity Creative Problem-Solvin C. Risk-Taking Other	ng		
Visual, Spatial, Performing Visual Spatial _S Musical/Rhythmic Bodily/Kinesthetic Other	g Arts		
Physical/Psychomotor Sensory Integration Hearing Vision ADD	ADHD Bodily/Kinesthetic Athletics Other		
Interpersonal/Leadership Communicating Understanding Others Peer Relations Self-Advocacy Other			
Intrapersonal/Social/EmoUnderstanding Self Introspection/Reflectio _C Perfectionism Coping Resiliency Behavioral Issues Other			
Interests/Passions			

Educational Planning for a Continuum of Abilities: Example

Strength-/Interest-Based Accommodations	Accommodations to Access Learning	Explicit Instruction: Compensatory Strategies	Explicit Instruction: Intervention/Remediation
Use "most difficult first" strategy and pre-testing to allow student to demonstrate mastery of concepts and reduce work load	 Give student a conceptional framework or overview of new material Extended time Preferential seating Nonverbal cues Copies of overheads 	 Create self-talk to accompany visual input Use color-coding and highlighting for visual focus Incorporate organizational activities into classroom 	 Teach verbal mnemonics, rhyme for automaticity Teach organizational skills Assist student in creating a "To Do List" and help him prioritize homework Ask student to talk through the steps he will use when completing assignment
 Opportunities for developing oral and written communication High level, open-ended problem-solving like Math Olympiad 	 Copies of text for highlighting 	 Master keyboarding Use computer to increase productivity 	 Use systematic multisensory approach to word decoding/encoding Choral reading
Opportunities for brainstorming and creative thinking	 Create a safe environment where risk-taking is encouraged 		
Create a series of key elements in a rap			
 Provide opportunities to develop leadership skills 			
Seek opportunities to compliment student on effort rather than ability		 Help student view mistakes as a valued part of the learning process Encourage student to equate effort with success 	

Twice-Exceptional Strategies Plan

Name:		Grade:
School:		
Strengths:	Interests:	Challenges:
Strength-/Interest-Based Acc	commodations	
Accommodations to Access Lo	earning	
Explicit Instruction: Compens	satory Strategies	
Explicit Instruction: Interven	tion/Remediation	

Examples of Accommodations and Explicit Instruction for Cognitive Processing/General Intellectual Ability

Strength-/Interest-Based Accommodations	Accommodations to Access Learning
 Provide fast-paced instruction and provisions for progress through curricula at students' personal learning rates. Place emphasis on higher-level abstract thinking and problem-solving. Utilize pre-testing to identify what students know and eliminate unnecessary drill. Use instructional planning that anticipates diverse learning needs and characteristics of individual students. Use inter-disciplinary instruction and application of learning content to aid students in making connections. Place emphasis on students' interests, learning styles, and strengths. Provide opportunities for independent and small-group projects and investigations. Create a conceptual framework or overview of new material for conceptual/holistic processing. Utilize concept-based thematic instruction. 	 Extend time for students with slow processing and fluency issues. Allow audio-taped or verbal responses instead of written response. Use technology to increase productivity. Provide preferential seating away from distracting noises (radiators, projectors). Chunk new learning into manageable subtasks. Use FM system for a student with auditory processing or hearing problems. Create visual graphs/charts to support learning and demonstrate relationships. Incorporate organizational activities into classroom activities. Make sure students understand the homework by having them retell what they are to do. Team disorganized student with a well-organized student for collaborative project, making sure each student can contribute from a strength area.

Explicit Instruction: Compensatory Strategies

- Teach students to create flow charts, graphic organizers, and cognitive webs.
- Train students how to identify important facts or concepts and to create outlines or webs.
- Use self-talk to accompany visual input.
- Coach students in the use of mnemonics to enhance memory.
- Teach metacognitive/mental scripts that emphasize self-regulation.
- Demonstrate and teach task-analysis and prioritization strategies.
- Teach strategies to maintain attention, like sitting up straight and leaning upper body toward speaker.
- Highlight and color-code to organize and prioritize new information.
- Provide instruction in self-directed learning skills with emphasis on study skills, time-management skills, organizational skills, etc.

- Coach students in setting realistic longterm and short-term goals.
- Teach students to chunk or break down project into steps and talk through steps.
- Instruct in systematic multi-sensory approaches.
- Teach students how to rephrase key ideas and link to key words.
- Teach strategies to group and categorize information.
- Provide direct instruction in organization, time management, and study skills.
- Provide explicit instruction in phonological awareness, phonics, and decoding.
- Teach verbal mnemonics and rhyming to increase automaticity.
- Use games to encourage fact memorization and continued practice using dice rolls, spinners, and game cards.

Examples of Accommodations and Explicit Instruction for Specific Academics

Strength-/Interest-Based Accommodations

- Use flexible, non-permanent instructional grouping practices designed to facilitate accelerated/advanced academic learning (cluster groups, cross-age groups, interest groups, etc.).
- Provide content learning that requires gifted and talented students to be engaged in higher-level thinking, abstract thinking, and problem-solving.
- Use challenging reading program/materials (*Jr. Great Books* or *William & Mary Curriculum*).
- Provide high-level materials, activity, and product options that include analytical and critical thinking skills.
- Accelerate vocabulary development through a variety of strategies and materials.
- Encourage participation in creative writing opportunities, debate, or advanced literacy activities.
- Pre-test in math to identify material already mastered and replace with enriched and accelerated material.
- Use high-level problem-solving approaches that emphasize open-ended problems with multiple solutions or multiple paths to solutions.

Accommodations to Access Learning

- Provide books on tape for students who struggle with reading and high-level discussions.
- Use advanced organizers or provide outlines.
- Utilize computer spell-check, thesaurus, grammar checker, and calculator.
- Display fact charts or have fact charts available for student use.
- Reduce number of problems required or increase amount of time for assignment.
- Provide adequate space for students to work out solutions.
- Cut the worksheet in half or in fourths, and require the completion of one section at a time.
- Use matrix paper as a physical guide to keep the numbers aligned.
- Provide copies of notes and overheads.
- Shorten directions and make them clear and concise.
- Encourage neatness rather than penalize for sloppiness.
- Clearly segment instruction and plan 20-minute instructional segments.

Explicit Instruction: Compensatory Strategies

- Teach *Inspiration* software to aid students in organizing information, writing, and projects.
- Instruct students in how to break new learning into manageable subtasks.
- Teach students how to keep an idea journal.
- Instruct students in the use of highlighters to note key information.
- Highlight the mathematical sign for operation to be performed.
- Use manipulatives and arrays to help students understand mathematical processes.
- Provide instruction for a wide range of technology to increase productivity.
- Estimate amount of time an activity will take and determine how long it actually took.
- Use software programs.
- Teach research strategies and skills essential for in-depth study and advanced learning.

- Use systematic multi-sensory approaches to teach decoding/encoding.
- Provide instruction in organization/strategies for written language, computation, problem-solving.
- Utilize choral reading to increase fluency.
- Teach typing and word processing.
- Use activities to increase rate and fluency (flash cards, computer games, etc.).
- Teach students to prioritize homework.
- Encourage three-finger tracking.
- Provide direct instruction in comprehension strategies, connecting, inferencing, predicting, etc.
- Teach and model webbing, storyboarding, and flowcharting.
- Teach students to use checklists, keep logs, or mark their progress on a chart.

Examples of Accommodations and Explicit Instruction for Creativity

Strength-/Interest-Based Accommodations

- Provide opportunities for "real world" investigations and experiences (in-depth study of real problems, career exploration, etc.).
- Encourage fluency, flexibility, originality, and elaboration through open-ended classroom activities and products.
- Provide opportunities for creative problemsolving and divergent thinking techniques.
- Utilize biographies of creative/talented individuals to promote success and to provide awareness of characteristics.
- Provide opportunities for students to connect prior knowledge to new learning experiences and to establish relationships across the discipline.
- Utilize "think, pair, share" strategies.
- Integrate creative thinking skills and problemsolving strategies with solid learning content.
- Emphasize mastery of concepts and minimize home practice.

Accommodations to Access Learning

- Provide creative choices when students process information or develop products.
- Provide opportunities for creative and critical thinking.
- Assess specific content in spelling, writing skills.
- Allow multiple ways for students to demonstrate knowledge.
- Provide a stimulating educational environment where there are opportunities for critical and creative thinking and problem-solving.
- Emphasize time-management in the classroom and give notice for deadlines, tests, etc.
- Allow time at the end of the day for students to get organized before they leave school.
- Encourage students to learn compensation strategies to bypass their disabilities.
- Celebrate effort, completion of homework, and attainment of goals.

Explicit Instruction: Compensatory Strategies

- Instruct students in the multiple steps of creative problem-solving: to identify problem, explore data, generate ideas, develop solutions, and build acceptance.
- Coach students in SCAMPER technique to substitute, combine, adapt, modify, put to other use, eliminate, and rearrange.
- Teach technique of brainstorming so students can generate numerous and innovative ideas or alternatives in a safe environment where judgment is withheld.
- Coach students in generating ideas or alternatives with fluency, flexibility, originality, and elaboration.
- Encourage students to start a homework session by planning what will be accomplished during the session.
- Ask students to jot down how long they think an assignment will take and ask them to record how long it actually took.

- Teach idea-generation and brainstorming.
- Instruct students in paraphrasing.
- Coach students in how to break down and chunk projects into multiple steps with realistic short-term goals.
- Promote success as the ability to achieve realistic short-term goals.
- Provide opportunities for students to explore career and college opportunities.
- Teach students how to solve problems using creative problem-solving steps.
- Encourage students to talk through the steps they will use when completing assignments and projects.
- Help them break down tasks into manageable segments and use a calendar to plan steps needed to complete project.
- Provide specific instruction on organization.
- Teach students how to study, prepare for tests, and organize reports and projects.

Examples of Accommodations and Explicit Instruction for Visual, Spatial, and Performing Arts

Strength-/Interest-Based **Accommodations Accommodations** to Access Learning • Provide exposure and access to advanced ideas. • Offer options for acquiring information and communicating what is learned using multiple research, and works of eminent producers in many fields. intelligences and learning styles. • Embed multiple intelligence strength areas into • Provide connections to real world and build on instruction. students' intrinsic motivation. • Create story boards. • Allow students to vary assignments. • Learn and use visual-spatial strategies in the • Provide adaptive physical education. content areas. • Allow students to vary assignments and use • Use visual-spatial activities/products to improve alternative ways to demonstrate knowledge. performance in weaker academic area(s). such as oral presentation, tape-recorded or video response, create a poster or book • Help students transfer abstract thinking into a jacket, etc. variety of forms of expression. • Accept oral responses in lieu of written. • Use graphic organizers to help students organize and process information in content areas. • Match teaching style to students' learning styles. • Offer choice in student assignments and assessments so students can use their strengths to Provide opportunities for students demonstrate their knowledge. demonstrate achievement and excellence through competitions. exhibitions. performances, presentations, etc. • Provide environmental modifications to allow for movement, flexibility of workspace, etc.

Explicit Instruction: Compensatory Strategies

- Use musical chants, raps, rhymes, melody, and rhythm to help students learn.
- Teach students to use visual imagery.
- Create visual graphs/charts to support new learning and demonstrate interrelationships.
- Teach grouping and categorizing strategies.
- Teach and model creating flow charts, graphic organizers, and cognitive webs.
- Anticipate/predict when and where difficulties may occur.
- Draw the solution to a problem to capitalize on visual strengths.
- Make everything as visual as possible. Use graphic organizers, charts, graphs, timelines, maps, pictures, or videos.
- Teach problem-solving strategies.
- Encourage struggling readers to listen to books on tape so they can participate in class discussion.
- Teach visual approach to spelling.

- Provide direct instruction in use of *Inspiration* software.
- Teach how to use visual imagery.
- Guide students through long-term projects designed to demonstrate good planning and time allocation.
- Teach students to use nonverbal cues and environmental cues.
- Educate students in organizational techniques and study skills.
- Teach a variety of strategies to plan, organize, and manage daily routines and meet personal goals.
- Teach self-monitoring strategies.
- Teach students to use metacognitive strategies to monitor their thinking in the learning process.
- Teach the meaning of prefixes, suffixes, and root words in order to teach new words.
- Provide explicit instruction in phonological awareness, phonics, and decoding.

Examples of Accommodations and Explicit Instruction for Physical/Psychomotor/Athletics

Strength-/Interest-Based	Ĺ
Accommodations	

- Pre-test and compact the curriculum when students have mastered concepts to eliminate unnecessary drill and practice.
- Provide hands-on experiential learning opportunities so students can enhance learning by making mind/body connections.
- Use "most difficult first" strategy (see page 29) and pre-testing to allow students to demonstrate mastery of concepts and eliminate unnecessary drill.
- Provide a great deal of structure and consistency in daily schedule with clearly defined rules and consequences.
- Incorporate high-interest topics or activities to enhance the likelihood students will initiate and sustain work on assignments.
- Create opportunities for students to build a model or a 3D display.
- Encourage students to pursue writing in their area of interest and share with appropriate audiences.

Accommodations to Access Learning

- Provide opportunities for movement with a purpose such as sharpening a pencil or running an errand.
- Allow use of manipulatives (silly putty, balls, clay, etc.) to help sustain attention.
- Eliminate excessive copying from the board or book to paper.
- Provide preferential seating away from distractions.
- Provide adaptive physical education.
- Provide clear, concise directions, expectations.
- Grade papers for ideas, not handwriting.
- Provide grading rubric and/or show an example of what is expected.
- Record homework on voicemail or web site so student can access assignments from home.
- Give positive feedback and re-direction when attention wanders.
- Build lots of movement into learning tasks for those students who learn better when they are moving.

Explicit Instruction: Compensatory Strategies

- Classroom teacher collaborates with special educators.
- Teach keyboarding skills.
- Teach students how to create and give a multimedia presentation.
- Use audiotape instead of hand-writing notes.
- Learn to use oral input software.
- Teach strategies for dealing with change.
- Introduce creative writing activities where the student can have fun while practicing correct letter formation.
- Break down writing into smaller tasks whenever possible.
- Teach visual approach to spelling.
- Brainstorm ideas prior to writing.
- Alert students when important information is being shared.
- Provide clear, concise directions, expectations, and rules that are limited in number.

- Encourage students to think about training to study and do schoolwork the same way they train for a sport.
- Provide instruction in proper sequencing of handwriting specific letters.
- Provide practice to improve visual motor control with activities where students coordinate what they do with what they use (e.g., use of easels, chalkboards, playing jacks, pick-up sticks).
- Teach students to create a "To Do List" and prioritize homework.
- Teach reading and writing strategies like outlining, mapping, and editing.
- Teach students self-management skills like strategies for staying on-task, skills for thinking and waiting before acting, and skills for sustaining attention.
- Provide practice tracing shapes and letters, especially similar letters such as l, j, t, etc.
- Teach keyboarding and word processing skills.

Examples of Accommodations and Explicit Instruction for Interpersonal/Leadership

Strength-/Interest-Based Accommodations **Accommodations** to Access Learning • Provide opportunities in the classroom Constantly search for opportunities to promote students to develop their leadership skills. and encourage appropriate social interactions for socially challenged students. • Encourage a social climate within the classroom that fosters acceptance and appreciation for the • Provide preferential grouping or pre-select strengths of all students. teams of students — don't permit students to choose and reject others. • Read, analyze, and discuss biographies of famous • Set clear expectations for behaviors. • Ask students to develop a list of qualities of a • Do not tolerate intolerance. leader of their choice and then have students • Provide preferential seating. compare or contrast their own qualities with those • Encourage students to develop interpersonal of the leader. and leadership skills. • Provide learning opportunities for students to • Clearly state and consistently implement work cooperatively with peers of like ability and expectations and consequences. interests. • Develop behavior plans to address problem • Use hypothetical situations, bibliotherapy, and situations. moral dilemmas to foster an accepting • Avoid power struggles, pick your battles, and environment for all students. maintain a calm, neutral response. • Search for strengths of students and build on those

Explicit Instruction: Compensatory Strategies

• Teach skills needed to participate successfully in group work.

- Provide groups with checklists of social skills needed for group work and have students evaluate their group.
- Teach empathy.

strengths.

- Provide positive reinforcement when students use the skills they were taught.
- Teach leadership skills and provide in-school leadership opportunities.
- Encourage and teach students how to become self-advocates.
- Help students learn to value diversity.
- Provide opportunities for structured group work.
- Develop high-level effective communication, collaboration, and self-advocacy skills.
- Support a positive environment where students respect and compliment others.

Explicit Instruction: Intervention/Remediation

• Communicate with peers or experts online.

- Provide friendship groups where students can learn and practice interpersonal skills.
- Assist students in learning social skills and appropriate interactions.
- Provide opportunities for students to practice self-advocacy and have students role-play to develop advocacy skills.
- Teach students how to develop and maintain friendships.
- Help students learn how to resolve issues that occur as friendships grow.
- Encourage the development of effective skills to interact with peers.
- Provide support services for students with trained counselors or social workers.
- Teach students to work as part of a team.
- Teach skills for resolving conflicts.
- Coach students in understanding body language and reading social cues.

Examples of Accommodations and Explicit Instruction for Intrapersonal and Social/Emotional

Strength-/Interest-Based Accommodations

- Provide a nurturing environment that values and respects individual differences.
- Include activities which will help the student explore his/her attitudes, opinions, and self-awareness.
- Teach knowledge of self including learning abilities, learning styles, interests, nature of giftedness, etc.
- Help students view mistakes as a valued part of the learning process.
- Seek opportunities to compliment students on effort rather than ability.
- Encourage students to equate effort with success.
- Provide students with frequent opportunities to work cooperatively in a group.
- Teach awareness and expression of different feelings.
- Teach metacognition and sensitivity to others.
- Provide access to scholars, expert practitioners, and gifted role models.

Accommodations to Access Learning

- Allow breaks for physical activity to reduce mental fatigue.
- Maximize success and minimize failures.
- Offer counseling and guidance strategies specifically designed around the unique affective needs of GT students (feelings of being different, effects of uneven development, motivation, coping with learning barriers).
- Provide career exploration and career counseling programs including future education planning, counseling, and guidance.
- Focus attention on the development of strengths, interests, and intellectual capabilities rather than disabilities.
- Encourage the development of strength areas by allowing time and resources to explore interests.
- Ask students to become resident experts for the class in their areas of strength or interest.

Explicit Instruction: Compensatory Strategies

- Teach students to use self-talk/metacognitive cues to accompany processing.
- Help students understand that mistakes are a part of the learning process.
- Work with students to develop a grading rubric before a project begins.
- Teach students how to evaluate their own work.
- Help students learn to set realistic goals, develop a plan to achieve those goals, and to evaluate their progress.
- Teach knowledge and skills necessary to manage potential difficulties in learning such as perfectionism, risk-taking, stress, heightened sensitivities, pressure to perform, and high expectations of self and others.
- Help students deal with fear of failure, fear of success, procrastination, and paralyzing anxiety.

- Provide support services with counselors, school psychologist, or social worker.
- Teach mental scripts that emphasize self-regulation.
- Teach strategies to manage anger.
- Promote and teach positive coping strategies.
- Work at building resiliency.
- Help them to use positive self-talk about studying and to develop positive self-monitoring strategies.
- Teach how to identify and manage feelings.
- Develop personal behavior management skills.
- Teach students to label, control, and express their emotions appropriately.
- Assist students in developing positive coping strategies such as seeking support, positive reappraisal, and accepting responsibility.

Parenting Gifted Students With Disabilities

- Create a home environment that nurtures your child's strengths and interests.
- Build a working relationship with your child's school and keep the lines of communication open between home and school.
- If your child is depressed, dislikes school, underachieves, or develops behavior problems, communicate your child's problems and needs to the school.
- Work in partnership with the school to identify your child's learning and/or social/emotional problems.
- Collaborate with the school to develop a suitable educational plan for your child that addresses his/her needs.
- Create a supportive, stress-free environment for homework and designate a set time and place to study.
- Help your child learn skills needed to be successful in school. Assist with homework and projects, but do not assume responsibility.
- Remember that the role of parents changes as the child reaches different ages.
- Equate success with effort, not ability, and view mistakes as a valued step in learning.
- Help your child learn how to become a self-advocate.
- Encourage your child to develop the skills necessary to become an independent life-long learner.
- Advocate for your child, but don't overprotect him/her. Hold your child accountable for his/her behavior and achievement.

Parent Advocacy

- Build a working partnership with your child's school.
- Work with the school's staff to improve educational opportunities for all students.
- Support the positive efforts of teachers and school staff to meet the individual educational needs of students.
- Participate on school committees like the school's accountability committee and school enrichment or activity committees.
- Volunteer your time to assist with activities or help in the classroom, media center, computer lab, etc.

When Children Experience Problems in School

- 1. Know the child.
 - What are his/her special interests, strengths, and struggles?
 - How does the child interact with peers, older children, younger children?
 - How does the child feel about trying new things or making mistakes?
- 2. Clarify the issues and try to get a sense of the real problems by discussing them thoroughly with the child.
- 3. Schedule a meeting with the classroom teacher.
 - Approach the teacher with care and sensitivity.
 - Plan the meeting and topics to discuss.
- 4. During the conference:
 - Keep the conversation a positive learning exchange.
 - Start with positive comments about the school and the teacher. Thank the teacher for ______.
 - Communicate expectations and share specific examples of the child's work, feelings, strengths, struggles, interests, and after-school activities.
 - Listen carefully to what the teacher has to say.
 - Express willingness to help resolve the problem and work collaboratively toward a positive solution.
 - Decide together what the child, you, and the teacher will do.
 - Determine a reasonable timeline and establish when the effort will begin and when progress will be evaluated.
- 5. After the conference:
 - Keep the lines of communication open.
 - Schedule a follow-up meeting to assess progress.
- 6. If the child continues to struggle, ask that he/she be referred to the school's student study team. This team will develop a plan to meet individual educational needs and recommend specific intervention strategies.



Case Studies

Twice-Exceptional Case Study Brandon 13 Years Old — 8th Grade

In school:

Brandon was referred because there were significant concerns regarding a discrepancy between CSAP scores and academic grades. Brandon has a strong desire to be successful in school. Teachers describe Brandon as having many good ideas. He is polite, respectful, and enjoys reading. Brandon seems to enjoy school, but sometimes gets anxious. He has difficulty meeting the expectations in a general classroom setting. Concerns include difficulty following directions, remembering assignments, and struggling with work completion. He is sometimes neglectful, forgetful, and very disorganized. Difficulty with organization is evident by how he struggles to keep his binder organized, locate assignments, and keep track of due dates. It also takes Brandon a significant amount of time just to organize his thoughts. This need for extra time for understanding and processing information is very evident. In the classroom, he often does not understand what is expected. Brandon's struggle with understanding directions negatively impacts his completion of assignments. A teacher noted that frequent comprehension checks have been helpful.

At home:

Mom describes Brandon as brilliant, charming, attractive, insightful, and a hard worker. He is talented in music and plays four instruments. Brandon is first chair in his school band. Primary concerns include: disorganization, poor grades, and misunderstanding information. He seems unmotivated and doesn't seem to make the connection between effort and poor grades. Lack of work completion and difficulty turning in completed work are the main causes of poor grades. Brandon is very emotional (cries every day), overly sensitive, and frequently "gets ill" when an assignment is due. He struggled with gross and fine motor coordination from an early age. He did not learn how to ride a bike until he was nine years old, and his handwriting continues to be extremely difficult to read. He has a history of severe allergies and sinus infections. As a result he missed an entire month of school last year.

In his own words:

Overall, Brandon describes this year as very frustrating. Brandon has a strong desire to be successful in school. He is frustrated with how hard school has become for him, because he knows he is capable of earning As in his classes. Primary concerns at the moment include world events he sees on the news. "There is scary stuff happening like SARS, terrorism, and war," he said. Additionally, he admitted to being worried about his grades, but stated that he works very hard. Brandon thinks that his teachers give too much work and he feels overwhelmed. He reports the work isn't too hard, just too much. He said extra time would be helpful, especially with big long-term research projects. He said he does much better seeing directions on assignments instead of just hearing them. He says he tends to collect a lot of research, but it takes him a long time to read and sort the information. When asked why he completes assignments but doesn't hand in the work, he stated that if he didn't understand the assignment or feels it's not up to par, he doesn't hand it in so he can add to it and make changes.

Testing:

During the testing Brandon was very cooperative and he tried very hard. On the math calculation test he was able to complete problems that he had just learned to do that week. He did sometimes struggle with setting up the problems. For example, on a multiplication question, he tried writing the problem in three different ways before he was able to complete it. He did get the problem correct, but it took him a significant amount of time just to organize his thoughts. This was also true with the fluency subtests. Brandon was highly accurate, but just was unable to work at a rate that would be expected given his tested abilities.

Strengths: Weaknesses:

General information
Vocabulary
Pre-algebra
Superior oral language
Academic skills
Organization and planning
Auditory processing
Inability to sequence
Visual memory
Visual motor coordination

Academic skills Visual motor coordination
Detail oriented Cognitive flexibility

Interpersonal skills Transitions

WISC

Verbal	S.S.	%tile	Performance	S.S.	%tile
Information	16	98	Picture Completion	11	63
Similarities	16	98	Coding	06	09
Arithmetic	14	91	Picture Arrangement	09	37
Vocabulary	17	99	Block Design	11	63
Comprehension	13	84	Object Assembly	08	25
Digit Span	14	91	Symbol Search	10	50
Verbal Score	131	98	Verbal Comprehension	131	98
Performance Score	94	34	Perceptual Organization	99	47
Full Scale Score	114	82	Working Memory	124	95
			Processing Speed Index	91	27

Woodcock-Johnson Test of Achievement	S.S.	%tile
Broad Reading	101	53
Letter/Word Identification	102	54
Reading Fluency	101	53
Passage Comprehension	110	75
Broad Writing	113	81
Spelling	122	93
Writing Fluency	93	31
Writing Samples	127	97
Broad Math	117	88
Calculation	130	98
Math Fluency	97	41
Applied Problems	111	76

Twice-Exceptional Gifted/LD Case Study Alicia 9 Years Old

In school:

Alicia is a nine-year-old and passionate about her love of horses. She can discuss almost any aspect of her passion in great detail including: characteristics and history of various breeds, history of the domestication, and training and riding methods. Alicia is a talented artist and has a wonderful portfolio of her horse drawings, paintings, and sketches.

Alicia contributes to many class discussions and frequently relies on her visual memory, advanced vocabulary, and unique sense of humor. Teachers comment on Alicia's ability to remember so much detail.

Alicia struggles with reading and writing. Her oral reading is not fluent, characterized by word-by-word reading with many decoding errors. She relies on sight words, contextual cues, and her advanced abilities in reasoning skills to comprehend and predict text. Alicia is very self-conscious about her oral reading and hates when she is called on to read in class.

Alicia's writing is characterized by many wonderful and creative ideas that are very loosely organized. Her writing has many spelling and grammatical errors.

Alicia has always struggled with the weekly spelling tests. She works hard daily and practices each night, but still only manages to average *B*- or *C* on the weekly tests.

At home:

Alicia lives with her mother and younger brother. She spends much of her time doing homework, studying for spelling tests, or working on the computer researching horses. She will also work on her portfolio, adding to her sketches and drawings. Weekends are usually devoted to riding and doing extra work around the stables.

In her own words:

Alicia is very frustrated by her inability to read and write as well as most of her classmates. She says this makes her feel "stupid." She is particularly upset by the teasing she sometimes receives during spelling bees at school. She says she never gets picked to be on a team. Alicia does not see herself as well-liked by her peers and does not go out of her way to include herself in socializing at school. She claims that no one shares her interest in horses and she has nothing in common with anyone.

Twice-Exceptional Gifted/EBD Case Study Doug 12 Years Old — 7th Grade

In school:

Doug has been receiving special education services for his emotional/behavior disorder since he was eight years old. His behaviors were characterized by extreme and sometimes unpredictable outbursts which included throwing objects, tearing papers or books, and hitting people. Despite his excellent vocabulary, love of reading, and ability to problem-solve, Doug was not identified as "gifted" until recently. His overall IQ of 147 was a great surprise to most of his teachers. Doug's history teacher stated, "How can he be gifted if he is identified as EBD? He can't keep up with the gifted kids!"

Doug likes to identify himself as "cool." He spends time with a group of students who have gained a local reputation as troublemakers. A few of his friends have had recent run-ins with the law.

Doug loves music and drawing. Although he does not play any instrument, he talks about joining a rock band when he gets older. He combines his love (and fantasy) of joining a rock band with his artistic skills by designing CD covers and sketching out scenes from the music videos he wants to create and produce.

Doug is clearly a leader — although he may be demonstrating his leadership skills inappropriately at times. He knows how to draw people in to his inner circle and motivate them to collaborate with him on any number of tasks.

Doug's performance in academic areas is sketchy at best. When he is involved in a creative project of some kind, his interest will keep him motivated enough to complete the task. Doug excels in creative writing and talks about writing music lyrics. He is also a very talented artist. Much depends on his relationship with his teacher. If he likes his teacher, he is more likely to live up to the expectations. If not, he does not care.

At home:

Doug lives with his mother and younger sister. His parents divorced when Doug was five. Doug's father lives out of state. Doug speaks to his father regularly and sees him during school holidays and the summer months. Doug's mother is very concerned. She is afraid that Doug's friends are a bad influence on him and that he will soon have problems with the law. She recognizes her son's intelligence and creativity but does not know how to nurture that or how to advocate for her son. Her biggest concern and fear is Doug's involvement in potentially illegal activities (including rumors of his friends using drugs).

In his own words:

"I go to school because I have to. Once I am legally able, I want to quit school and start a rock band." When asked to identify his greatest challenge, Doug said, "People think I'm crazy because I get into a lot of fights at school. I don't care what people think about me." When asked what were his strengths, Doug's response was, "I don't know . . . Maybe I'm just really good at causing trouble."

Twice-Exceptional Gifted/ADD Case Study George 7 Years Old — 2nd Grade

In school:

George is a seven-year-old child in 2^{nd} grade. He is a good friend to his classmates and often volunteers to help them with their work (even when he has not finished his own). George is a high-level thinker. He loves to ask or answer the "why" or the "what if" questions about most subjects, but particularly for science-related themes. He has a passion for investigating UFOs and extraterrestrial beings. He has daily stories to share with the class about the most recent UFO sightings or new discoveries about life on other planets.

George's teachers report extreme difficulty with his ability to pay attention in class, particularly when doing large-group instruction or during less-structured activities (independent work time). During these times, George will look out the window, fidget with anything available, play with his clothing, dig through his desk, etc. He has great difficulty finishing assignments and staying on-task for more than a few minutes at a time. This causes him great frustration and anxiety. He becomes frustrated when he sees his peers are finished with their work and he is not; he becomes anxious if he knows he'll have to stay in during recess or lunch to complete an assignment. George's concentration is greatly improved when he is working in small cooperative groups (no more than three students) or with individual teacher attention.

George can't seem to keep up with his belongings. Although this may be typical for many 2^{nd} graders just learning these skills, for George it is much more severe. He loses clothing, books, papers, and homework. Just about anything given to George is lost during the day.

At home:

George's parents are committed to helping their son but often become very frustrated with him. They report having to repeat requests or demands several times before he acknowledges that he has heard them. George's mother said, "It is almost as if he is off in his own little world and never heard a word I said. Before they diagnosed ADD, I thought they were going to tell me he was deaf!"

Although there has been some improvement since a new medication has been tried, there are still the same old problems. George forgets his homework (or jacket, lunchbox, notes, etc.) in school and needs commands or requests repeated several times. George's parents are worried that his self-esteem is being diminished as he becomes more aware of his challenges.

In his own words:

When asked what he sees as his biggest challenge, George said, "I'm just stupid . . . I forget everything and never finish anything!" When asked what he sees as his strengths, his response was, "Nothing. I am not good at anything."

Twice-Exceptional Gifted/Physical Disabilities Case Study Jason 10 Years Old

In school:

Jason is a very bright and curious child. He loves small-group discussions where he can thrive on asking provocative questions and enchanting his audience with his ability to play with words. He loves reading novels, watching movies, writing or watching plays, writing or reading poetry, and just about anything that involves language and drama.

Jason's cerebral palsy has become more challenging as he gets older. He is now confined to a wheelchair all day, which has really been an emotional setback for him. He has undergone many surgeries over the last few years including procedures to correct blocked shunts and increasing problems with his s-curve scoliosis. His speech is impaired (although he is intelligible) and he has difficulties with most gross and fine motor control.

Jason is currently working on or above grade level in most academic areas. Although he was initially identified for his physical disability and receiving special education and related services for speech and physical therapy, he was only recently identified as "gifted" based on his superior capacity with language. Jason is learning to use various assistive technology devices to help him with his writing.

At home:

Jason lives with his parents and older brother. Jason spends much of his after-school time going from doctor to therapist. He has few friends outside of school and spends most of his free time on the computer, watching movies, or reading plays.

Jason's parents have been strong advocates for their son. They were thrilled when the school finally saw their son as a "gifted" child and not *just* a child with a disability. They always knew Jason was special in many ways, including his unique abilities with words and word play.

Jason's parents' biggest concern, aside from mounting medical bills and problems with medical insurance, is what will happen to their son as he gets older and his medical needs become greater, and who will take care of him when they are gone.

In his own words:

When asked about his strengths, Jason said, "I love going to the gifted class with Mrs. Francetti. She really knows how to make me think! I guess I think of myself as someone who can make people laugh because I know how to tell jokes. I like to write plays. Someday I want to write plays or be a famous actor." When asked about his challenges, Jason said, "I guess my biggest challenge is that I am not great with numbers! I hate math. I don't know how to think with numbers — How do they do it? I guess I also have a challenge because of being in a wheelchair. Although I can get around OK, it still makes things hard for me sometimes. I miss a lot of school because of doctor appointments or having to go in for surgery — I hate that. The doctors and nurses are nice and I get to do my schoolwork while I'm there, but I miss being in school."

Twice-Exceptional Gifted/Sensory Impaired (Visually Impaired) Case Study Wilfredo 12 Years Old

In school:

Wilfredo has been described by his teachers as a "natural leader . . . he has a keen sense of people and social perceptiveness — overall, very strong interpersonal and intrapersonal intelligences exhibited." Wilfredo has some difficulty with logically thinking through solutions. This may in part be due to the fact that many of the logical thinking activities are visually-based dilemmas; however, given time and a partner to work with, Wilfredo can usually come up with some creative solutions.

This student excels in situations that need a leader. He is the first to volunteer to coordinate just about any activity or social service project — particularly those dealing with animal abuse, justice, discrimination, or issues dealing with poverty or homelessness.

Wilfredo is working on grade level for all academic subjects, although his writing composition and vocabulary are very advanced. Wilfredo does have some difficulty with mathematics, although cooperative learning activities seem to help with concept and skill development.

Due to Wilfredo's visual impairment, he is learning to use various assistive technology devices. He uses the computer with special voice recognition software, text reader devices, and enlarged text. He also uses many of these devices for writing and creating multimedia presentations.

At home:

Wilfredo lives with his mother, father, and two siblings. Wilfredo spends much of his free time at the local Humane Society where he is responsible for feeding the animals and socializing the dogs and cats. He loves this responsibility and has been very influential in raising money in the community and organizing food drives for the animals.

Although Wilfredo has friends in school, he rarely sees them on weekends or during vacations. Wilfredo generally gets along well with his siblings, although according to his mother, he knows how to get under everyone's skin from time to time!

In his own words:

When asked about his strengths, Wilfredo said he knows he is a leader, "or at least that is what my teachers tell me," (as he laughs). "I guess I could use those leadership skills doing something positive when I get older — maybe I can get involved in politics, government, or something like that." When asked about his weakness, Wilfredo said, "I know you expect me to talk about my visual impairment — but that is not my weakness! My weakness is that I do not know how to play a musical instrument — aren't *all* visually impaired or blind people supposed to be musicians?" (again said with a laugh). "You know . . . Ray Charles, Stevie Wonder?"

Twice-Exceptional Gifted/Hearing Disability Case Study Jerry 15 Years Old — 9th Grade

In school:

Jerry is a 15-year-old freshman at the local high school. He uses a sign language interpreter for most of his classes, but has begun using a form of Computer-Assisted Notetaking (CAN) in his social studies class to see if that gives him access to all of the communication in a lecture-based class. The teacher of the deaf consults with Jerry's general education teachers and provides him instructional support once a week during his study hall. During that time, the teacher of the deaf introduces vocabulary and concepts of upcoming new units and reinforces or expands on vocabulary and concepts of recently completed units.

Jerry is generally a cheerful young man. He plays a variety of sports and loves to tell jokes. In class, Jerry performs very well on individual assignments but sometimes struggles in group projects because the other students do not know sign language and the interpreter sometimes can't keep up with the verbal barrage of brainstorming or fast-paced discussions. Jerry excels at math and is currently taking Geometry and is breezing through it. He also loves to read but is a reluctant participant in any oral presentations in school. He maintains a 3.6 grade-point average.

Jerry memorizes facts very easily and often seeks additional information about class topics on the Internet or from library books. His parents and teachers have always commented on how intelligent Jerry is, but it took a few years before he received services as a gifted student because his assessment profile showed inconsistent results, which is typical of students with a hearing disability. He performed well on non-verbal tests and relatively poorly on verbal and timed tests. As he has matured and his English skills have improved, his verbal scores have improved and his assessment profile shows more consistency across subjects/domains. He occasionally uses incorrect grammar or mispronounces sophisticated vocabulary, but overall his language skills are much better than when he was younger.

Jerry knows most of the other students at school and has many brief casual conversations throughout a school day, but he doesn't have a best friend or a small group of close friends. He would like to have more friends to spend his free time with but isn't sure how to make that happen in a comfortable way.

At home:

Jerry was born with a severe/profound hearing loss in both ears. When Jerry's hearing loss was detected when he was two years old, the family began receiving weekly services from a parent advisor in an early intervention program for families of children who are deaf or hard of hearing. He was only saying random vowel sounds when they started with the early intervention program. The family decided that using sign language would be the best way to communicate fully with Jerry. Before long, he knew and used many signs and began learning to

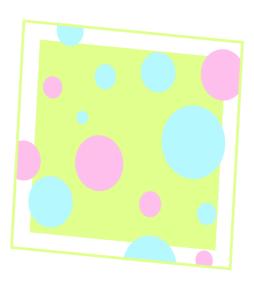
pronounce some words. Since that time, Jerry's language skills have continued to improve, especially since he learned to read. Jerry had hearing aids but stopped wearing them when he turned 13. He reports that they are not that helpful to him.

Jerry's parents and his sister are fluent in sign language, so they are able to communicate fully with each other. The family is very close and often goes camping, hiking, biking, or snowboarding together on weekends or holidays.

Jerry has played recreation league soccer, football, and baseball. He loves being active and enjoys the challenge of playing sports. He has expressed interest in trying out for one of the school teams, but is unsure if he would like having the interpreter there or if he would be able to function well without the interpreter there.

In his own words:

When asked what his strengths are, Jerry replies, "I'm good at math and sports. When I'm working a math problem or playing a sport, I am equal to hearing kids." When asked what his weaknesses are, Jerry hesitates and then says, "Sometimes I'm not very good with new words, and writing takes some extra time to be sure I don't make any errors." When asked if he likes school, he laughs and says, "Sure, I like to learn, but sometimes I get bored." Jerry plans to attend the National Technical Institute of the Deaf and major in microelectronics or telecommunication engineering.



Recommendations for Case Studies

Some Recommendations for Brandon's Educational Team

Addressing Strengths:

Brandon has some significant strengths and should be allowed to use them as much as possible. For example, because he has strong verbal skills he should be allowed to give oral presentations and to use oral assessment. Brandon enjoys reading, so he should be allowed to have choice in his reading material. Choice will help Brandon to maintain his enjoyment of reading.

Additionally, he would benefit from group work where he where he can use his strong interpersonal skills. The remaining group members may have strengths that could balance out Brandon's weaknesses.

In mathematics, Brandon should be pre-assessed to determine what he already knows and should then be provided with more advanced levels of instruction. The "most difficult first" strategy should be a regular part of Brandon's assignments. This will help him to receive appropriate credit for what he has learned while eliminating the opportunity for him to lose his work before he can turn it in. Curriculum compacting and acceleration in mathematics will allow Brandon to continue his learning in the content area of his talent.

Addressing Challenges:

Brandon is the type of student most likely to be labeled lazy. Because there is such a large discrepancy between what it seems like he should be able to do and what he actually does, teachers may struggle to understand why accommodations are necessary. First and foremost, all of his teachers need to understand that, while his verbal reasoning skills are quite strong, he will need support in the classroom.

To support Brandon with following directions, several steps should be taken. All directions should be provided both in writing as well as verbally. Before directions are given, Brandon should be cued that something important is coming. This could be a hand signal, teacher proximity, an announcement with wait time, etc. Directions should be given in a step-by-step manner (first, next, last, etc.) when possible. The teacher should also have Brandon (or other students) clarify directions in their own words (for example, "What will you do first?" or "Turn to your partner and explain in your own words what you should do.") Frequent check-ins at the beginning of an assignment would also be beneficial.

In terms of organization, Brandon and a trusted adult should come up with a plan for keeping him organized, and should meet regularly to evaluate the system. Brandon needs to have a voice in how this occurs or he will be less likely to buy in to the plan. Also, Brandon should be included in order to empower him. Teachers should ask, "Where are you going to put this?" and "How will you remember where it is?" frequently until this becomes routine for him.

It would seem that working memory is also a weakness for Brandon. As much as possible, strains on working memory should be alleviated. In writing, the sooner he can be taught to keyboard, the better. While this may take a long time and be frustrating in the beginning, it will be worth it in the long run. Also, Brandon should be taught to write in a process. First, he should organize his thoughts — this could be dictating a brainstorm into a tape recorder or using a graphic organizer. His first draft should focus just on getting ideas on paper. Next, he should edit for organization only. Then, he should edit for conventions, and so on. This frees up his brain to focus on only one thing at a time. For math, he should be allowed to write the steps to problemsolving on an index card so that it can help speed up this process. He knows how to do the steps, but gets overwhelmed with too many of them. Having them on paper allows him to be more efficient. Also, Brandon should be allowed to use paper that helps organize space. Graph paper, for example, helps to keep problems lined up.

Whenever possible Brandon should also be taught how concepts relate to each other. Because cognitive flexibility is a weakness, he needs to be directly taught generalization skills.

Brandon should also be allowed extra time to complete assignments or he should have shortened assignments. Any time a long-term project has been assigned to Brandon, a teacher or other adult should sit with him to sub-task it into smaller parts in order to make it more manageable. Timelines should be established with a checklist so that Brandon can monitor his progress and determine whether or not he will finish in a timely manner.

Lastly, Brandon has some emotional concerns that need to be addressed. He should have a safe person he feels comfortable talking to when he gets overwhelmed. He should be allowed to go to this person or a safe place when he feels he is losing control. He may need a hand signal or sign to let his teachers know when he needs to get himself together. He should also be taught coping strategies that will enable him to manage his emotions in the classroom better.



Some Recommendations for Alicia's Educational Team

Addressing Strengths:

Allowing Alicia to use oral expression for demonstration of learning will be beneficial. With her advanced vocabulary and excellent memory, she should be encouraged to further develop her presentation skills. Perhaps this could include observing public speakers and television news personalities.

Research conducted on the computer has been successful for Alicia. Thus, this method should be encouraged in lieu of methods more tedious for her. She should also use the computer or other similar keyboarding mechanism to word-process her writing, which already exhibits creativity and good ideas. Her writing talent should be even further developed in the areas of voice, perspective, and word choice. She should be writing in a variety of styles and for a variety of purposes and audiences. As she develops her confidence in her writing ability, the grammatical and spelling difficulties can be addressed by the teacher, or other individual, acting as her editor.

Alicia should be allowed to use her passion for horses whenever she chooses to do so as she learns other skills. Alternate assessments that incorporate choice for Alicia to use her artistic ability would provide an appropriate means to demonstrate learning.

Addressing Challenges:

Alicia's phonemic awareness should be tested. Given her trouble with decoding and spelling there is a strong possibility that Alicia does not have strong letter-sound correspondence. With a systematic, structured approach to provide instruction at her level, such as a multi-sensory phonemic awareness program, Alicia should be able to overcome this.

Alicia's teacher should help her to understand herself as a learner and as an individual. Talking with her about the fact that she is not stupid, but that she simply needs to be taught in another way, will help.

Alicia should be given opportunities to read texts at her instructional level. In content areas, she should not be required to read aloud in front of the class. The teacher could have the students choral read, read with partners, pre-read, and then read as a class. During this process, the teacher should make sure Alicia is able to figure out all the words before the final step. This will alleviate a lot of stress for Alicia. Also, whenever possible, the teacher should pre-teach vocabulary. This would allow the students, and Alicia in particular, to become more familiar and comfortable with vocabulary before reading it in a passage.

In writing, Alicia should be taught how to use graphic organizers for pre-writing activities. She should be encouraged to write in stages (get thoughts and ideas down first, then go back to edit for spelling, then go back to edit for organization, and so on). Because Alicia relies upon and is successful using her visual memory, she can be taught to practice her spelling words using visual methods (colored marker, word shape, etc.).

It may be helpful for Alicia to have a lunch group so that she can learn how to interact better with her peers. This should be facilitated (at least in the beginning) by an adult, and she should be taught some strategies on how to initiate conversations with peers, and how to find out what they might have in common.

Some Recommendations for Doug's Educational Team

Addressing Strengths:

Matching Doug with a mature mentor/professional in the field of music could benefit him in many ways. The mentor could assist Doug to develop his skill in writing musical lyrics and could even help him explore career opportunities and college pathways. Doug should identify the skills necessary and ideal level of education for his future aspirations. He might be interested in learning about graphic design or directing. He should "discover," with guidance, why skills in school are important for his aspirations. Finally, this mentor should be someone Doug can look up to as a positive leadership example.

A natural leader, Doug should be offered opportunities to develop this talent in a positive manner. Specific leadership instruction in a small focus group could be provided. At the appropriate time, Doug could be encouraged to start an after school club, sponsored by a teacher, for students interested in starting a rock band or learning an instrument.

Finally, his artistic talent should be encouraged by an art teacher. He should be allowed to use his artistic and musical talent in products to show learning and as alternate assessments.

Addressing Challenges:

Educators should take the time to get to know Doug — not with regard to school topics, but what he does for fun, what bands he likes, what instrument he wants to play; they should ask to see his CD designs and his artwork. Doug needs to have a connection to his teachers and to feel important and valued.

Doug would benefit from small-group projects where he could use his talents. Making him a group leader, and talking to him privately about how well he is expected to perform, would be helpful.

During instruction, the teacher's use of examples that connect to Doug's interests will help him to become engaged (for example, CD sales in a math lesson). This does not have to be daily, but from time to time.

Doug would also benefit from being allowed choice in his learning and in activities. This can help him feel empowered. However, the teacher must always make clear the expectations and parameters.

Doug will need frequent positive feedback with regard to his strengths and what he has done well. This should be specific and genuine. He will see through artificial attempts, and this could damage any rapport an educator would have established with him.

Some Recommendations for George's Educational Team

Addressing Strengths:

As with many gifted learners, George enjoys learning to greater depth, as evidenced by his "why" and "what if" questions. Thus, complexity and higher-order thinking skills should be embedded in his instruction and in his activities. Lessons should be designed that allow George to delve into a topic in more depth.

Special attention should be given to George's areas of strength. Utilizing the body of evidence that has been compiled for his gifted identification should reveal some of these areas.

George has an interest in science-related themes and is already beginning to investigate UFOs and extraterrestrial beings. Allowing George to utilize this topic for writing, for research, and for investigating mathematics when he so chooses may help him to maintain interest in his work.

Addressing Challenges:

Because George works so well in small groups, he should be given opportunities to do this often. During independent work time, it would be helpful to use a timer for George. Start small — ask him to work for five minutes. Then allow a short break to get a drink, stand and stretch, or run an errand. Using a timer will help George to focus for a set amount of time that he can see. Give him goals such as "I want you to finish three sentences before the timer goes off."

When giving directions, give the big idea first, such as what the outcome will be, or the purpose of the assignment, and then provide the details. George is a big-picture thinker, and would greatly appreciate this. Use nonverbal cueing such as close proximity, standing in a specific spot in the room, a hand on George's shoulder, etc. Directly instruct what to look and listen for when important information is about to be given: identify students doing the right thing and call the class's attention to it. Change tone of voice during large-group instruction: sometimes a quiet voice is more powerful than a loud one. Positively reinforce the small things that George does right, being specific and genuine. After giving directions, have him restate them in his own words or through choral response by having several students do this. Provide important information both in writing and verbally.

During transition times, prompt George with cues about his belongings. For example, "George, we are going to gym class now. What will you do with your math paper?" or "Good morning George. That's a nice jacket. Where could you put it so you won't forget it at the end of the day?" Reinforce positively the occasions that George does keep track of his belongings.

Some Recommendations for Jason's Educational Team

Addressing Strengths:

Acceleration may be appropriate for Jason, given the fact that he is working above grade level in some academic areas. Thorough and ongoing assessment should be conducted in order to make appropriate decisions regarding the correct instructional level for Jason.

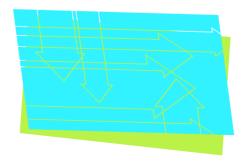
His obvious strength in the language arts seems to be encouraging him toward a life goal of becoming a writer or actor. Thus, an instructional focus to help Jason further develop this writing talent should be part of his educational plan. He should be guided to explore careers in this field and to engage in early college planning, particularly given the fact that Jason can likely be accelerated in this content area. Providing access to competitions and opportunities for publishing will provide an authentic audience.

Addressing Challenges:

Jason should be asked to identify a student with whom he feels he has something in common. Ideally, it would be a student from Mrs. Francetti's class. This student, or several students, can be his buddy — he or she can help Jason figure out what he missed in school and keep up. It might even be nice if arrangements could be made for the buddy, or buddies, to go to a doctor's appointment with Jason, if Jason and his parents agree. Or, the buddy could visit him after a surgery to learn what Jason goes through, to befriend him through his recoveries, and to foster the friendship.

Jason should be encouraged to research successful people who also have disabilities. He and his parents would benefit from learning how they overcame their difficulties to take care of themselves and be successful. Perhaps he could even find a mentor in his community with cerebral palsy with whom he can share successes and frustrations.

Finally, Jason should be given opportunities to shine while he is in school. Projects where he can work with other students and use his creativity and humor would help him get to know other students and continue to feel proud of himself.



Some Recommendations for Wilfredo's Educational Team

Addressing Strengths:

Wilfredo should be encouraged to continue to use his leadership skills and to improve them through service learning opportunities, leadership conferences, being part of a Destination Imagination team, etc. He should be allowed to work with other students as often as appropriate. He should explore careers that interest him and incorporate his strengths. Early college planning will ensure that he has taken the advanced classes that he needs in order to pursue a career in his chosen field.

With strength in writing, he should develop his skill through writing for various purposes, for a variety of audiences, and in various styles. He could even use advanced standards to provide a continuum of learning. He should be encouraged to utilize this talent in connection with his leadership pursuits. For example, he could write a script for his Destination Imagination team.

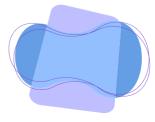
Wilfredo might benefit from starting an after-school club or activity. If he truly is interested in music, he may want to start a "beginning band"; or he could be encouraged to start a newspaper to build on his advanced writing composition and vocabulary. Wilfredo might like a "Quiz Bowl" team or other such activity that would allow him social time with students who have similar interests.

Addressing Challenges:

Reading materials and other texts should be immediately available in appropriate alternative media. For math, Wilfredo may benefit from a homework buddy. He could be paired with a student with whom he could do the first few problems to ensure he understands concepts. Manipulatives may be helpful as he learns mathematics.

Wilfredo should continue to learn to use various assistive technology devices. He should be taught how to keep up with the latest technology and where to find it.

It might be helpful to have Wilfredo study other successful people with vision impairments, or even find a mentor who is visually impaired. This would help him to realize how other persons perform various tasks, particularly in their chosen career.



Some Recommendations for Jerry's Educational Team

Addressing Strengths:

Scrutinize each subject Jerry is taking and determine if there are ways to differentiate his learning experiences through content extension, adding depth and complexity, and by adjusting the instructional pace so that he doesn't get bored. Mathematics is an area of strength for Jerry, so attention should be given to ensuring the appropriate instructional level.

Investigate a variety of course options with Jerry for the rest of his high school career, such as accelerated curriculum, advanced placement, online courses, internships, college courses, etc. College planning should be done early with Jerry to be certain that the appropriate university is selected and that necessary classes have been taken for admissions requirements.

Explore some mentoring options for Jerry, such as deaf role models and math experts.

Addressing Challenges:

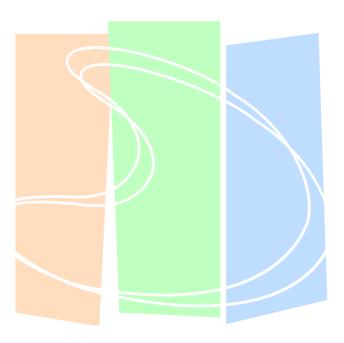
Use the Colorado Communication Plan to its fullest extent in planning Jerry's educational options. See CDE Fast Facts about the Communication Plan at http://www.cde.state.co.us/cdesped/download/pdf/FF-DHH_Communication_Plan.pdf. Be creative while thinking of access to his full school day and co- or extra-curricular opportunities rather than simply thinking of his grades or other smaller aspects of his educational experience.

Even though Jerry appears to be doing well at a surface level, it is still advisable to ask him how he thinks it is going and look at providing some common accommodations. Often students who are deaf or hard of hearing and bright figure out ways to accommodate themselves, but these accommodations are sometimes not very efficient. Simply needing to be visually aware of everything going on and not being able to use your hearing to clue you in to pay attention can be very fatiguing. The educational team should also check on the amount of time Jerry is spending on homework compared to his peers. It might also be helpful to have a private conversation with Jerry about what works well for him in his classes and what doesn't. Then this information can be used to help teachers know what approaches work best for Jerry. These pieces of information can be compiled and used to custom-build a set of accommodations that will help him thrive. One accommodation checklist that many people use in Colorado can be found at the Hands & Voices Web site at http://www.handsandvoices.org/resources/pubs/iep_cklist.htm.

Consider ways to support Jerry's social growth and peer interactions both in and out of school; discuss ways to teach general educators and peers sign language over time so they can directly and more fully communicate with Jerry. Conduct inservice training for all of the general educators (and other school staff) about hearing loss and how best to communicate, change the pace of instruction and activities, and provide visual support of instruction. For example, the team should discuss ways to adjust group projects and discussions so Jerry has access. Perhaps

Jerry would like to plan and/or conduct some or all of this training with the teacher of the deaf and/or one of his general education teachers. Ask Jerry if he would like to join a school team and help him plan for joining one at the next opportunity. Be sure the coaches receive basic inservice and communication information as well as tips for successfully communicating with or without an interpreter.

Consult a technology expert to determine what other technology options there might be for Jerry. Using an interpreter can work well in some classes, but sometimes it can be limiting. Just as hearing something doesn't necessarily mean understanding it, seeing an interpreter sign something doesn't necessarily mean knowing it. Many college students who are deaf or hard of hearing use Computer-Assisted Notetaking (CAN) or some kind of voice recognition software. Therefore, not only do students get the full benefit of what's being said during class, but they also have the copy of the "transcript" later so they can refer to it. It is a good idea for high school students to try out various access options prior to attending college. Someone on the educational team (maybe Jerry?) should contact National Technical Institute of the Deaf (NTID) right away for suggestions that will help him prepare for college, whether it is working on academic content knowledge, skill development in the use of technology, or other access skills.



Glossary of Terms

Glossary of Terms

Accommodations

Instructional and/or behavioral strategies that, when implemented, provide students with access to the curriculum. Accommodations do not change the content of the curriculum being taught. Rather, they change how the content is presented and/or how a student demonstrates mastery.

Examples: Shortened assignments, taped books, preferred seating, adapted keyboard, specialized software, oral test, providing copies of notes during a lecture, providing extra time, and teacher-read directions.

Interventions

The systematic and explicit instruction provided to accelerate growth in an area of identified need. Interventions are provided by special, gifted, and general educators, and are based on training, not titles. They are designed to improve performance relative to a specific, measurable goal. Interventions are based on valid information about current performance and realistic implementation, and include ongoing student progress monitoring.

Examples: Social skills training, multi-sensory reading, Knowing Mathematics, advanced classes, competitions or advanced clubs, mentorship, early entrance, radical acceleration.

Modifications

Changes made to curriculum expectations in order to meet the needs of the student. Modifications are made when the expectations are beyond the student's level of ability. Modifications may be minimal or very complex, depending on student performance. Modification must be clearly acknowledged in the IEP.

Examples: Student is involved in same theme/unit but provided with different task and expectations or withdrawal for specific skills; student is included in same activity but expectations and materials are individualized.

Multi-Tiered Model

Providing differing levels of intensity (i.e., Universal [Tier I], Targeted [Tier II], Intensive [Tier III]) based upon student responsiveness to intervention, with ongoing progress monitoring and focused assessment.

Problem-Solving Process

The problem-solving process is an interdisciplinary, collaborative team process which is based on a multi-tiered model and includes data-driven decision making, parent/school partnerships, progress monitoring, focused assessment, flexible service delivery, and research-based interventions.

Problem-Solving Team

A collaborative team (which includes parents and general, gifted, and special educators) that meets to evaluate student data and to plan and monitor prescribed interventions.

Progress Monitoring

Progress monitoring is the ongoing process that involves collecting and analyzing data to determine student progress toward specific skills or general outcomes and academic achievement. Progress monitoring generates the useful data for making instructional decisions based on the review and analysis of student data. Monitoring student progress, through collection and analysis of data, is an effective way to determine if the instruction being delivered is meeting the needs of the student.

Tier I (Universal) Intervention

Tier I Interventions are those provided to all students in the classroom, regardless of individual needs. These may be research-based, but are not necessarily prescriptive.

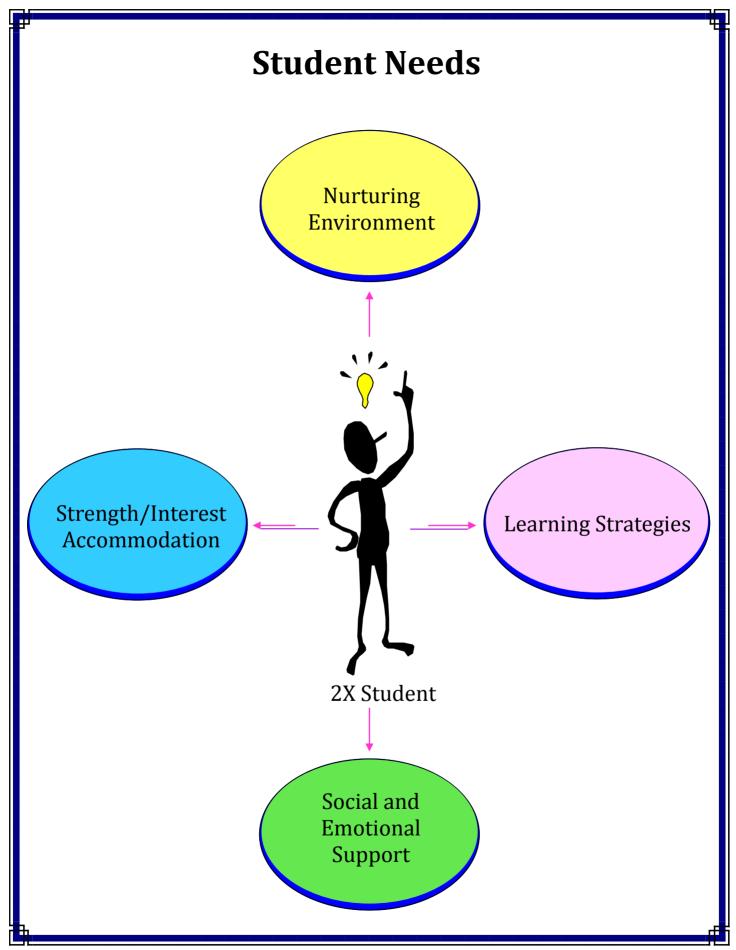
Tier II (Targeted) Intervention

Tier II Interventions are to be implemented when assessment indicates that a student is not making adequate gains from universal instruction alone. They are generally smaller group interventions designed to meet the specific needs of a student and his/her peers with similar needs.

Tier III (Intensive) Intervention

Tier III Interventions are those which offer a student highly individualized instruction in an area of assessed need. Although the programs or strategies may be similar to those offered at Tier II, the intervention is reclassified as "intensive" if it is individualized to meet the needs of a particular student and the duration and/or intensity of the intervention is increased to accelerate student response.

Workbook



S - Student Strengths	C - Student Challenges	Strengths	Challenges/Concerns
Cognitive Processing/Gen Visual Processing Auditory Processing Sequential/Rational Processing Processing Sequential Holistic Processing Speed Attention Memory Executive Functioning Organization Other	ocessing		
Specific Academic Reading Reading Fluency Writing Writing Fluency Math Math Fluency	Science Social Studies Other		
Creativity Creative Thinking Creative Productivity Creative Problem-Solvin Risk-Taking Other	ng		
Visual, Spatial, Performing Visual Spatial Musical/Rhythmic Bodily/Kinesthetic Other	g Arts		
Physical/Psychomotor Sensory Integration Hearing Vision ADD	ADHD Bodily/Kinesthetic Athletics Other		
Interpersonal/Leadership Communicating Understanding Others Peer Relations Self-Advocacy Other			
Intrapersonal/Social/Emo Understanding Self Introspection/Reflectio Perfectionism Coping Resiliency Behavioral Issues Other			
Interests/Passions			

Strength-/Interest-Based	Accommodations to	Explicit Instruction: Compensatory Strategies	Explicit Instruction:
Accommodations	Access Learning	Compensatory Strategies	Intervention/Remediation

S - Student Strengths	C - Student Challenges	Strengths	Challenges/Concerns
Cognitive Processing/Gen Visual Processing Auditory Processing Sequential/Rational Processing Processing Sequential Holistic Processing Speed Attention Memory Executive Functioning Organization Other	ocessing		
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Interests/Passions			

Strength-/Interest-Based	Accommodations to	Explicit Instruction:	Explicit Instruction: Intervention/Remediation
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S - Student Strengths (C - Student Challenges	Strengths	Challenges/Concerns
Cognitive Processing/General Visual Processing Auditory Processing Sequential/Rational Process Conceptual Holistic Process Processing Speed Attention Memory Executive Functioning Organization Other	sing		
Reading Fluency	Science Social Studies Other		
Creativity Creative Thinking Creative Productivity Creative Problem-Solving Risk-Taking Other			
Visual, Spatial, Performing Ar Visual Spatial Musical/Rhythmic Bodily/Kinesthetic Other	rts		
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Interpersonal/Leadership Communicating Understanding Others Peer Relations Self-Advocacy Other			
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Interests/Passions			

Strength-/Interest-Based	Accommodations to	Explicit Instruction: Compensatory Strategies	Explicit Instruction:
Accommodations	Access Learning	Compensatory Strategies	Intervention/Remediation

Profile Information Needed

Instructions:

1.	Think of a	student at your	school	l who is either:
----	------------	-----------------	--------	------------------

- a) already identified as twice-exceptional;
- b) identified as gifted but is struggling in one or more areas;
- c) identified as an exceptional learner and who demonstrates extraordinary strengths in one or more areas; or
- d) not identified for either exceptionality, but seems to "fit" the description.

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- a) Student's age/grade and any important background information.
- b) Is the student identified for twice-exceptional, gifted, special education, or 504 services?
- c) What are the student's strengths? Please be as detailed as possible.

- d) What are the student's interests? Please be as detailed as possible.
- e) What are the student's challenges? Please be as detailed as possible.

f) What are the student's social and emotional needs?

WISC

Verbal S.S. %tile Performance S.S. %tile

Information Picture Completion

Similarities Coding

Arithmetic Picture Arrangement

Vocabulary Block Design

Comprehension Object Assembly

Digit Span Symbol Search

Verbal Score Verbal Comprehension

Performance Score Perceptual Organization

Full Scale Score Working Memory

Processing Speed Index

Woodcock-Johnson Test of Achievement S.S. %tile

Broad Reading

Letter/Word Identification

Reading Fluency

Passage Comprehension

Broad Writing

Spelling

Writing Fluency

Writing Samples

Broad Math

Calculation

Math Fluency

Applied Problems

Profile Information Needed

Instructions:

1.	Think of a	student at your	school	l who is either:
----	------------	-----------------	--------	------------------

- a) already identified as twice-exceptional;
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- c) identified as an exceptional learner and who demonstrates extraordinary strengths in one or more areas; or
- d) not identified for either exceptionality, but seems to "fit" the description.

2.	Gather	the	follov	ving	inform	ation	on th	is stud	lent:
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- a) Student's age/grade and any important background information.
- b) Is the student identified for twice-exceptional, gifted, special education, or 504 services?
- c) What are the student's strengths? Please be as detailed as possible.

- d) What are the student's interests? Please be as detailed as possible.
- e) What are the student's challenges? Please be as detailed as possible.

f) What are the student's social and emotional needs?

WISC

Verbal S.S. %tile Performance S.S. %tile

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Processing Speed Index

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Letter/Word Identification

Reading Fluency

Passage Comprehension

Broad Writing

Spelling

Writing Fluency

Writing Samples

Broad Math

Calculation

Math Fluency

Applied Problems

Profile Information Needed

Instructions:

- 1. Think of a student at your school who is either:
 - a) already identified as twice-exceptional;
 - b) identified as gifted but is struggling in one or more areas;
 - c) identified as an exceptional learner and who demonstrates extraordinary strengths in one or more areas; or
 - d) not identified for either exceptionality, but seems to "fit" the description.
- 2. Gather the following information on this student:
 - a) Student's age/grade and any important background information.
 - b) Is the student identified for twice-exceptional, gifted, special education, or 504 services?
 - c) What are the student's strengths? Please be as detailed as possible.
 - d) What are the student's interests? Please be as detailed as possible.
 - e) What are the student's challenges? Please be as detailed as possible.

f) What are the student's social and emotional needs?

WISC

Verbal S.S. %tile Performance S.S. %tile

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Broad Reading

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Passage Comprehension

Broad Writing

Spelling

Writing Fluency

Writing Samples

Broad Math

Calculation

Math Fluency

Applied Problems

Twice-Exceptional Problem-Solving Plan

Concern						
Strength						
	Intervention	Interventionist	Frequency and Duration	Student/Teacher Ratio	How Progress Will Be Monitored	Materials Needed

Twice-Exceptional Problem-Solving Plan

|--|

Twice-Exceptional Problem-Solving Plan

Concern						
Strength						
	Intervention	Interventionist	Frequency and Duration	Student/Teacher Ratio	How Progress Will Be Monitored	Materials Needed

Twice-Exceptional Strategies Plan

Name:	Grade:		
	School:		
Strengths:	Interests:	Challenges:	
Strength-/Interest-Based Accomm	<u>l</u> 10dations		
Accommodations to Access Learni	ng		
Explicit Instruction: Compensator	y Strategies		
Explicit Instruction: Intervention/	Remediation		

Twice-Exceptional Strategies Plan

Name:		Grade:		
School:				
Strengths:	Interests:	Challenges:		
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Strength-/Interest-Based Accomm	odations			
Accommodations to Access Learnin	ng			
Explicit Instruction: Compensatory	y Strategies			
Explicit Instruction: Intervention/	Remediation			

Twice-Exceptional Strategies Plan

Name:		Grade:		
School:		Date:		
Strengths:	Interests:	Challenges:		
Strength-/Interest-Based Accomm	nodations			
Accommodations to Access Learni	ng			
Explicit Instruction: Compensator	y Strategies			
Explicit Instruction: Intervention/	Remediation			

Annotated Bibliography

Twice-Exceptional Annotated Bibliography

Baum, S.M. & Owen, S.V. (2004). *To Be Gifted & Learning Disabled: Strategies for Helping Bright Students With LD, ADHD, and More.* Mansfield, Conn: Creative Learning Press, Inc.

Part I reviews the unique characteristics of gifted, learning-disabled (GLD) children and provides background information for understanding the GLD child. The authors describe pioneering studies of GLD students and use those results to forge a clearer approach to educational intervention. Finally, the authors examine the confusion in diagnoses between LD and ADHD, especially in gifted children.

Part II discusses contemporary psychological theory and research that leads to educational applications for GLD students.

Part III provides strategies for meeting needs for effective learning, which includes guidelines for developing a comprehensive individual education plan that assures gifted students with disabilities a free appropriate public education (FAPE); effective strategies for identifying GLD students; ideas for programs that nurture gifts in students with gifts and disabilities; curricular strategies, modifications, accommodations, and compensation strategies that enhance the learning and self-efficacy of the students; and finally, strategies for meeting the social and emotional needs of students with gifts and disabilities. This second edition has three new chapters: self-regulations, developing comprehensive individual educational programs, and sources of support, as well as expanded chapters on classroom practices.

Benito, Y. (2003). Intellectual Giftedness and Associated Disorders: Separation Anxiety Disorders or School Phobia. *Gifted and Talented International*, *18*(1), 27-35.

Although a great amount of literature about the definition and education of gifted students exists, information about gifted students with associated disorders is not so abundant. The author uses case studies to show how separation anxiety disorder affects gifted children. He poses the question, "Is the child afraid of going to school or is there a fear that she would be unable to adapt as a gifted child? Is the child afraid of being separated from her parents or does she suffer from anxiety at the thought of new responsibilities?"

Bisland, A. (2004). Using Learning-Strategies Instruction With Students Who Are Gifted and Learning Disabled. *Gifted Child Today*, 7(3), 52-58.

Explores current policies and practices concerning the definition, identification, and educational needs of students who are both gifted and learning disabled. Recommendations stress the need for less rigid definitions and cutoff scores for program eligibility and the provision of a variety of settings and services.

Students who are gifted and learning disabled have unique needs that must be met through the education system. Special education teachers, classroom teachers, and gifted teachers should be aware of the unique characteristics of this population and know strategies to advance their learning.

Burrows, E. L. & Wagner, S. J. (2004). *Understanding Asperger's Syndrome: Fast Facts — A Guide for Teachers and Educators to Address the Needs of the Student.* Austin, TX: Future Horizons Inc.

When there is a child with Asperger's Syndrome in your life, questions about the disorder seem to abound. This booklet's easy-to-read layout makes it a quick reference for teachers and

parents. It provides tips on how to recognize Asperger's Syndrome and offers suggestions on how to create a successful learning environment. It addresses bullying, behavior modification, teaching strategies, and much more.

Flint, L. (2001). Challenges of Identifying and Serving Gifted Children With ADHD. *Teaching Exceptional Children*, 33(4), 62-69.

This article describes the special situations and needs of three children — Tony, Mikey, and Gina. As you read the first part of the article, consider suggestions for interventions and what might happen in the classroom. The author describes what others have to say about working with children who are gifted and have attentional difficulties.

Hartnett, D.N., Nelson, J.M. & Rinn, A.N. (2004). Gifted or ADHD? The Possibilities of Misdiagnosis. *Roeper Review*, 26(2), 73-76.

This research provides empirical support for the possibility of misdiagnosis of giftedness and Attention Deficit Hyperactivity Disorder (ADHD). Forty-four graduate students enrolled in a school counseling program acted as participants. Participants were given one of two forms, both of which provided a hypothetical case study of a young boy and then asked for a diagnosis. Implications for educators and graduate level counseling and psychology programs are provided.

Heller Korin, E.S. (2006). *Asperger Syndrome: An Owner's Manual. What You, Your Parents and Your Teachers Need to Know.* Shawnee Mission, KS: Autism Asperger Publishing Co.

This interactive workbook is designed to help young people, approximately 5th to 8th grades, develop their Personal Profile. By learning to identify their strengths and challenges, they are better able to participate in developing meaningful interventions and future plans, including playing an effective role in their own IEP meetings.

Hishinuma, E.S. & Nishimura, S.T. (2000). Parent Attitudes on the Importance and Success of Integrated Self-Contained Services for Students Who Are Gifted, Learning Disabled, and Gifted/Learning Disabled. *Roeper Review, 22*(4), 241-250.

This study reported on an assessment of parent attitudes of services provided by a specialized school in which the majority of the students were gifted, learning disabled (LD), or both. The findings supported the need for specialized and integrated services for students who are gifted, LD, and gifted/LD. The description of this particular specialized school provided a starting point for discussion on comprehensive and integrated programs to meet the needs of these populations.

Karnes, F. (2004). *Appropriate Practices for Screening, Identifying, and Instructing Gifted/Disabled Youth.* Hattiesburg, MS: University of Southern Mississippi.

This manual promotes appropriate practices for screening, identifying, and instructing gifted/disabled youth. Throughout the manual, children who are both gifted and disabled are referred to as twice-exceptional. Each chapter is the review of literature of appropriate practices for screening, identifying, and instructing gifted/disabled. In this manual, the twice-exceptional include gifted/autistic students, gifted/deaf-blind students, gifted/deaf and gifted/hearing-impaired students, gifted/developmentally delayed students, gifted/emotional-behavioral disability students, gifted/multi-disabled students, gifted/physically or orthopedically impaired students, gifted/specific learning disabled students, gifted/speech or language impaired students, gifted/traumatic brain injured students, and gifted/visually impaired students.

Despite these specific definitions, Karnes maintains that it remains difficult to screen, identify, and instruct gifted/disabled students. Appropriate time, effort, and planning must be spent to satisfy their needs. This manual is used in the school districts for teachers of the gifted, regular classroom teachers, special education coordinators, and parents.

Karnes, F.A., Shaunessy, E. & Bisland, A. (2004). Gifted Students With Disabilities: Are We Finding Them? *Gifted Child Today*, *27*(4), 16-21.

This article reports the results of a study to determine the number of gifted students with disabilities identified and served in gifted education programs in the state of Mississippi. The results of the study indicate that few gifted students with disabilities in Mississippi have been identified. To address this situation the author suggests that more emphasis may be needed in training teachers of the gifted and regular classroom teachers of the characteristics of gifted students with disabilities, a suggestion also found in the literature (Cline & Schwartz, 1999).

Kay, K. (2000). *Uniquely Gifted: Identifying and Meeting the Needs of Twice-Exceptional Students*. Gilsum, NH: Avocus Publishing, Inc.

The 32 readings in this collection discuss the needs of children who are both gifted and have special needs such as disability. The readings are grouped into four sections. Section 1, "Family Matters: Perspectives from Family Members," includes the personal viewpoints of individuals who are themselves twice-exceptional or have a family member who is twice-exceptional. Section 2 is "Teaching Strategies: Learning and Leadership." This section addresses the special problems of placement and instructional needs of this population. Section 3 is "Research and Theory: Discovering Possibilities," and Section 4 is "Administrative Options: Working Together," which discusses a variety of different services, delivery systems, and programmatic options for the twice-exceptional child. The two appendices contain a list of Internet resources and an explanation of the Autonomous Learner Model.

Little, C. (2002). Which Is It? Asperger's Syndrome or Giftedness? Defining the Differences. *Gifted Child Today*, *25*(1), 58-63.

This article clarifies what Asperger's Syndrome is and how it can seemingly mirror certain gifted behaviors. The author suggests intervention strategies for this twice-exceptional learner.

McConnell, K. & Ryser, G. R. (2005). *Practical Ideas That Really Work for Students With Asperger Syndrome.* Austin, TX: PRO-ED, Inc.

This book is for educators and other school-based professionals who work with students with Asperger Syndrome or high-functioning autism. This resource provides an assessment system and set of intervention ideas for students who are identified or exhibit many of the behaviors associated with Asperger Syndrome. The materials are intended for use with students in kindergarten through Grade 12 and include an evaluation form with a rating scale and ideas matrix and a resource manual.

Neihart, M. (2000). Gifted Children With Asperger's Syndrome. *Gifted Child Quarterly*, 44(4), 222-230. This author maintains that gifted children with Asperger's Syndrome may not be identified because their unusual behaviors may be wrongly attributed to either their giftedness or to a learning disability. Ways in which the syndrome might be missed and guidelines for differentiating characteristics of giftedness from Asperger's characteristics are discussed.

Nielsen, E.M., Higgins, L.D., Hammond, A.E. & Williams, R.A. (1993). Gifted Children With Disabilities. *Gifted Child Today (GCT)*, *16*(5), 9-12.

The Twice-Exceptional Child Project is a collaborative project of the Albuquerque (New Mexico) Public School system and the University of New Mexico to serve students who are gifted and have a mild-to-moderate handicapping condition. This article describes the project's training components, screening and identification procedures, curriculum, and technology interventions.

Reis, S.M., McGuire, J.M. & Neu, T.W. (2000). Compensation Strategies Used by High-Ability Students With Learning Disabilities Who Succeed in College. *Gifted Child Quarterly*, 44(2), 123-134.

This study reports the results of how 12 high-ability students with learning disabilities succeeded in post-secondary academic environments. Extensive interviews with these adults provided examples of the problems they faced as high-ability students with learning disabilities. The compensation strategies used by academically gifted students who were successful include: study strategies; cognitive learning strategies; compensatory supports; environmental accommodations; opportunities for counseling; self-advocacy; and the development of an individual plan incorporating a focus on metacognition and executive functions.

Rizza, M.G. & Morrison, W.F. (2003). Uncovering Stereotypes and Identifying Characteristics of Gifted Students and Students With Emotional/Behavioral Disabilities. *Roeper Review*, *25*(2), 73-77.

The authors report the results of an instrument that asked pre-service and in-service teachers to categorize a set of characteristics and behaviors according to whether each described a student identified with an Emotional/Behavior Disability (EBD) who is gifted, both, or neither. Results of this survey revealed stereotypical thinking in the identification of characteristics of the student labeled EBD. The degree of teachers' training and experience also played a role in the understanding and categorization of the characteristics/behaviors used in the survey.

Sillman, W. (2008). When Your Child Has... Asperger's Syndrome. Avon, MA: Adams Media.

You've heard about cases of Asperger's, or perhaps have known a child with the syndrome. Now you've learned that *your* child has Asperger's — what do you do? *When Your Child Has... Asperger's Syndrome* defines the syndrome in clear and complete terms that will help you help your child. Now, you can understand your child's needs and help him or her lead a happy and successful life.

Silverman, S. M. & Weinfeld W. (2007). *School Success for Kids With Asperger's Syndrome.* Waco, TX: Prufrock Press.

This book covers topics such as recognizing and diagnosing Asperger's Syndrome, addressing the needs of students with Asperger's, implementing successful practices in the classroom, working with the school system, and providing interventions in the home to help develop needed skills. Its engaging tone and comprehensive scope make it both readable and informative.

Smutny, J.F. (2001). Meeting Needs of Gifted Underachievers Individually. *Gifted Education Communicator*, 32(3), 44-46.

The author reviews Whitmore's definition for underachievement and examines the most promising solutions to underachievement.

Strop, J. & Goldman, D. (2002). The Affective Side: Emotional Issues of Twice-Exceptional Students. *Understanding Our Gifted*, Winter, 28-29.

This article looks at the dilemma faced by twice-exceptional students in balancing the expectations of being gifted while trying to overcome learning challenges. Consequently, twice-exceptional students need a strong support group to assist them with several key emotional issues that may impede their academic achievement: anger; fear of failure; a strong need to control; low self-esteem; and sometimes even fear of success.

Van Tassel-Baska, J. & Baska, A. (2004). Working With Gifted Students With Special Needs: A Curriculum and Program Challenge. *Gifted Education Communicator*, *35*(2), 4-7 & 27.

This article addresses the realities of educating twice-exceptional or thrice-exceptional children, and the need to tailor the educational process. The author states that every generalization about giftedness must be filtered through the disabilities. Table I "Comparison of Needs and Responses" examines the needs of gifted and the needs of the LD/ADD.

Webb, J. (2000). *Misdiagnosis and Dual Diagnosis of Gifted Children*. Paper presented at the American Psychological Association Annual Convention, Washington, D.C., August 7, 2000.

This presentation is about gifted children and adults who are at particular psychological risk due to both internal characteristics and situational factors. These internal and situational factors can lead to interpersonal and psychological difficulties for gifted children and subsequently to misdiagnoses and inadequate treatment.

Welton, J., Newson, E. & Telford, J. (2003). *Can I Tell You About Asperger Syndrome?: A Guide for Friends and Family*. London, England: Jessica Kingsley Publishers Ltd.

Meet Adam — a young boy with AS. Adam invites young readers to learn about AS from his perspective. In this book, Adam helps children understand the difficulties faced by a child with AS: he tells them what AS is, what it feels like to have AS, and how they can help children with AS by understanding their differences and appreciating their many talents. This book is ideally suited for boys and girls between 7 and 15 years old and also serves as an excellent starting point for family and classroom discussions.



Web Site Resources and Models Cited

Web Site Resources

Association for the Education of Gifted Underachieving Students, http://www.aegus1.org

Center for Gifted Education, College of William and Mary, Williamsburg, VA, <www.cfge.wm.edu>

Center for Gifted Education & Talent Development, <www.gifted.uconn.edu/>

Colorado Mathematical Olympiad, Colorado Springs, CO, <www.uccs.edu/~olympiad/index.htm>

The Council for Exceptional Children, <www.cec.sped.org>

Destination ImagiNation Program, Glassboro, NJ, <www.destinationimagination.org>

Future Problem Solving Program, Lexington, KY, <www.fpsp.org>

Great Books Foundation, <www.greatbooks.org>

Hoagies' Gifted Education Page, Gifted Children with Special Needs, http://www.hoagiesgifted.org/

Inspiration Software, Inc., Portland, OR, <www.inspiration.com>

International Mathematical Olympiad, <www.imo.math.ca>

Learning Disabilities Online, <www.LDonline.org>

The National Foundation for Gifted and Creative Children, <www.nfgcc.org>

National Research Center on the Gifted and Talented, <www.gifted.uconn.edu/nrcgt.html>

Models Cited

Autonomous Learner Model for Optimizing Learning, by George Betts and Jolene Kercher ALPS Publishing, Greeley, CO, <www.alpspublishing.com>

Enrichment Triad Model, by Joseph S. Renzulli, Creative Learning Press.



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