Section 10 – At-Risk

Many factors put a student at-risk, including cultural differences, handicaps, socioeconomic status, gender, and others. Identification procedures and programming, as well as teacher choice, are school related issues that can put students at risk of underachieving

Section Includes:

- Twice Exceptionality (NAGE Position Paper)

- Gifted Students With Disabling Conditions

- ADHD and Children Who Are Gifted

- Attention Deficit Disorders and Gifted Students

- Working with Diverse Learners and School Staff in a Multi-cultural Society

- Communicating with Culturally Diverse Parents

- Meeting the Needs of Gifted and Talented Minority Language Students

- Minorities in Science and Math

- FAQ's: GT and Underachievement, Diversity

- Helping Underachieving Boys Read Well and Often

- Appropriate Education for Gifted GLBT Students (NAGE Position Paper)

- Resources for Autism and other Disabilities

TWICE-EXCEPTIONALITY

Psychologists who work in the area of special education sometimes refer to students with two disabilities as having a dual diagnosis, which may be considered to be twice-exceptional. In the field of gifted education, the more commonly used term for a gifted student with a co-occurring disability is "twice-exceptional learner". This simple definition belies the complexity that underlies the multiple issues associated with twice-exceptionality. Whereas the concept itself is becoming more well-known both in and out of gifted education, professionals still are unsure of the prevalence of twice-exceptionality because no federal agency gathers base-rate data for this group of students. Estimates made through various sources, such as the U.S. Department of Education, suggest that there are approximately 360,000 twice-exceptional students in America's schools (National Education Association, 2006), making the call for awareness and understanding about twice-exceptionality critical for educators nationwide. This position paper is intended for all individuals who wish to know more about this important group of gifted learners so that their multifaceted educational and personal needs can be met and there is recognition that giftedness does not preclude the presence of a disability or vice versa.

In 1972, The Marland Report (U.S. Department of Health, Education, and Welfare) brought giftedness to the educational forefront; yet, there were no legal mandates associated with the Marland Report. In 1975, another federal initiative, Public Law 94-142, (re-named Individuals with Disabilities Education Act [IDEA] in 1990), appeared on the educational landscape. A major accomplishment of this legislation was that it ensured that students with disabilities receive a free and appropriate public education (FAPE). Current IDEA legislation recognizes 13 disability categories: learning disability, speech/language impairment, mental retardation, emotional disturbance, hearing impairment, visual impairment, orthopedic impairment, other heath impairment, autism, traumatic brain injury, multiple disabilities, and deaf-blindness (U.S. Department of Education, 2007). Among these 13 categories, this position paper will focus on three identified exceptionalities among gifted students with disabilities: Specific Learning Disabilities (SLD); Autism Spectrum Disorder (ASD); and Other Health Impairments (OHI), which includes Attention Deficit Hyperactivity Disorder (ADHD). Those who are interested in learning more about the other 10 disability categories can learn more by visiting the U.S. Department of Education's website: www.ed.gov.

Despite the fact that the Marland Report and IDEA were federal initiatives and both recognized that students were individuals with cognitive and academic differences who needed individualized attention, they remained disconnected. This changed with the 2004 reauthorization of IDEA (IDEA-2004), which recognized through new regulations, that children who are gifted and talented may also have disabilities. This may seem to have been a move in a positive direction for twice-exceptional students; however, there was another important change in IDEA-2004 that focuses on the way in which all students could be identified for specific learning disabilities and has the potential to negatively impact twice-exceptional students.

The largest percentage of students (approximately 50% of all students with disabilities) is found in the category known as Specific Learning Disabilities (SLD). Identification of SLD traditionally relied upon a significant discrepancy between a student's level of ability and achievement. This resulted in strong support to expand the identification of SLD procedures to include a procedure known as Response to Intervention (RtI), which was more recently introduced to the field of specific learning disabilities (Fuchs, Mock, Morgan & Young, 2003) and perceived as a correction to the "wait to fail" dilemma.

Briefly, the RtI approach to identifying learning difficulties is based upon an assumption that the classroom curriculum is broadly appropriate and that a student's progress is monitored through daily class work. If the student is not making progress, then it is because an adjustment with the pedagogical process

is needed. A special education evaluation that includes a comprehensive evaluation would be necessary only after classroom-based interventions are not successful (Fuchs et al., 2003). This approach is beneficial for average or below average students because it eliminates the "wait to fail" process that resulted when students had to demonstrate a severe discrepancy between ability and achievement to obtain services. Furthermore, RtI is believed to offer an advantage for average or below-average students because they receive interventions, whereas they may never qualify for assistance under an ability-achievement discrepancy model. Likewise, gifted students who do **not** have a learning disability may benefit from the application of RtI to programming because an individualized approach to measurement of success within the curriculum could identify areas for academic acceleration and or enrichment.

The major flaw in the RtI approach is immediately apparent and is related to two inaccurate assumptions. The first wrong assumption is that the "broadly appropriate" classroom curriculum is a good match for a gifted student. The second wrong assumption is that the definition of failure for a gifted child is the same as the definition of failure for a child with average or below-average cognitive ability. The gifted student with a learning disability often times goes unnoticed in the classroom because performance with a broadly appropriate curriculum appears satisfactory to most educators. On the one hand, the "adequate" performance is the result of high cognitive ability, which allows for the student to compensate in a less-than challenging curriculum. On the other hand, the high cognitive ability is not fully realized because the disability prevents the student from fully expressing his or her talents (National Education Association, 2006; Silverman, 2003).

Failure for a student who has cognitive ability that is one or more standard deviations above average is often missed because his "average" classroom performance appears to be "appropriate"; yet, in reality, the average performance actually represents a "failure to thrive." The level at which a student is expected to "thrive" is best determined through the process of a comprehensive evaluation that includes a cognitive ability test (Assouline, Foley Nicpon, & Whiteman, in revision). If an individualized intelligence test is not available, then using an excellent group ability test can also be helpful as an initial indicator of cognitive ability if it produces an individualized profile that can reveal the possibility of learning difficulties.

A second category identified through IDEA is autism spectrum disorder (ASD), which is a developmental disability that is characterized by severe communication difficulties, social impairments, and behavioral difficulties and intensities. The rate at which ASD is diagnosed across the nation has grown substantially in the past 20 years, and prevalence varies by region (i.e., anywhere from 1 out of 81 children to 1 out of 423 children; Individuals with Disabilities Act Data, 2007). Increasingly, scholars and clinicians are recognizing that students with this developmental disability can also be cognitively and academically gifted. In fact, some broad characteristics of highly gifted children overlap with characteristics of students with ASD (e.g., focused interest on a topic). It is, therefore, crucial that a diagnosis only be made by a professional who is familiar with giftedness and ASD so that there is neither misdiagnosis, nor missed diagnosis (Neihart, 2008; Webb, Amend, Webb, Goerss, Beljan, & Olenchak, 2005).

As another example, determining whether a student who is demonstrating socialization problems such as difficulty making friends or engaging in conversation has these problems because he or she cannot find intellectual peers or because the student has ASD is accomplished only through a comprehensive evaluation. Such an evaluation must include an assessment of the student's cognitive and academic skills, social-emotional status, and adaptive behavior. Additionally, a psychologist should administer instruments developed specifically to determine the presence of ASD (Assouline, Foley Nicpon, & Doobay, 2009). Early identification is preferable as it facilitates the intervention process and increases the likelihood of improved functioning in various environments (National Research Council, 2001).

A third category identified through IDEA is Other Health Impairments, which represents a broad category that includes, among other disabilities, Attention Deficit Hyperactivity Disorder (ADHD). ADHD is characterized by inattentive and/or impulsive and hyperactive behaviors that cause significant impairment in functioning. Prevalence rate estimates are between 3 – 5% of the school age population (American Psychiatric Association, 2000). Therefore, even though ADHD is one of the more commonly diagnosed twice-exceptionalities, its prevalence is still relatively low. Similar to ASD, some characteristics of gifted learners overlap with characteristics of children with ADHD, which can complicate diagnostic accuracy (Baum, Olenchak, & Owen, 1998). For example, gifted students often show inattention symptoms in learning environments that are underchallenging, while students with ADHD typically show inattention symptoms regardless of the environment. More recent empirical research confirms that high-ability students can and do have diagnoses of ADHD, and that their school performance difficulties, behavioral presentation, and family history of an ADHD diagnosis is very similar to average ability students with ADHD (Antshel, et al., 2007). It is therefore critical that diagnosticians become aware of the characteristics of ADHD and how they can uniquely present among the gifted population (Kaufmann & Castellanos, 2000) in order to prevent missed diagnosis or misdiagnosis (Webb et al., 2005).

Best practice necessitates a comprehensive evaluation that includes as much information as possible about a student's cognitive and academic profiles, as well as information about the student's social-emotional and behavioral presentation. This means that educators should draw upon the multiple kinds of professional expertise available, including results from standardized tests, curriculum-based assessment scores, and completion of behavioral surveys and parent interviews, as well as formal observations, which are critical to making an accurate diagnosis and generating appropriate recommendations. Only a comprehensive evaluation can lay the groundwork necessary for creating an educational environment where the twice-exceptional student thrives in his or her areas of strength and receives appropriate accommodations for the disability. In searching for an accurate diagnosis for the student, parents and educators should seek professionals (e.g., psychiatrists, psychologists) who are, at a minimum, familiar with the diagnostic complexities involved in working with twice-exceptional learners so that misdiagnosis and missed diagnosis are avoided. Psychologists should be able to read and interpret unique patterns of test data so that they accurately identify and promote children's high abilities and talents. They also need to be attuned to the possibility that a student could have more than one diagnosis; for example, students with ASD in many cases struggle with written language to the extent that they have a co-morbid diagnosis of SLD. Qualifications to make a diagnosis of a SLD vary by state. Some states allow specially-trained educational consultants to make such a diagnosis; others require that a psychiatrist or psychologist make the diagnosis. With respect to ASD or ADHD, licensed mental health professionals have the necessary training to make accurate diagnoses.

For many years, educators in the field of gifted education have advocated that a disability does not preclude the presence of giftedness and, increasingly, researchers are generating evidence-based practices for working with twice-exceptional students. For example, Assouline, Foley Nicpon, and Huber (2006) provided suggestions for working with twice-exceptional students, three of which are listed below:
1. A review of student's school records can reveal a pattern of academic strengths and weaknesses that warrants further evaluation. Look specifically for evidence regarding talent areas and possible vulnerabilities. This requires a collaborative effort among regular, special, and gifted educators, as well as with special support personnel such as school psychologists or school counselors.
2. Social-emotional concerns for twice-exceptional students must be evaluated and developed as a focus of the educational plan to ensure students' positive adjustment and long-term success. Development of self-awareness of strengths and weaknesses is especially important to the academic success of a twice-exceptional student. Twice exceptional students will typically benefit from support groups, both inside and outside of the schools setting.

3. University-based talent searches offer subject-specific ways of discovering bright students who might otherwise be overlooked through traditional gifted and talented programs, especially programs that use a composite score to determine eligibility for gifted programming.

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References

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders*(4th ed., text rev.). Washington, DC: American Psychiatric Association.

Antshel, K. M., Faraone, S. V., Stallone, K., Nave, A., Kaufmann, F. A., Doyle, A., Fried, R.,Seidman, L., & Biderman, J. (2007). Is attention deficit hyperactivity disorder a valid diagnosis in the presence of high IQ? Results from the MGH longitudinal family studies of ADHD. *Journal of Child Psychology and Psychiatry, 48(7),* 687- 694.

Assouline, S. G., Foley Nicpon, M., & Doobay, A. Profoundly gifted girls and autism spectrum disorder: A psychometric case study comparison. *Gifted Child Quarterly.* Prepublished February 11, 2009; DOI: 10.1177/0016986208330506.

Assouline, S. G., Foley Nicpon, M., & Whiteman, C. (In review). Cognitive and psychosocial characteristics of gifted students with written language disorder.

Assouline, S. G., Foley Nipcon, M., & Huber, D. H. (2006). The impact of vulnerabilities and strengths on the academic experience of twice-exceptional students: A message to school counselors. *Professional School Counseling, 10*(1), 14-23.

Baum, S. M., Olenchak, F. R., & Owen, S. V. (1998). Gifted students with attention-deficits: Fact and/or fiction? Or, can we see the forest for the trees? *Gifted Child Quarterly, 42(2),* 96 - 104.

Fuchs, D., Mock, D., Morgan, P. L., & Young, C. L. (2003). Responsiveness-to-intervention: Definitions, evidence, and implications for the learning disabilities construct. *Learning Disabilities Research & Practice, 18*(3), 157 - 171. NASP Position Paper on Identification of Students with Specific Learning Disabilities http://www.nasponline.org/about_nasp/positionpapers/SLDPosition_2007.pdf

Kaufmann, F. A., & Castellanos, F. X. (2000). Attention-deficit/hyperactivity disorder in gifted students. In K. A. Heller, F. J. Monks, R. J. Sternberg, & R. F. Subotnik (Eds.). *International handbook of giftedness and talent* (2nd ed., pp. 621- 632). Amsterdam: Elsevier.

Individuals with Disabilities Act Data (2007). https://www.ideadata.org/PartBChildCount.asp

National Education Association (2006). *The twice-exceptional dilemma.* Washington, DC: Author.

National Research Council (Ed.). (2001). *Educating children with autism.* Washington, DC: National Academy Press.

Neihart, M. (2008). Identifying and providing services to twice-exceptional children. In S. Pfeiffer (Ed.). *Handbook of giftedness in children: Psycho-educational theory, research, and best practices.* New York: Springer.

Silverman, L. Gifted children with learning disabilities. (2003). In N. Colangelo & G.A. Davis (Eds). *Handbook of gifted education* (3rd ed., pp. 533 - 546). Needham, MA: Allyn and Bacon.

U. S. Department of Education, Elementary and Secondary Education Act (Public Law 107-110). http://www.ed.gov/policy/elsec/leg/esea02/107-110.pdf (retrieved 11/06/07).

U.S. Department of Education, Institute of Education Sciences, National Center for Special Education Research, National Longitudinal Transition Study. http://ies.ed.gov/ncser/pubs/20073006/tables/table_b1.asp (retrieved 12/10/08).

U.S. Department of Health, Education, and Welfare. (1972). *Education of the gifted and talented.* Washington, DC: Author.

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

Gifted Students With Disabling Conditions

Colleen Willard-Holt

Gifted students with disabling conditions remain a major group of underserved and understimulated youth (Cline, 1999). The focus on accommodations for their disabilities may preclude the recognition and development of their cognitive abilities. It is not unexpected, then, to find a significant discrepancy between the measured academic potential of these students and their actual performance in the classroom (Whitmore & Maker, 1985). In order for these children to reach their potential, it is imperative that their intellectual strengths be recognized and nurtured, at the same time as their disability is accommodated appropriately.

ASSESSMENT

Identification of giftedness in students who are disabled is problematic. The customary identification methods— tests and observational checklists— are inadequate, without major modification. Standard lists of characteristics of gifted students may be inadequate for unmasking hidden potential in children who have disabilities. Children whose hearing is impaired, for example, cannot respond to oral directions, and they may also lack the vocabulary which reflects the complexity of their thoughts. Children whose speech or language is impaired cannot respond to tests requiring verbal responses. Children whose vision is impaired may be unable to respond to certain performance measures, and although their vocabulary may be quite advanced, they may not understand the full meaning of the words they use (e.g., color words). Children with learning disabilities may use high-level vocabulary in speaking but be unable to express themselves in writing, or vice versa. In addition, limited life experiences due to impaired mobility may artificially lower scores (Whitmore & Maker, 1985). Since the population of gifted/disabled students is difficult to locate, they seldom are included in standardized test norming groups, adding to the problems of comparison.

In addition, gifted children with disabilities often use their intelligence to try to circumvent the disability. This may cause both exceptionalities to appear less extreme: the disability may appear less severe because the child is using the intellect to cope, while the efforts expended in that area may hinder other expressions of giftedness.

The following lists are intended to assist parents and teachers in recognizing intellectual giftedness in the presence of a disability.

CHARACTERISTICS OF GIFTED STUDENTS WITH SPECIFIC DISABILITIES

Gifted Students with Visual Impairment
- Fast rate of learning
- Superior memory
- Superior verbal communication skills and vocabulary
  - advanced problem-solving skills
  - Creative production or thought that may progress more slowly than sighted students in some academic areas
  - Ease in learning Braille
  - Great persistence
  - Motivation to know
  - Sometimes slower rate of cognitive development than sighted students
  - excellent ability to concentrate

(Whitmore & Maker, 1985)

Gifted Students with Physical Disabilities
- Development of compensatory skills

- Creativity in finding alternate ways of communicating and accomplishing tasks
- Impressive store of knowledge
- Advanced academic skills
- Superior memory
- Exceptional problem-solving skills
- Rapid grasp of ideas
- Ability to set and strive for long-term goals
- Greater maturity than age mates
- Good sense of humor
- Persistence, patience
- Motivation to achieve
- Curiosity, insight
- Self-criticism and perfectionism
- Cognitive development that may not be based on direct experience
- Possible difficulty with abstractions
- Possible limited achievement due to pace of work
  (Cline, 1999; Whitmore & Maker, 1985; Willard-Holt, 1994)

Gifted Students with Hearing Impairments
- Development of speech-reading skills without instruction
- Early reading ability
- Excellent memory
- Ability to function in the regular school setting
- Rapid grasp of ideas
- High reasoning ability
- Superior performance in school
- Wide range of interests
- Nontraditional ways of getting information
- Use of problem-solving skills in everyday situations
- Possibly on grade level
- Delays in concept attainment
- Self starters
- Good sense of humor
- Enjoyment of manipulating environment
- Intuition
- Ingenuity in solving problems
- Symbolic language abilities (different symbol system)
  (Cline, 1999; Whitmore & Maker, 1985)

Gifted Students with Learning Disabilities
- High abstract reasoning ability
- Good mathematical reasoning ability
- Keen visual memory, spatial skills
- Advanced vocabulary
- Sophisticated sense of humor
- Imaginative and creative
- Insightful
- Exceptional ability in geometry, science, arts, music
- Good problem-finding and -solving skills
- Difficulty with memorization, computation, phonics, and/or spelling
- Distractibility and/or disorganization

- Supersensitivity
- Perfectionism
- Grasp of metaphors, analogies, satire
- Comprehension of complex systems
- Unreasonable self expectations
- Often, failure to complete assignments
- Difficulties with sequential tasks
- Wide variety of interests
  (Baum, Owen, & Dixon, 1991; Silverman, 1989)

Research indicates that in many cases, a child is diagnosed with ADHD when in fact the child is gifted and reacting to an inappropriate curriculum (Webb & Latimer, 1993). The key to distinguishing between the two is the pervasiveness of the "acting out" behaviors. If the acting out is specific to certain situations, the child's behavior is more likely related to giftedness; whereas, if the behavior is consistent across all situations, the child's behavior is more likely related to ADHD. It is also possible for a child to be BOTH gifted and ADHD. The following lists highlight the similarities between giftedness and ADHD.

Characteristics of Gifted Students Who Are Bored
- Poor attention and daydreaming when bored
- Low tolerance for persistence on tasks that seem irrelevant
- Begin many projects, see few to completion
- Development of judgment lags behind intellectual growth
- Intensity may lead to power struggles with authorities
- High activity level; may need less sleep
- Difficulty restraining desire to talk; may be disruptive
- Question rules, customs, and traditions
- Lose work, forget homework, are disorganized
- May appear careless
- Highly sensitive to criticism
- Do not exhibit problem behaviors in all situations
- More consistent levels of performance at a fairly consistent pace
  (Cline, 1999; Webb & Latimer, 1993)

Characteristics of Students with ADHD
- Poorly sustained attention
- Diminished persistence on tasks not having immediate consequences
- Often shift from one uncompleted activity to another
- Impulsivity, poor delay of gratification
- Impaired adherence to commands to regulate or inhibit behavior in social contexts
- More active, restless than other children
- Often talk excessively
- Often interrupt or intrude on others (e.g., butt into games)
- Difficulty adhering to rules and regulations
- Often lose things necessary for tasks or activities at home or school
- May appear inattentive to details
- Highly sensitive to criticism
- Problem behaviors exist in all settings, but in some are more severe
- Variability in task performance and time used to accomplish tasks.
  (Barkley, 1990; Cline, 1999; Webb & Latimer, 1993)

Questions to Ask in Differentiating between Giftedness and ADHD

- Could the behaviors be responses to inappropriate placement, insufficient challenge, or lack of intellectual peers?
- Is the child able to concentrate when interested in the activity?
- Have any curricular modifications been made in an attempt to change inappropriate behaviors?
- Has the child been interviewed? What are his/her feelings about the behaviors?
- Does the child feel out of control? Do the parents perceive the child as being out of control?
- Do the behaviors occur at certain times of the day, during certain activities, with certain teachers or in certain environments?

IMPLICATIONS FOR STUDENTS WITH DUAL EXCEPTIONALITIES

Commitment to identifying and nurturing the gifts of students with disabilities implies specific changes in the way educators approach identification, instruction, and classroom dynamics.

Identification
- Include students with disabilities in initial screening phase.
- Be willing to accept nonconventional indicators of intellectual talent.
- Look beyond test scores.
- When applying cutoffs, bear in mind the depression of scores that may occur due to the disability.
- DO NOT aggregate subtest scores into a composite score.
- Compare with others who have similar disabilities.
- Weight more heavily characteristics that enable the child to effectively compensate for the disability.
- Weight more heavily areas of performance unaffected by the disability.
- Allow the child to participate in gifted programs on a trial basis.

Instruction
- Be aware of the powerful role of language; reduce communication limitations and develop alternative modes for thinking and communicating.
- Emphasize high-level abstract thinking, creativity, and a problem-solving approach.
- Have great expectations: these children often become successful as adults in fields requiring advanced education.
- Provide for individual pacing in areas of giftedness and disability.
- Provide challenging activities at an advanced level.
- Promote active inquiry, experimentation, and discussion.
- Promote self-direction.
- Offer options that enable students to use strengths and preferred ways of learning.
- Use intellectual strengths to develop coping strategies.
- Assist in strengthening the student's self concept.

Classroom Dynamics
- Discuss disabilities/capabilities and their implications with the class.
- Expect participation in all activities; strive for normal peer interactions.
- Facilitate acceptance; model and demand respect for all.
- Candidly answer peers' questions.
- Treat a child with a disability the same way a child without a disability is treated.
- Model celebration of individual differences.

Gifted students with disabilities must be provided with appropriate challenges. The personal and societal costs of not developing their potential cannot be overstated.

REFERENCES
Barkley, R.A. (1990). *Attention deficit hyperactivity disorder: A handbook for diagnosis and*

treatment. New York: Guilford Press.

Baum, S.M., Owen, S.V., & Dixon, J. (1991). *To be gifted & learning disabled.* Mansfield Center, CT: Creative Learning Press.

Cline, S., & Schwartz, D. (1999). *Diverse populations of gifted children.* NJ: Merrill.

Silverman, L.K. (1989). Invisible gifts, invisible handicaps. *Roeper Review,* 12(1), 37-42.

Thurlow, M.L., Elliott, J.L. & Ysseldyke, J.E. (1998). *Testing students with disabilities.* Thousand Oaks, CA: Corwin Press.

Webb, J.T. & Maker, C.J. (1993). *ADHD and children who are gifted.* ERIC EC Digest E522.

Whitmore, J.R., & Maker, C.J. (1985). *Intellectual giftedness in disabled persons.* Rockville, MD: Aspen.

Willard-Holt, C. (1994). *Recognizing talent: Cross-case study of two high potential students with cerebral palsy.* Storrs, CT: National Research Center on the Gifted/Talented.

Attention Deficit Disorders and Gifted Students: What Do We Really Know?

Felice Kaufmann
M. Layne Kalbfleisch
F. Xavier Castellanos

This monograph summarizes current scientific knowledge about Attention-Deficit/Hyperactivity Disorder (ADHD) in children and presents issues related to ADHD in gifted students. Causes, assessment, diagnosis, educational strategies and medical interventions are discussed. A range of perspectives, including behavioral, cognitive, and neurobiological, are applied to the interaction of ADHD and giftedness. Provisional recommendations for parents and teachers are provided along with directions for future research.

Recommendations

1. Be aware that ADHD and giftedness can co-exist.
2. Explore multiple perspectives in your pursuit of information about ADHD.
3. Remember that the most important criterion for diagnosing ADHD is the degree of impairment experienced by the child in two or more settings.
4. Utilize a multidisciplinary team to arrive at diagnoses and to develop comprehensive treatment plans.
5. Become familiar with a variety of educational and behavioral strategies to determine which combinations might be effective for the individual child.
6. Be cautious about promises of "quick-fixes"—whether behavioral, educational, or medical.
7. Be aware that individuals with ADHD have their greatest difficulties in the "output" stage of cognitive processing.
8. Determine whether shifting attention is a point of vulnerability for the student.
9. Model and support the process of "knowing thyself."
10. Advocate for and support systematic research into ADHD within the gifted population.

The full monograph can be read at www.gifted.uconn.edu.

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ADHD and Children Who Are Gifted

James T. Webb & Diane Latimer

Howard's teachers say he just isn't working up to his ability. He doesn't finish his assignments, or just puts down answers without showing his work; his handwriting and spelling are poor. He sits and fidgets in class, talks to others, and often disrupts class by interrupting others. He used to shout out the answers to the teachers' questions (they were usually right), but now he daydreams a lot and seems distracted. Does Howard have Attention Deficit Hyperactivity Disorder (ADHD), is he gifted, or both?

Frequently, bright children have been referred to psychologists or pediatricians because they exhibited certain behaviors (e.g., restlessness, inattention, impulsivity, high activity level, day-dreaming) commonly associated with a diagnosis of ADHD. Formally, the
Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R) (American
Psychiatric Association) lists 14 characteristics that may be found in children diagnosed as having ADHD. At least 8 of these characteristics must be present, the onset must be before age 7, and they must be present for at least six months.

DSM-III-R DIAGNOSTIC CRITERIA FOR ATTENTION-DEFICITHYPERACTIVITY DISORDER

Note: DSM-III-R Diagnostic Criteria for Attention-Deficit Hyperactivity Disorder reprinted with permission from the "Diagnostic and Statistical Manual of Mental Disorders," Third Edition, Revised, Washington, DC, American Psychiatric Association, 1987.

1. Often fidgets with hands or feet or squirms in seat (in adolescents may be limited to subjective feelings of restlessness).
2. Has difficulty remaining seated when required to.
3. Is easily distracted by extraneous stimuli.
4. Has difficulty awaiting turns in games or group situations.
5. Often blurts out answers to questions before they have been completed.
6. Has difficulty following through on instructions from others (not due to oppositional behavior or failure of comprehension).
7. Has difficulty sustaining attention in tasks or play activities.
8. Often shifts from one uncompleted activity to another.
9. Has difficulty playing quietly.
10. Often talks excessively.
11. Often interrupts or intrudes on others, e.g., butts into other people's games.
12. Often does not seem to listen to what is being said to him or her.
13. Often loses things necessary for tasks or activities at school or at home (e.g., toys, pencils, books).
14. Often engages in physically dangerous activities without considering possible consequences (not for the purpose of thrill-seeking), e.g., runs into street without looking.

Almost all of these behaviors, however, might be found in bright, talented, creative, gifted children. Until now, little attention has been given to the similarities and differences between the two groups, thus raising the potential for misidentification in both areas -- giftedness and ADHD.

Sometimes, professionals have diagnosed ADHD by simply listening to parent or teacher descriptions of the child's behaviors along with a brief observation of the child.
Other times, brief screening questionnaires are used, although these questionnaires only quantify the parents' or teachers' descriptions of the behaviors (Parker, 1992).
Children who are fortunate enough to have a thorough physical evaluation (which includes screening for

allergies and other metabolic disorders) and extensive psychological evaluations, which include assessment of intelligence, achievement, and emotional status, have a better chance of being accurately identified. A child may be gifted and have ADHD. Without a thorough professional evaluation, it is difficult to tell.

HOW CAN PARENTS OR TEACHERS DISTINGUISH BETWEEN ADHD AND GIFTEDNESS?
Seeing the difference between behaviors that are sometimes associated with giftedness but also characteristic of ADHD is not easy, as the following parallel lists show.

BEHAVIORS ASSOCIATED WITH ADHD (BARKLEY, 1990)
1. Poorly sustained attention in almost all situations
2. Diminished persistence on tasks not having immediate consequences
3. Impulsivity, poor delay of gratification
4. Impaired adherence to commands to regulate or inhibit behavior in social contexts
5. More active, restless than normal children
6. Difficulty adhering to rules and regulations

BEHAVIORS ASSOCIATED WITH GIFTEDNESS (WEBB, 1993)
1. Poor attention, boredom, daydreaming in specific situations
2. Low tolerance for persistence on tasks that seem irrelevant
3. Judgment lags behind development of intellect
4. Intensity may lead to power struggles with authorities
5. High activity level; may need less sleep
6. Questions rules, customs and traditions

CONSIDER THE SITUATION AND SETTING
It is important to examine the situations in which a child's behaviors are problematic.
Gifted children typically do not exhibit problems in all situations. For example, they may be seen as ADHD-like by one classroom teacher, but not by another; or they may be seen as ADHD at school, but not by the scout leader or music teacher. Close examination of the troublesome situation generally reveals other factors which are prompting the problem behaviors. By contrast, children with ADHD typically exhibit the problem behaviors in virtually all settings "including at home and at school" though the extent of their problem behaviors may fluctuate significantly from setting to setting (Barkley, 1990), depending largely on the structure of that situation. That is, the behaviors exist in all settings, but are more of a problem in some settings than in others.

In the classroom, a gifted child's perceived inability to stay on task is likely to be related to boredom, curriculum, mismatched learning style, or other environmental factors.
Gifted children may spend from one-fourth to one-half of their regular classroom time waiting for others to catch up -- even more if they are in a heterogeneously grouped class. Their specific level of academic achievement is often two to four grade levels above their actual grade placement. Such children often respond to non-challenging or slow-moving classroom situations by "off-task" behavior, disruptions, or other attempts at self-amusement. This use of extra time is often the cause of the referral for an ADHD evaluation.

Hyperactive is a word often used to describe gifted children as well as children with ADHD. As with attention span, children with ADHD have a high activity level, but this activity level is often found across situations (Barkley, 1990). A large proportion of gifted children are highly active too. As many as one-fourth may require less sleep; however, their activity is generally focused and directed (Clark, 1992; Webb, Meckstroth, & Tolan, 1982), in contrast to the behavior of children with ADHD. The intensity of gifted children's concentration often permits them to spend long periods of time and much energy

focusing on whatever truly interests them. Their specific interests may not coincide, however, with the desires and expectations of teachers or parents.

While the child who is hyperactive has a very brief attention span in virtually every situation (usually except for television or computer games), children who are gifted can concentrate comfortably for long periods on tasks that interest them, and do not require immediate completion of those tasks or immediate consequences. The activities of children with ADHD tend to be both continual and random; the gifted child's activity usually is episodic and directed to specific goals.

While difficulties and adherence to rules and regulations has only begun to be accepted as a sign of ADHD (Barkley, 1990), gifted children may actively question rules, customs and traditions, sometimes creating complex rules which they expect others to respect or obey. Some engage in power struggles. These behaviors can cause discomfort for parents, teachers, and peers.

One characteristic of ADHD that does not have a counterpart in children who are gifted is variability of task performance. In almost every setting, children with ADHD tend to be highly inconsistent in the quality of their performance (i.e., grades, chores) and the amount of time used to accomplish tasks (Barkley, 1990). Children who are gifted routinely maintain consistent efforts and high grades in classes when they like the teacher and are intellectually challenged, although they may resist some aspects of the work, particularly repetition of tasks perceived as dull. Some gifted children may become intensely focused and determined (an aspect of their intensity) to produce a product that meets their self-imposed standards.

WHAT TEACHERS AND PARENTS CAN DO
Determining whether a child has ADHD can be particularly difficult when that child is also gifted. The use of many instruments, including intelligence tests administered by qualified professionals, achievement and personality tests, as well as parent and teacher rating scales, can help the professional determine the subtle differences between ADHD and giftedness. Individual evaluation allows the professional to establish maximum rapport with the child to get the best effort on the tests. Since the test situation is constant, it is possible to make better comparisons among children.
Portions of the intellectual and achievement tests will reveal attention problems or learning disabilities, whereas personality tests are designed to show whether emotional problems (e.g., depression or anxiety) could be causing the problem behaviors.
Evaluation should be followed by appropriate curricular and instructional modifications that account for advanced knowledge, diverse learning styles, and various types of intelligence.

Careful consideration and appropriate professional evaluation are necessary before concluding that bright, creative, intense youngsters like Howard have ADHD. Consider the characteristics of the gifted/talented child and the child's situation. Do not hesitate to raise the possibility of giftedness with any professional who is evaluating the child for
ADHD; however, do not be surprised if the professional has had little training in recognizing the characteristics of gifted/talented children (Webb, 1993). It is important to make the correct diagnosis, and parents and teachers may need to provide information to others since giftedness is often neglected in professional development programs.

REFERENCES
American Psychiatric Association (1987). "Diagnostic and statistical manual of mental disorders," Third edition, revised. Washington, DC: Author.

Barkley, R. A. (1990). "Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment." Guilford Press: New York.

Clark, B. (1992). "Growing up gifted." Macmillan: New York.

Parker, H. C. (1992). "The ADD hyperactivity handbook for schools." Plantation, FL: Impact Publications.

Webb, J. T. (1993). "Nurturing social-emotional development of gifted children." In K. A. Heller, F. J. Monks, and A. H. Passow (Eds.), "International Handbook for Research on Giftedness and Talent," pp. 525-538. Oxford: Pergamon Press.

Webb, J. T., Meckstroth, E. A., and Tolan, S. S. (1982). "Guiding the gifted child: A practical source for parents and teachers." Dayton: Ohio Psychology Press.

ERIC Digests
Working with Diverse Learners and School Staff in a Multicultural Society

With the rapidly changing population demographics of the United States and the significant growth of diverse multicultural groups, schools and professionals are being challenged as to how to provide the best comprehensive educational and support services to their increasingly diverse student population. The changes between 1980 and 1990 have been dramatic. The growth rates within this time span range from approximately 13 percent for African Americans to 108 percent for Asian Americans (Sue, 1991). It is estimated that by the turn of the century, approximately 30 percent of the United States population will be from a racial/ethnic minority group (Office of Ethnic Minority Affairs, 1995). The increasing diversity within the schools is also demonstrated by the higher visibility of other groups of diverse learners, including, but not limited to, children with disabilities, children and families identified with the deaf culture, and gay and lesbian youth.

The challenges in working with an ever growing pluralistic school population encompass many areas. The provision of relevant multicultural curriculums, the use of culturally sensitive assessment and intervention strategies, the training of school staff in the provision of these services, the recruitment and retention of multicultural and diverse professionals, and the integration of diverse communities and parents in an authentic and empowering manner are only a few of the critical issues facing those working with today's students. Professionals are also challenged by the need to consider the impact of complex social/environmental problems, which in many contexts have negative consequences for children from various racial/ethnic and social class backgrounds. Only a few of these major issues will be highlighted.

THE TRAINING OF CULTURALLY SENSITIVE PROFESSIONALS
Although there has clearly been a greater recognition of the need for training in multicultural competence across professions, many programs still conceptualize this training as more of an "add-on"; that is, programs require only one or two courses for their particular professional specialty. This is in contrast to a more comprehensive and integrated "paradigm shift" in the teaching of all helping professional courses (Nuttall, Sanchez, & Webber, in press).

The training of school staff and other related professionals can be conceptualized by using a model that emphasizes three major components: awareness, knowledge, and skills (Sue, Arredondo & McDavis, 1992; Sue et al., 1982). The awareness component involves professionals examining their own values, myths, stereotypes, and world view. Knowledge entails developing a non-stereotyping, flexible understanding of cultural, social, and family dynamics of diverse groups, along with a comprehension of the critical sociopolitical, historical, and economic contexts in which people from diverse multicultural groups are embedded. Skills require the development of culturally sensitive, flexible, and empowering treatment and assessment strategies that are accompanied by communication skills, the integration of

multicultural and diversity issues in various treatment modalities, multicultural consultation, and advocacy skills.

Depending on the school, staff, and community context, flexible training can take place on many levels, such as formal multicultural issues course work, in-service training, long-term consultation and analysis, multicultural program development, and reciprocal relationships with the surrounding multicultural communities.

A MODEL FOR SERVING DIVERSE LEARNERS

A useful model that allows for the integration of many of these critical variables is the Ecological Model developed by Bronfenbrenner (1979) and enhanced by others (Knoff, 1986; Nuttall, Romero, & Kalesnik, 1992). According to this model, we try to understand or evaluate a student (the microsystem) in the context of his/her mesosystems (immediate family, extended family, friends, network), macrosystems (culture or subculture), and exosystems (social structures). This model places the diverse learner, school staff, and parents/community in an ecological context, which then allows both for a broader understanding of the critical issues affecting students from diverse backgrounds and the development of relevant service and educational models. These educational models need to be highly sensitive to the particular community and social contexts of which the diverse learners and school staff are members.

For the diverse learner and the school staff, the ability to conceptualize and integrate culture and issues of diversity within a developmental perspective is also crucial, given the changes in developmental tasks at each life stage and the various ways that these "tasks" are expressed and resolved within various cultural groups (Lee, 1995). Relevant to the diverse learner in schools, these issues must be integrated within the specialized early intervention programs offered to children with developmental issues (Lynch & Hanson, 1992). Early intervention services are an extremely important part of the total, life-stage conceptualization for low income, diverse learners because such learners are more vulnerable to developmental concerns.

CULTURALLY SENSITIVE ASSESSMENT AND TREATMENT STRATEGIES

Through the development of multicultural competencies within the areas of awareness, knowledge, and skills, the probability increases of psychologists using assessment and treatment strategies that meet the needs of a wide range of culturally diverse groups. The need for flexible and culturally sensitive assessment techniques has continued to be stressed by many in the field (Facundo, Nuttall, Walton, 1994; Nuttall, Sanchez, Borras, Nuttall, & Varvogli, in press). Examinations of the critical features in assessment should include the sociocultural context of the diverse learner and his family, the sociocultural background of the examiner, such as issues of awareness of biases and stereotypes, and the selection of appropriate testing, interview, and survey instruments. All of these measures enhance the possibility of more relevant and culturally sensitive assessments. Furthermore, the consideration of issues related to language and its complexities is another major factor in providing relevant and meaningful assessments.

The need for changes in the conceptualization of children's abilities and how skills are assessed, particularly with diverse learners, has also led to strategies that focus on problem-solving abilities. Maker, Nielson, and Rogers (1994) described the need for change in assessments within a diverse school settings, including the assessments of students who are to be considered

"gifted." The authors presented various assessment programs that rely on Gardner's theory of multiple intelligences (1983) and they provided an analysis of problem-solving strategies for individual children. These procedures stress the process of problem solving and they offer an examination of each child's pattern of multiple intelligences in an attempt to get away from the more traditional and, at times, rigid analyses based on formal intelligence and skills testing. Likewise, the model of Maker, Nielson, and Rogers (1994) has great implications for the assessment of children of all levels and children from diverse backgrounds. Their model allows for individual analyses of children's particular problem-solving style and strengths, which are then encouraged, while areas for remediation are addressed.

Intervention strategies also need to incorporate the critical issues of culture and social context. Works on specific cultural groups, such as Lock (1995) on interventions with African American youth, Jackson (1995) on counseling youth of Arab Ancestry, Thomason (1995) on counseling Native American clients, Zapata (1995) on working with Latinos, and Yagi & Oh (1995) on interventions with Asian American youth, provide valuable guidelines on working with specific populations and serve to increase awareness of the specific cultural factors relevant to that particular cultural group. Awareness of, and the ability to assess, specific factors such as acculturation, language proficiency (including guidelines on the use of translators), and sociocultural history, further enhances the provision of culturally affirming treatment strategies (Paniagua, 1994; Vazquez Nuttall, DeLeon, & Valle, 1990).
The need to deal with diverse groups must also include work with gay and lesbian youth (LaFontaine, 1994) and youth with disabilities (Sanchez, in press), particularly as we proceed with educational inclusion models which are further enhancing the diversity presented within school systems.

TRAINING STUDENTS TO BE CULTURALLY SENSITIVE
With the changing composition of today's student population, the need to provide educational programs that address the complex issues related to multiculturalism and diversity is becoming more and more evident. Schools and educators must begin to develop curriculums that integrate awareness, knowledge, and skills within educational materials. It is critical that diversity and multiculturalism not be conceived as being accomplished by adding a course, a lecture, or a one-day "multicultural fair." A total curriculum transformation needs to take place where the critical issues of diversity and multiculturalism are integrated into all aspects of students' academic achievement, social skills development, and relationship with the community at large.

An example of such an attempt is the work of one of the authors (Li, 1993, 1994) who developed a psycho-educational course to help students increase their self-awareness, acceptance and appreciation of the self and others, and communication skills. The course was tried in two multicultural schools and in one school comprised mainly of minority children. The response from the students and teachers of both regular and special education classrooms was positive. They noticed the nurturing climate developed through the course.

The opportunity for children to begin to integrate into their lives issues related to multiculturalism and diversity is vital to the development of acceptance and respect for others from diverse backgrounds. Along with traditional educational models that present historical and social information about people from diverse backgrounds, the creation of models that stress the

development of awareness and cultural sensitivity skills needs to take place (Omizo & D'Andrea, 1995). Under this general category of enhancing multicultural awareness and respect for diversity is the critical need for confronting issues of racism and prejudice. The need for direct discussion and exploration of these issues within schools needs to be conceptualized as another critical element of the work done by those involved with the diverse learner within multicultural settings (Ponterotto & Pedersen, 1993).

INVOLVING PARENTS AND COMMUNITY AS AUTHENTIC PARTICIPANTS
Another major component in working with diverse learners is that of establishing "authentic" relationships with parents and the community. This is a critical element of any effort directed towards increasing multicultural understanding and the development of a truly pluralistic school and community environment. To become actively involved in school is hard for immigrant parents who are not familiar with American school systems. Workshops on American schools including structure, rules, services, and the rights and responsibilities of parents and children are found to be helpful, even empowering, to these parents.

The need for direct work with parents and communities has been stressed by Atkinson and Juntunen (1994): "... school personnel must function as a school-home-community liaison, as an interface between school and home, school and community, and home and community" (p. 108). Casas & Furlong (1994), writing with regards to Hispanic parents, but offering ideas clearly applicable to other multicultural groups, stress the advocacy role of school counselors both to "...increase parent participation and facilitate the increase empowerment..." (p. 121) of parents and the community. This is a critical role that needs to be taken on not just by school counselors, but by all school staff working with diverse learners in an increasingly multicultural environment.

SUMMARY
Learners from diverse multicultural groups, children with disabilities, and gay and lesbian youth will continue to present challenges to schools and those providing educational and support services. The development of educational curriculums that enhance awareness, knowledge, and skills for students is vital if schools are to provide culturally relevant, respectful, and affirming teaching environments. To that end, the development of culturally sensitive assessment and intervention strategies, multicultural consultation, and professional training needs to take place. Structured along the lines of awareness, knowledge, and skills development, such actions will enhance diversity within the school environment. The diverse student and community can be conceptualized as a wonderful and exciting element of the world we live in, and not as a hindrance to the educational process. The authentic involvement of parents as active and empowered members of the school community will link school staff with the diverse learner, further increasing and affirming cultural diversity within our school settings.

REFERENCES
Atkinson, D. R., & Juntunen, C. L. (1994). School counselors and school psychologists as school-home-community liaisons in ethnically diverse schools. In P. Pederson & J. C. Carey (Eds.), Multicultural counseling in schools: A practical handbook (pp. 103-119). Boston, MA: Allyn & Bacon.
Bronfenbrenner, E. (1979). The ecology of human development. Cambridge, MA: Harvard

University Press.

Casas, M., & Furlong, M. J. (1994). School counselors as advocates for increased Hispanic parent participation in schools. In P. Pederson & J. C. Carey (Eds.), Multicultural counseling in schools: A practical handbook (pp. 121-155). Boston, MA: Allyn & Bacon.

Facundo, A., Nuttall, E. V., & Walton, J. (1994). Culturally sensitive assessment in schools. In P. Pederson & J. C. Carey (Eds.), Multicultural counseling in schools: A practical handbook (pp. 207-223). Boston, MA: Allyn & Bacon.

Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York: Basic Books.

Jackson, M. L. (1995). Counseling youth of Arab ancestry. In C. C. Lee (Ed.), Counseling for diversity: A guide for school counselors and related professionals (pp. 41-60). Boston, MA: Allyn & Bacon.

Knoff, H. (1986). The assessment of child and adolescent personality. New York: Guilford Press.

LaFontaine, L. (1994). Quality school and gay and lesbian youth: Lifting the cloak of silence. Journal of Reality Therapy, 14(1), 26-28.

Lee, C. C. (1995). A school counseling and cultural diversity: A framework for effective practice. In C. C. Lee (Ed.), Counseling for diversity: A guide for school counselors and related professionals (pp. 3-17). Boston: Allyn and Bacon.

Li, C. (1993). Psychological intervention in the classroom: An experimental program. Paper presented at the convention of the National Association of School Psychologists, Washington, D.C.

Li, C. (1994). Psychoeducational program in regular and special classrooms. Paper presented at the convention of the National Association of School Psychologists, Seattle, WA.

Lock, D. C. (1995). Counseling interventions with African American youth. In C. C. Lee (Ed.), Counseling for diversity: A guide for school counselors and related professionals (pp. 21-40). Boston, MA: Allyn & Bacon.

Lynch, E. W., & Hanson, M. J. (1992). Developing cross-cultural competence: A guide for working with young children and their families. Baltimore: Brookes.

Maker, C. J., Nielson, A. B., & Rogers, J. A. (1994, Fall). Giftedness, diversity, and problem-solving. Teaching Exceptional Children, pp. 4-18.

Nuttall, E. V., Romero, I., & Kalesnik, J. (1992). Assessing and screening preschoolers: Psychological and educational dimensions. Needham, MA.: Allyn & Bacon.

Nuttall, E. V., Sanchez, W., Borras, L., Nuttall, R., & Varvogli, L. (in press). Assessment of the culturally and linguistically different child with emotional problems. In M. Breen & J. D. Fiedler-Craig (Eds.), Behavioral approaches to the assessment of emotionally disturbed youth: A handbook for school based practitioners. Austin, TX: Pro-Ed.

Nuttall, E. V., Sanchez, W., & Webber, J. J. (in press). Multicultural counseling theory: Implications for training. In D. W. Sue, A. E. Ivey, & P. B. Pedesen (Eds.), A theory of multicultural counseling and therapy. Pacific Grove, CA.: Brooks/Cole.

Office of Ethnic Minority Affairs (1995). Communique. Washington, DC: American Psychological Association.

Omizo, M. M., & D'Andrea, M. J. (1995). Multicultural classroom guidance. In C. C. Lee (Ed.), Counseling for diversity: A guide for school counselors and related professionals (pp. 143-158). Boston, MA: Allyn & Bacon.

Paniagua, F. A. (1994). Assessing and treating culturally diverse clients: A practical guide. Thousand Oaks, CA.: Sage.

Ponterotto, J. G., & Pedersen, P. B. (1993). Preventing prejudice: A guide for counselors and educators. Newbury Park, CA.: Sage.

Sanchez, W. (in press). Reality therapy, control theory, multiculturalism and special needs students: Practical guidelines. In L. Litwack & R. Renna (Eds.), Special education and quality inclusion: A control theory approach. Chapel Hill, N.C.: New View Press.

Sue, D. W., Arredondo, P., & McDavis, R. J. (1992). Multicultural counseling competencies and standards: A call to the profession. Journal of Counseling and Development, 70(2), 477-486.

Sue, D. W., Bernier, J. B., Durran, A., Feinberg, L., Pedersen, P., Smith, E., & Nuttall, E. V. (1982). Position paper: Cross-cultural competencies. Counseling Psychology, 10, 45-52.

Sue, S. (1991). Ethnicity and culture in psychological research and practice. In J. Goodchilds (Ed.), Psychological perspectives on human diversity in America (pp. 47-85). Washington, DC: American Psychological Association.

Thomason, T. C. (1995). Counseling Native American students. In C. C. Lee (Ed.), Counseling for diversity: A guide for school counselors and related professionals (pp. 109-126). Boston: Allyn & Bacon.

Vazquez Nuttall, E., DeLeon, B., & Valle, M. (1990). Best practices in considering cultural factors. In A. Thomas & J. Grimes (Eds.), Best Practices in School Psychology II (pp. 219-235). Washington, DC: National Association of School Psychologists.

Yagi, D. T., & Oh, M. Y. (1995). Counseling Asian American students. In C. C. Lee (Ed.), Counseling for diversity: A guide for school counselors and related professionals (pp. 85-108). Boston, MA: Allyn & Bacon.

Zapata, J. T. (1995). Counseling Hispanic children and youth. In C. C. Lee (Ed.), Counseling for diversity: A guide for school counselors and related professionals (pp. 85-108). Boston, MA: Allyn & Bacon.

Communicating with Culturally Diverse Parents

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Teachers and other professionals providing education-related services to exceptional children from different cultural backgrounds need to be aware of unique perspectives or communication styles common to those cultures. The ways people deal with feelings--especially disappointment, anxiety, fear, embarrassment, and anger--vary considerably, and often it is not easy to discern how parents are reacting to the realization that their child has a disability. It is especially important to help parents who have been outside the mainstream of U.S. education understand the educational options available. To do this, professionals need to be sensitive to the different values, experiences, and beliefs that may be held by members of various cultural and ethnic groups toward special education.

USE LANGUAGE PARENTS CAN UNDERSTAND AND USE SENSITIVITY IN COMMUNICATING.

To facilitate communication, educators should use the following guidelines:

    * Send messages home in the parent's native language.

    * Use an appropriate reading level.

    * Listen to messages being returned.

Courtesy, sincerity, and ample opportunity and time to convey concerns can promote communication with and participation by parents from different cultural backgrounds (Johnson & Ramirez, 1987). During meetings it is important to provide ample opportunity for parents to respond without interrupting. If a parent is formulating a response and has not expressed himself or herself quickly, this delay should not be viewed as a lack of interest in responding. Educators need to listen with empathy and realize that parents can change from feelings of trust to skepticism or curiosity as their understanding of programs and policies increases. It is important to realize that this reaction is normal and that parents may feel hostile or desperate as they attempt to sort out facts from their fundamental beliefs about education.

In communicating with families from different cultural groups, educators should keep in mind their diverse cultural styles. There is no one set of characteristics that can be ascribed to all members of any ethnic group. Instead, the cultural traits of individuals range from those traditionally attributed to the ethnic group to those that are descriptive of a person who has been totally assimilated into the majority culture (Carter & Segura, 1979). Unfortunately, much of the literature describing individuals from minority groups reinforces existing stereotypes. This digest offers some observations about different cultural styles that should be considered cautiously in communications with families of differing cultural backgrounds (Cloud & Landurand,1988; Johnson & Ramirez, 1987; Taylor, 1989).

Sharing Space. People from different cultures use, value, and share space differently. In some cultures it is considered appropriate for people to stand very close to each other while talking, whereas in other cultures people like to keep farther apart. For example, Hispanics often view Americans as being distant because they prefer more space between speakers. On the other hand, Americans often view individuals who come too close as pushy or invading their private space.

Touching. Rules for touching others vary from culture to culture. In Hispanic and other Latin cultures, two people engaged in conversation are often observed touching and individuals usually embrace when greeting each other. In other cultures, people are more restrained in their greetings. In the Asian/Vietnamese cultures, for example, it is not customary to shake hands with individuals of the opposite sex.

Eye Contact. Among African Americans it is customary for the listener to avert the eyes, whereas Euro-Americans prefer to make direct eye contact while listening. Among Hispanics, avoidance of direct eye

contact is sometimes seen as a sign of attentiveness and respect, while sustained direct eye contact may be interpreted as a challenge to authority.

Time Ordering of Interactions. The maxim "business before pleasure" reflects the "one activity at a time" mindset of U.S. mainstream culture. Some cultures, however, are polychronic, that is, people typically handle several activities at the same time. Before getting down to business, Hispanics generally exchange lengthy greetings, pleasantries, and talk of things unrelated to the business at hand. Social interactions may continue to be interwoven throughout the conversation.

PROVIDE PARENTS WITH INFORMATION.

Much of the need for information can be satisfied through regularly scheduled meetings, conferences, and planning sessions for a child's individualized education program (IEP). Educators may assume that their own familiarity with public policy is shared by parents of children with disabilities. Usually, this is not the case. Most parents of culturally diverse children with disabilities need help in understanding the basic tenets of the law, including their own rights and responsibilities.

SUPPORT PARENTS AS THEY LEARN HOW TO PARTICIPATE IN THE SYSTEM.

Schools must make a sincere commitment to consider parents as partners in their children's education. Professionals who are attempting to work and communicate with parents of children with disabilities should be prepared to support the parents' rights and responsibilities. In essence, professionals should adopt the role of advocate. Parents from culturally diverse backgrounds should be encouraged to join parent organizations and share their cultural points of view. Educators and other professionals should recognize parents' needs for the following:

* Assurance that they should not feel guilty about their child's disability.

* Acceptance of their feelings without labeling.

* Acceptance of them as people, rather than as a category.

* Help in seeing the positive aspects of the future.

* Recognition of what a big job it is to raise a child with disabilities and help in finding programs, services, and financial resources to make it possible for them to do the job with dignity.

Using these guidelines for communication, teachers and other professionals can assist parents of culturally diverse children with disabilities not only to combat feelings of isolation, but also to achieve a sense of belonging.

ENCOURAGE PARENTAL PARTICIPATION AT HOME.

A growing body of research evidence suggests that important benefits are gained by school-aged children when their parents provide support, encouragement, and direct instruction at home and when home-school communication is active. Children who receive parental help read much better than children who do not. Even instruction by highly competent specialists at school does not produce gains comparable to those obtained when students are tutored by their parents at home (Hewison & Tizard, 1980). Even illiterate parents can promote the acquisition of reading skills by motivating their children, providing an environment that promotes the acquisition of literacy skills, providing comparative and contrasting cultural information, asking the children to read to them, and encouraging verbal interaction about written material.

RESOURCES

Carter, T. P., & Segura, R. D. (1979). Mexican Americans in school: A decade ofchange. New York: College Entrance Examination Board.

Chinn, P. C. (1984). Education of culturally and linguistically different exceptionalchildren. Reston, VA: The Council for Exceptional Children. ED 256103.

Cloud, N., & Landurand, P. M. (1988). MULTISYSTEM (multicultural learning/teaching innovation) training program for special educators. New York: Teachers College, Columbia University.

Hewison, & Tizard, (1980). Parental involvement and reading attainment. British Journal of Educational Psychology, 50, 209-215.

Johnson, M. J., & Ramirez, B. A. (1987). American Indian exceptional children and youth. Reston, VA: The Council for Exceptional Children. ED 294338.

Kitano, K. K., & Chinn, P. C. (1986). Exceptional Asian children and youth. Reston, VA: The Council for Exceptional Children. ED 276178.

Marion, R. L. (1982). Communicating with parents of culturally diverse exceptional children. Exceptional Children, 46, 616-623.

Simich-Dudgeon, C. (1986). Parent involvement and the education of limited-English-proficient students. ERIC Digest. Washington DC: ERIC Clearinghouse on Languages and Linguistics. ED 279205.

Taylor, O. L. (1989). The effects of cultural assumptions on cross-cultural communication. In D. Koslow & E. Salett (Eds.), Cross cultures in mental health (pp.18-27). Washington, DC: International Counseling Center.

ERIC Digests

Meeting the Needs of Gifted and Talented Minority Language Students

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Students with special gifts and talents come from all cultural and linguistic backgrounds. Gifted students can be described as possessing an abundance of certain abilities that are most highly valued within a particular society or culture. Many minority language children have special talents that are valued within their own cultures; unfortunately, these students are often not recognized as gifted and talented.

Most procedures for identifying gifted and talented students have been developed for use with middle class children who are native English speakers. Such procedures have led to an underrepresentation of minority language students in gifted and talented programs, which in turn prevents our schools from developing the strengths and abilities of this special population.

This digest explores the controversy surrounding the underrepresentation of minority language students in gifted and talented programs and makes recommendations for more suitable assessment techniques and program models.

Why Are Minority Language Students Underrepresented in Programs for Gifted and Talented Students?

Educators who work closely with minority language students argue that using standardized IQ tests as a primary measure of giftedness does not fairly accommodate the linguistic and cultural differences of these students. These educators look to identify the "able learner" rather than the more narrowly defined gifted student who scores in the top 3% on IQ tests. Able learners are defined by some educators as students in the top 10% of their class who have shown some extraordinary achievement in one or more areas such as science, mathematics, or the performing arts (Ernest Bernal, personal communication, September 13, 1988).

Reliance on IQ tests alone has greatly diminished the potential number of gifted students. Renzulli (1978) indicated that "more creative persons come from below the 95th percentile than above it, and if such cut-off scores are needed to determine entrance into special programs, we may be guilty of actually discriminating against persons who have the highest potential for high levels of accomplishment" (p. 182).

Three percent is a conservative estimate of the percentage of the population that is considered gifted. However, in Arizona, for example, only 0.14% of the students in gifted and talented programs come from language minority backgrounds (Maker, 1987). Using the 3% criterion, one would estimate that 2,900 limited-English-proficient (LEP) students in Arizona could be receiving some type of services for giftedness. An assessment of needs, however, revealed that only 143 LEP children were participating in gifted programs, despite the fact that minority

language students represent 16.17% (96,674) of the school-age population. Other studies indicate that the proportion of Blacks, Hispanics, and American Indians identified as gifted represents only half that expected (Chan & Kitano, 1986).

Table 1 illustrates that, nationwide, Caucasians and Asians are overrepresented, while the percentage of Blacks and Hispanics is only half what would be expected in gifted and talented programs.

Table 1
Percentage of Minority Students Enrolled
in Regular Educational Programs and Special Programs

Minority Group	General Enrollment	Enrollment in Gifted Programs
Caucasians	71.2%	81.4%
Blacks	16.2%	8.4%
Hispanics	9.1%	4.7%
Asians	2.5%	5.0%

Sources: Zappia (1989); Machado (1987).

The concept of giftedness as it relates to culture and values can help explain why more gifted and talented Asian and Pacific-American students have been identified than any other group. Although these children comprise only 2.2% of the school-age population, they constitute 4.4% of the identified gifted students, twice the expected number (Kitano, 1986). (This figure is slightly lower than the statistic given in Table 1 [2.5%], but the table has more recent data.) The traditional Asian values of educational attainment and obedience to authority support achievement in U.S. schools, despite the fact that Asian and Pacific-American cultures differ in many ways from the majority culture.

Different learning styles may also contribute to the underrepresentation of gifted and talented minority language students. Native Americans are often caught between the schools' value of independence and the home and community value of interdependence. In school, students generally sit in rows and face the teacher, whereas in Native American culture, everyone would be seated in a circle and decisions would be made collectively.

Among many Hispanics, cultural differences may also produce manifestations of giftedness that differ from the traditional manifestations in the majority culture. In Puerto Rico, for example, children learn to seek the advice of their family rather than act independently (Perrone & Aleman, 1983). Respect for elders is often valued more than precociousness, which can be seen as disrespectful. Similarly, the Mexican-American child who respects elders, the law, and authority becomes vulnerable in a school system that values individual competition, initiative, and self-direction.

What Are Some Commonly Used Techniques for the Identification of Gifted and Talented Minority Language Students?

Research on the identification of giftedness points to the lack of appropriate assessment procedures. Giftedness is not a trait inherent to native English speakers; however, there is a lack of instruments that can detect giftedness in minority language students (Gallagher, 1979; Llanes, 1980; Raupp, 1988; Renzulli, Reis, & Smith, 1981). Most tests rely on either oral or written language skills. Minority language students who are not considered gifted may, in fact, be very gifted, but unable to express themselves in English. Therefore, many researchers urge that great caution be exercised in using English standardized tests for the identification of linguistic and cultural minority students. These researchers also recommend selecting tests that reduce cultural and linguistic bias.

The identification and assessment of gifted and talented minority-language students is complex because it involves students who are both gifted and talented and from a language or cultural background different from that of middle class, native-English-speaking children. Many researchers and practitioners recommend multiple assessment measures to give students several opportunities to demonstrate their skills and performance potential.

Each school can establish its own relevant criteria to ensure that the screening process is appropriate for a specific target population. Moreover, an assessment team that is sensitive to their needs can represent the population to be served in the program. In addition, teachers can be brought into the identification process, because they have the opportunity to observe students in numerous academic and social situations.

An alternative to using English language standardized tests is the assessment of LEP students in their native language. These tests measure a variety of skills: creative thinking skills such as fluency, flexibility, originality, and elaboration; intellectual development based on Piaget's theory of development (Piaget, 1954; Piaget & Inhelder, 1973); language proficiency; and nonverbal perceptual skills of cognitive development.

Many school districts now include behavioral checklists or inventories, nominations, or related techniques to identify gifted and talented minority language students. Checklists usually compare or rate the student according to general descriptions or more specific examples of behavior deduced from characteristics of gifted persons. Many of these instruments are designed locally, are available from state departments of education, or are available commercially.

Other commonly used methods such as interviews, self-reports, autobiographies, and case histories can also be used to identify gifted and talented minority language students. Interviews are often scheduled as part of the identification or selection process to determine a candidate's general fitness for a program and provide information for instructional planning. The use of case studies to identify giftedness has been documented by Renzulli and Smith (1977) and is recommended because it relies on multiple sources of information about a student's performance. Although these procedures can be cumbersome, time consuming, and complex, they can provide the most valid basis for decision making.

What Types of Programs Are Available for Gifted and Talented Students, and Are They Suitable for Minority Language Students Who Are Selected to Participate?

There are as many different types of programs and instructional models for gifted and talented LEP students as there are different views of intelligence. The program models discussed in this digest demonstrate a wide range of suggestions for choosing a program for gifted and talented students and can stimulate ideas about the types of program that can be implemented. However, each district must implement the program that will best meet the needs of its gifted and talented minority language students. Jean M. Blanning, of the Connecticut Clearinghouse for Gifted and Talented (1980), suggests that, in general, programs for gifted and talented minority language students should allow their students to:

- Pursue topics in depth at a pace commensurate with their abilities and intensity of interest
- Explore, branch out on tangents unforeseen when first beginning a study, without curriculum parameters confining them to a particular direction
- Initiate activities, diverge from the structured format, within a framework of guidance and resources appropriate for such exploration
- ask questions about areas or aspects of studies and find answers which lead to more questions
- Experience emotional involvement with a project because it is based on interests and use of higher levels of ability
- Learn the skills, methodology, and discipline involved in intellectual pursuits and/or creative endeavors
- Think (interpretations, connections, extrapolations) and imagine (ideas, images, intuitive insights) to develop fully into their own product
- Experience the use of intellectual abilities and senses necessary in all creative endeavors.

Enrichment Programs
The most common program model for gifted and talented students is probably an enrichment program, in which students receive instruction in addition to their regular classroom instruction. Enrichment programs provide learning experiences designed to extend, supplement, or deepen understandings within specific content areas (Dannenberg, 1984). Some enrichment programs provide academic services and cultural opportunities for gifted and talented students.

Gifted and talented LEP students at Louis S. Brandeis High School in New York City (Cochran & Cotayo, 1983) attend operas and museums and, in this way, become a part of American culture. Students have said that the program has made them feel "special," because they visit places they ordinarily would not. Another example of activities in an enrichment program would be to have students studying the prehistoric era watch films on dinosaurs, draw pictures of them, and go to a natural history museum to see a dinosaur exhibit.

The decision as to whether or not to implement an enrichment program may be greatly affected by the school district's concept of giftedness. If giftedness is considered a quality to be measured through IQ tests, then perhaps an enrichment program would be seen as a "frill," because it does not concentrate strictly on academics. On the other hand, this program may be particularly appreciated by gifted and talented minority language students, since they often do not receive

this sort of exposure to the arts in a standard instructional program.

Resource Rooms
Another program model uses a resource room, which is usually staffed by a resource teacher. Students may visit the resource room to do special assignments or to check out various educational games or puzzles. In a kindergarten/first grade gifted and talented program in Albuquerque, New Mexico (Beam, 1980), parents are also able to check out items for their children. The resource room provides an excellent opportunity for parents and students to bridge the gap between home and school. However, in many inner-city schools, special programs may be needed to obtain the desired levels of parental support. Also, the establishment of a resource room usually requires physical space for the room, sufficient operating funds, and a resource teacher who has expertise in the area of gifted and talented students.

The Hartford, Connecticut, program "Encendiendo Una Llama" ("Lighting a Flame") has been in operation since 1979 and uses a resource room, an after-school program, and a regular classroom component to provide services for gifted and talented minority language students. This program emphasizes language development in English and Spanish, high-level thinking skills, independent work and study skills, and development of creative thinking. It is an integrated program in which English-dominant children also participate. In each of the participating Hartford schools, the bilingual gifted and talented program is the only gifted program in the school, and all children are eligible to participate, regardless of their language background.

Parent Involvement Programs
Many programs include a strong parent involvement component in which parents can help support their children's development at home while the school can be used as an additional resource. Although it is important for all parents to be involved in their children's education, it is particularly critical to develop a strong link between the home and the school for gifted and talented minority language children.

Many programs provide parents with checklists to help assess their children. In addition, programs often provide booklets of home activities through which parents can encourage critical thinking and creativity.

Acceleration or Honors Programs
Many people associate acceleration or honors programs with gifted and talented programs. These programs may include skipping grades, early entrance, early graduation, credit by examination, nongraded classes, and advanced placement classes (Dannenberg, 1984). Some gifted students who seem bored in school may benefit from an accelerated program that provides an academic challenge and keeps them involved in school. However, it may be difficult to identify these students, who initially may not be seen as gifted.

Some educators who adhere to the narrow definition of giftedness as high IQ may not feel that an honors program is appropriate for students who fit the broader definition of the able learner. This attitude is refuted in the film Stand And Deliver, which is based on a true story about several minority language students at an inner-city school in Los Angeles. These students were not considered gifted by many of their teachers, yet they were the only students in their school to

pass the Advanced Placement exams given by the Educational Testing Service for college credit in calculus. Their success can be attributed largely to their mathematics teacher, Jaime Escalante, who had very high expectations for them and refused to believe that they were unable to think critically simply because they were from low-income, minority language backgrounds. He encouraged their participation in these special advanced classes (held at night and on Saturdays in overcrowded, stifling classrooms) to prove to other students, the faculty, and themselves that they were intelligent. Moreover, these students gained new, strong, self-concepts, which inevitably improved their academic skills and gave them the courage and discipline to pursue a college education.

Mentor Programs
Another program model for gifted and talented education is the mentor program. Mentors provide role models for the students, giving them an opportunity to interact with adult professionals. Through the Higher Achievement Program in Washington, DC, elementary and junior high school students from low-income neighborhoods are tutored by volunteers 2 nights a week. To be eligible for the program, students must show a high level of motivation and pass a qualifying examination. One night each week is devoted to verbal skills such as reading comprehension, vocabulary, and writing; the second night is devoted primarily to mathematics and related skills. Critical thinking skills are stressed in all subjects.

The mentor program has many psychological and social benefits for the students and is a low-cost program if the school district recruits area professionals as volunteers. School districts located near universities can encourage them to establish a course in which official credit is given to university students who participate as mentors. If the mentors are sensitive to the needs of particular cultural and linguistic groups, they can provide positive role models for the students. The mentor program concept can be a solution to difficult budget constraints and has been used by numerous school districts around the country.

Recommendations for Change

The following recommendations may improve the assessment and educational programs of gifted and talented minority language students.

- **Broaden the concept of giftedness**. Broadening the concept of giftedness to include able learners will allow for the identification of a greater proportion of gifted minority language students. A broader definition of giftedness may be the first essential step toward identifying and educating gifted and talented minority language students.
- **Expand research on giftedness and minority language students**. Although there is a large body of literature on gifted and talented students in general, there is much less literature on gifted and talented minority language students. This may be because many researchers in the past did not consider minority language students as gifted, based on the traditional measure of giftedness as a high IQ score. Further research is needed on all the able learners in our schools, including minority language students.
- **Employ more well-rounded assessment techniques**. If there is a lower-than-expected proportion of minority language students identified as gifted, then the identification and assessment process should be examined to determine why these students have not been

identified. School districts may need to find creative solutions to the problem of how to identify gifted and talented minority language students by using nontraditional methods.

The identification of minority language students can include multiple criteria (with information from as many sources as possible) that are relevant to the needs of the population. Using multiple instruments can result in a more precise picture because it provides information about students from different perspectives. A combination of assessment instruments can help ensure that a student's ability to participate effectively in a gifted and talented program is adequately measured.

- **Increase staff awareness of their potential for developing a gifted and talented program**. Regardless of the program model selected for implementation, administrators must first examine the resources they have within their school system. Upon entering the school district, teachers could be asked to complete a questionnaire about their abilities and interests and whether or not they would be interested in participating in a gifted and talented program. For example, a teacher who has played piano for 10 years might be interested in teaching a course in music appreciation. Administrators need to be aware of the unique talents within their own staff as they identify local personnel who may be able to contribute their time, effort, and expertise to gifted and talented programs.
- **Explore various program models**. No single model can be recommended as the "best" instructional approach for gifted and talented minority language students, because each population is unique and each program has its own specific goals and objectives. The type of program implemented may depend on several issues such as the instructional model, the talents of the students, the number of gifted students identified, the talents of the professional staff, the availability of qualified personnel, the level of commitment of the school and school system, and budget constraints.
- **Increase awareness of different ways giftedness may be manifested in different populations**. Many students are gifted or talented. Teachers face the challenge of identifying, developing, and supporting their students' talents. Although this may be a challenge, it is also a rewarding experience. Watching students grow to their fullest potential and knowing that, as the teacher, you have played an integral part in your students' growth are great personal and professional triumphs.

Conclusion

This digest highlights some of the current debates in the education of gifted and talented students focusing on the definition of giftedness, the assessment of gifted students, and the development and implementation of gifted programs. Providing appropriate gifted and talented programs for students from linguistically and culturally diverse backgrounds is a challenge that many school districts face. Since minority language students represent an increasing percentage of the total school population, meeting the educational needs of gifted minority language students is vital. All students, including minority language students, deserve the most challenging instruction possible.

References

Beam, G. C. (1980). "A kindergarten/primary program for culturally different potentially gifted students in an inner city school in Albuquerque, New Mexico" (Final Report). Grant Number G007901801. Project Number 562AH90290. Albuquerque: Albuquerque Special Preschool.

Blanning, J. M. (1980). "A multi-dimensional inservice handbook for professional personnel in gifted and talented." Hartford: Connecticut State Department of Education, Connecticut Clearinghouse for the Gifted and Talented.

Chan, K. S., & Kitano, M. K. (1986). "Demographic characteristics of exceptional Asian students." In M. K. Kitano & P. C. Chinn (Eds.), EXCEPTIONAL ASIAN CHILDREN AND YOUTH (pp. 1-11). Reston, VA: The Council for Exceptional Children.

Cochran, E. P., & Cotayo, A. (1983). "Louis D. Brandeis high school, demonstration bilingual enrichment college preparatory program." New York: New York City Public Schools.

Dannenberg, A. C. (1984). "Meeting the needs of gifted & talented bilingual students: An introduction to issues and practices." Quincy: Massachusetts Department of Education, Office for Gifted and Talented.

Gallagher, J. J. (1979). "Issues in education for the gifted." In A. H. Passow (Ed.), THE GIFTED AND THE TALENTED: THEIR EDUCATION AND DEVELOPMENT. Chicago: University of Chicago Press.

Kitano, M. K. (1986). "Gifted and talented Asian children." RURAL SPECIAL EDUCATION QUARTERLY, 8(1), 9-13.

Llanes, J. R. (1980, February-March). "Bilingualism and the gifted intellect." ROEPER REVIEW, 2(3), 11-12.

Machado, M. (1987, February). "Gifted Hispanics under-identified in classrooms." HISPANIC LINK WEEKLY REPORT, p.1.

ERIC Digests

Minorities in Science and Math

While the nation is concerned about the shortage of teachers at the K-12 grade levels, especially in science and mathematics, there is also continuous concern about attracting and retaining more students in these subject areas. Looking to the year 2000 and beyond, we face the potential of a serious shortfall in the number of individuals entering the fields of science and mathematics. This is especially true for underrepresented minority students (Blacks, Hispanics, and American Indians). In the years ahead, these underrepresented minorities will constitute a growing population within the pool of students from which a highly skilled workforce will be drawn.

Minorities are underrepresented at every level from elementary to graduate school. Lack of preparation in science among under-represented minority groups in the early elementary grades undermines enrollment and success in secondary-level school programs and, ultimately, in college and career choices later in life.

As the nation's economic base shifts increasingly toward technology, participation and achievement in science and mathematics among minority students become increasingly important. Unfortunately, minority students, those who form the most rapidly growing portion of our school-age population, are the ones that are most left out of science and mathematics. By not studying these subjects, both the minority students and the United States as a whole stand to lose. The minority students are depriving themselves of many career choices, including the skilled technical and computer-oriented occupations as well as access to white male-dominated, high salaried occupations. Further, a basic understanding of science and mathematics is essential for all students, not only those pursuing careers in scientific and technical fields. Adequate preparation in science and mathematics enables students to develop intellectually and socially, and participate fully in a technological society as informed citizens (Clark, 1996). The United States can meet future potential shortfalls of scientists and engineers only by reaching out and bringing members of underrepresented minorities into science and engineering. America's standing and competitiveness depend on it (Task Force on Women, Minorities, and the Handicapped in Science and Technology, 1988).

CHANGING DEMOGRAPHICS
Differing fertility rates, immigration patterns, and age distributions, and thus death rates, of population subgroups suggest that the 21st century profile will contrast sharply with that of the 20th century. If the pattern continues, around the year 2030 the total elementary-school-age cohort of the United States could be about equally divided between Whites and all other racial and ethnic groups combined. Over the next 20 years, Blacks, Hispanics, American Indians, and Asian Americans would together outnumber the total White population of elementary school children (Hodgkinson, 1992). The composition of this projected workforce causes great concern in the scientific community and suggests that the United States must make greater efforts in increasing the proportion of minorities choosing careers in science.

STATUS OF MINORITIES IN SCIENCE
Too few minorities (Blacks, Hispanics and Native Americans) are represented among the population of scientists in the United States. Despite substantial gain over the past decade, minorities are still underrepresented in science and engineering, both in employment and training (NSF, 1996).

Data from the National Science Foundation (NSF, 1994) indicate that in 1990, racial and ethnic minorities constituted 22% of the civilian labor force but only 14% of the science and engineering labor force. Underrepresented minorities (Blacks, Hispanics, and American Indians) represented 19% of the total labor force and 8% of the science and engineering labor force. Asian Americans were well represented in the science and engineering labor force, at 3% of the total labor force and 6% of the science and engineering labor force. Women made up 46% of the labor force in all occupations, but only 22% of the science and engineering labor force.

In the year 2000, it is projected that 85% of new entrants to the workforce in the United States will be females and members of minority groups. Based on this percentage, the goal should be clear. Both groups should be represented in the scientific and technology professions in proportion to their presence in the population as a whole.
Although Blacks demonstrated significant progress during the decade from 1980 to 1990, in both science and math courses taken and in student achievement, they continue to be underrepresented in the science and engineering labor forces. Hispanics also remain underrepresented, with little progress being made during the past decade (NSF, 1994). Limited statistics available on American Indians in the labor force suggest that they too are underrepresented in science and engineering.

BARRIERS TO SUCCESS
Factors contributing to unequal participation of minorities in science and mathematics education include understaffed and under-equipped schools-usually found in minority communities-tracking, judgments about ability, number and quality of science and mathematics courses offered, access to qualified teachers, access to resources, and curricula emphasis (NSF, 1996) Inequities in school funding can also highlight the social context of schooling. Schools, particularly secondary schools, in urban areas with a high proportion of economically disadvantaged or a high proportion of minority students offer less access to science and mathematics education.

According to NSF (1996), being labeled by ability is very important to student achievement because teachers tend to have different expectations of students in the various groups. Teachers of "high-ability" classes are more likely than those of "low-ability" classes to emphasize the development of reasoning and inquiry skills. Students in "low-ability" classes are more likely to read from a textbook and spend time doing worksheet problems and less likely to be asked to write reasoning about solving a mathematics problem and participate in hands-on science activities.

Minority students also have less access to qualified teachers. Math classes with higher proportions of minorities are less likely than those with lower proportions of minorities to have

teachers with majors in the mathematics.

The instructional emphasis in largely minority classes are likely to differ as well. The teachers in science and mathematics classes having a high minority enrollment are more likely to emphasize preparing students for standardized tests and are less likely than those in classes having fewer minority students to emphasize preparing students for further study in science or mathematics.

All too often, at the elementary school level, usually around the middle school grades, many students, especially minority students, learn to dislike or fear science and mathematics and take only the minimum required courses in these subjects at the junior and senior high school levels. The damage done is incalculable. They emerge from elementary and secondary schools without an adequate grounding in science and mathematics. Even if they become interested in the subjects in later grades, it is often too late to take the courses necessary to pursue careers in the fields of science and mathematics in college.

TRANSFORMING TEACHING AND LEARNING

To ensure that all students receive an appropriate, high-quality science and mathematics education, measures should be taken by educators to ensure that underrepresented minorities have improved opportunities and greater encouragement to participate fully in science and mathematics education. Curricular and instructional methodologies need to be updated to include cooperative learning and accommodate alternative learning styles. The science program should be designed to foster enthusiasm, interest, and competence both for pursuing careers in the field and for the acquisition of skills and knowledge demanded by an increasingly technological society.

SUGGESTIONS FOR TEACHERS

For effective science and mathematics teaching, the teacher should:
*Incorporate manipulative materials and hands-on activities as regular instructional strategies. Provide opportunities for students to engage in problem-solving inquiry-based activities.
*Have high expectations in science and mathematics for all students.
*Encourage and challenge all students. Provide experience that will challenge the students intellectually.
*Involve all students in classroom activities and discussions. Present science as a subject that everyone can learn.
*Employ a variety of teaching styles and strategies. Modify and adapt materials and learning to allow the fullest possible participation of all students.
*Provide opportunities for students to learn how science and mathematics are applicable to daily living and valuable to future education and employment. Encourage all students to apply classroom learning to practical situations. Also, help students connect life experiences to learning experiences.
*Make provisions for as much individualization as possible. Provide cooperative learning activities that will provide students opportunities to associate with each other, learn from each other, and gain respect for each other.
*Involve appropriate role models in career exploration activities.
*Encourage parents' interest in promoting science and mathematics.

It is important for teachers to help students develop to their maximum potentials by involving

them in classroom experiences that will (a) challenge them intellectually, and (b) prepare them for a life of continuous learning. Without sufficient instruction, many students, whether they are slow learners, average, gifted, or from other exceptional groups, will show little interest in science and mathematics. They will eventually "turn off" to science and mathematics and never realize their potential in these subjects.

PARENTAL INVOLVEMENT
There are several things that every parent should know about science and mathematics classes. Among them are:
*Given support and encouragement, all students can perform well in science and mathematics courses.
*All students should take science and mathematics courses every year.
*Students learn science best through hands-on experiences.

Here are ways parents can guide children toward excellence in science and mathematics:
*Get involved in creative educational programs in the community. (a) Visit the museum. There are a variety of exhibits and classes held for children and their parents at museums. (b) Check local colleges and universities for summer science and mathematics programs or information about science and mathematics programs for school-age children. There are several National Science Foundation (NSF) funded programs designed to help children develop an understanding of science and mathematics. These programs emphasize "hands-on" experimentation and exploration.
*Encourage children to read about science. Check the local library for books about science and easy-to-do science projects.
*Watch science TV with children. There are several good science programs on television, such as National Geographic Specials, NOVA, Nature, and Bill Nye-The Science Guy, designed specifically for children. As parents watch with their children, they should help them ask questions and understand the concepts presented.
*Shop for items for home science. Go to museums and bookstores and look at science books for children. Look for books that have science activities in them.
*Encourage natural curiosity. Share informal education activities frequently through visits to zoos, museums, and local high technology companies. Go to toy stores and look for games that encourage children to think, ask questions, test solutions, etc.

All students, minority students in particular, need to know the importance of science and mathematics in their daily lives. Knowledge of these subjects help them to develop intellectually and socially. Science is a way of thinking, a way of understanding the world. Minority students need to understand that early involvement with the substance of science and mathematics can open gates for them into all the domains of knowledge and employment. Science and mathematics are shaping the future; studying these subjects prepares them for a place in that future.

THE CHALLENGE
Teachers are called on to provide quality education to all children and prepare them to live and work in a world transformed by rapid growth in new technologies, international competitiveness, economic globalization, and increasing demographic shifts. Americans must become aware that

future shortfalls of scientists and engineers can only be met by bringing minorities into the pool of science and mathematics majors. As a new century approaches, the promise made by America and articulated by Franklin D. Roosevelt over a half century ago must be reclaimed: "We seek to build an America where no one is left out." America must ensure that all children receive a quality education and have access to economic opportunities (Quality Education for Minority Project, 1990).

REFERENCES
Clark, J.V. (1996). "Redirecting science education: Reform for a culturally diverse classroom." Thousand Oaks, CA: Corwin Press.
Hodgkinson, H.L. (1992). "A demographic look at tomorrow." Washington, DC: Institute for Education Leadership, Center for Demographic Policy.
National Science Foundation. (1994). "Women, minorities, and persons with disabilities in science and engineering," Washington, DC.
Quality Education for Minorities (QEM) Network. (1990). "Education that works: An action plan for the education of minorities." Cambridge: MIT, QEM Network.
Task Force on Women and the Handicapped in Science and Technology. (1988, September). "Changing America: The new face of science and engineering (Interim report)." Washington, DC.

WORLD WIDE WEB RESOURCES
Quality Education for Minorities Network
http://qemnetwork.qem.org

Women and Minorities in Science and Engineering
http://www.ai.mit.edu/people/ellens/Gender/wom_and_min.html

SUMMA (Strengthening Underrepresented Minority Mathematics Achievement (SUMMA) Program of the Mathematical Association of America)
http://www.maa.org/summa/archive/summa_wl.htm

Equity
http://www.serve.org/Eisenhower/equity.html

Frequently Asked Questions – Gifted & Talented Underachievement

(This document is intended to provide guidelines for interpreting 704 Kentucky Administrative Regulation (KAR) 3:285. Programs for the gifted and talented, in relation to underachievement. **Kentucky Department of Education is here to assist in the implementation of this interpretation and/or the regulations on underachievement.)**

Q: How do you define underachievement?

A: A common, general definition for underachievement as it applies to education is described as a student achieving poorly and/or less than his/her potential or mental abilities would indicate he/she should be capable of attaining. Another common indicator of underachievement is observed discrepancies between intelligence test scores and academic performance. Underachievement can also be described as a gap between teacher or parent expectations and student performance. Underachievement essentially is a discrepancy between potential and performance, or ability and achievement, or simply, unfulfilled potential. Who is to determine what will measure this unfulfilled potential? The potential of the underachiever is difficult to define, according to research. Any discrepancies should be observable over a substantial period of time.

The variations in definitions of underachievement come from how ability and achievement are measured. (Rimm, 2006) Although precise operational definitions provide clarity for research, they lack flexibility for identifying specific causes of underachievement. (Reis and McCoach, 2000).

> Sally Reis (2000) states that there is no universally agreed upon definition of gifted underachievement.
>
> According to James R. Delisle and Sandra L. Berger (1990), underachievement is often seen as a problem of attitude or work habits. Gifted children who do not succeed in school are often successful in outside activities such as sports, social occasions, and after-school jobs. Even a child who does poorly in most school subjects may display a talent or interest in at least one school subject. Thus, labeling a child as an "underachiever" disregards any positive outcomes or behaviors that child displays. It is better to label the behaviors than the child (e.g., the child is "underachieving in math and language arts" rather than an "underachieving student").
>
> James Delisle states: "While pretending to have the best interests of underachievers at heart, authors on this topic do their best to zap out of these often creative children the very essence of what has kept them alive, intellectually speaking: their nonconformity and their refusal to accept mediocrity in their education." Delisle continues, "There is no argument that some very capable children are not performing as well in school tasks as they could. It is equally true that some individual schools and teachers provide little intellectual sustenance for gifted students."
>
> 704 KAR 3:285. Programs for the gifted and talented states: Section 1. Definitions.
> (33) "Underachieving" means the development of a significant gap between a student's potential ability and demonstrated achievement to a degree that there is an overall diminished ability to achieve at the expected level of ability.

Q: What is the definition a gifted/talented underachiever?

A: A gifted underachiever is a student who demonstrates high ability in their area of identification, but does not perform at that level in the classroom. It is important to recognize the student's level of potential. A gifted underachiever would expect to fall short of fulfilling that potential. A non-gifted underachiever will not likely have high ability, high intelligence or high achievement test scores.

Q: What would qualify a student as underachieving in each area of giftedness?
A: The most commonly applied standard is performing below the average for the current grade/subject level (Math, Language Arts, Social Studies, Science, Music, Drama, Dance, Visual Art, all of which have a curriculum).

> **The National Research Center on the Gifted and Talented (NRCGT) states:** The academically able underachiever (in Math and Language Arts) shows a discrepancy as evidenced by lower than expected academic performance by meeting both of the following criteria: 1) Has grades in the bottom half of his/her class or has a "C" average. 2) Is recommended by the classroom teacher, gifted specialist, and/or counselor as being a bright underachiever. To be "identified " as an underachiever, the gifted student needs to be underachieving during the current academic school year. Students who have done poorly in previous school years, but have improved his/her grades recently should NOT be included in this group. This can be observed as failing to achieve the academic level of which he/she is capable and often below achievement levels of those with average abilities.

Caution: Students who are talented in the visual/performing arts but are also introverted, shy or have low self-esteem may have difficulty performing for an audience/audition and not have the ability to showcase his/her talent. Low socio-economic students may lack formal training with little or no opportunities for enrichment. (Ford, 1996) These students may be truly gifted yet underachieve *before* they are ever identified as gifted/talented.

To determine underachievement in the area of General Intellectual ability, a test of cognitive ability or the use of a current CSI (Cognitive Skills Index) score may help to decide if the student is performing up to the level of his/her mental abilities. Underachievers may exhibit a decline in IQ or achievement test scores over time. This can also be observed in classroom activities and assignments. A student identified as gifted in the area of general intellectual may or may not show his/her abilities through academic achievement and have more to do with his/her thinking abilities. Examples include: a student who may score high on a *Stanford-Binet* and likely be a student with high verbal and abstract reasoning abilities, but may not have a high level ability in math, science, art, etc. or a student who may score high on the *Raven Progressive Matrices* or the *Wechsler Intelligence Scale for Children* indicating high visual-spatial abilities, but may not ensure high academic performance. High visual-spatial abilities are not always accessed in regular classroom activities and assignments.

Is the student working at their level of potential in relation to how they use abstract reasoning, logical reasoning, social awareness, memory, nonverbal ability and the analysis, synthesis, and evaluation of information? Is the student consistently standing out among peers in these capacities? The underachiever will not be performing at his/her level of ability.

> KY Regulations state: Section 1. Definitions.
> (16) "General intellectual ability" means possessing: (a) Either the potential or demonstrated ability to perform at an exceptionally high level in general intellectual ability, which is usually reflected in extraordinary performance in a variety of cognitive areas, such as abstract reasoning, logical reasoning, social awareness, memory, nonverbal ability and the analysis, synthesis, and evaluation of information; and (b) A consistently outstanding mental capacity as compared to children of one's age, experience, or environment.

In relation to leadership, I think we can look at unfulfilled potential as observed by someone who knows the child and is familiar with high levels of ability in leadership. Another way to look at underachieving

leaders is to observe students who use their abilities in socially unproductive and unacceptable ways, often leading students in the "wrong" direction.

> An underachieving leader may choose unethical and expedient solutions to problems, going with the group rather than against it, compromise his/her values, lack commitment to principles and causes, does not identify with humanity, cannot admit to his/her shortcomings, and is unwilling to accept societal norms. (Ford, 1996)

> KY Regulations state: Section 1. Definitions.
> (26) "Psychosocial or leadership ability" means possessing either potential or demonstrated ability to perform at an exceptionally high level in social skills and interpersonal qualities such as poise, effective oral and written expression, managerial ability, and the ability, or vision, to set goals and organize others to successfully reach those goals.

In relation to creativity, again, I think we can look at unfulfilled potential as observed by someone who knows the child and is familiar with high levels of ability in creativity. Creative underachievers may have high scores on measures of creative ability yet demonstrate few of the characteristics of creativity; divergent thinking, flexibility, fluency elaboration, originality, etc.

> A creative underachiever may produce ideas but lack initiative to follow through and fail to generate products needed to evaluate his/her creativity. Conversely, underachievers can demonstrate creative behaviors, yet he/she fails to demonstrate creative abilities on standardized tests. (Ford, 1996)

> KY Regulations state: Section 1. Definitions.
> (8) "Creative or divergent thinking ability" means possessing either potential or demonstrated ability to perform at an exceptionally high level in creative thinking and divergent approaches to conventional tasks as evidenced by innovative or creative reasoning, advanced insight and imagination, and solving problems in unique ways.

Caution: Paper/pencil tests and timed tests often conflict with creative and divergent thinking.

Q: What is the purpose of identifying underachieving students?
A: The law states we should help meet individual student needs commensurate with their interests, needs and abilities and to facilitate a high level attainment of goals. If an underachieving student is not recognized and not working up to his/her abilities and attaining a high level of goals, he/she may be considered "at risk" for dropping out of school, prone to disciple problems, depression, suicide, or other potential negative outcomes. It could be considered a tragic loss to society and more importantly, have extensive personal consequence when one does not work to his/her potential. All students have a right to an education designed for their level of needs, interests, goals and abilities. To what degree gifted & talented underachievers are identified and monitored is up to the interpretation of what are the students' interests, needs, abilities and goals.

Q: Who will help these students identified as underachievers?
A: Individual student needs and abilities and the high level attainment of goals are correlated to his/her individual achievement/underachievement. **The local school district shall provide** professionally qualified and certified personnel to differentiate instruction to meet his/her *individual needs,* provide educational experiences commensurate with his/her interests, *needs and abilities; and facilitate the high level attainment of goals.*

704 KAR 3:285. Programs for the gifted and talented states: Section 8. Personnel. A local school district shall ensure that direct services to students identified as demonstrating gifted and talented behaviors and characteristics shall be provided by professionally qualified and certified personnel as required by the Education Professional Standards Board.

    (1) A teacher shall be appropriately endorsed in gifted education in accordance with 704 KAR 20:280 if the teacher works:

      (a) directly with identified gifted pupils in addition to the regularly assigned teacher; or

      (b) For at least one-half (1/2) of the regular school day in a classroom made up only of properly identified gifted students.

    (2) All other personnel working with gifted students shall be prepared through appropriate professional development to address the individual needs, interests, and abilities of the students.

704 KAR 3:285. Programs for the gifted and talented states: Section 6. Service Delivery Options. (1) A student diagnosed as possessing gifted characteristics, behaviors or talent shall be provided articulated, primary through grade twelve (12) services which:

      (a) Are *qualitatively differentiated to meet his individual needs;*

      (b) *Result in educational experiences commensurate with his interests, needs and abilities;* and

      (c) *Facilitate the high level attainment of goals* established in KRS 158.6451.

General Cautions:

1) Test scores may not predict long-term performance.
2) Different causes at different times affect academic behavior. It may be situational or temporary, and not a chronic problem.
3) Educators may not have reliable information to assess how many gifted students are underachieving.
4) Students may be observed over time to see a noticeable pattern, however, most of the gifted population is rarely challenged to use his/her ability, and you may see a large number of students falling into the definition of underachievement.

Conclusion:
This document is intended to provide guidelines for interpreting the regulations regarding gifted and talented students in relation to underachievement. **The definitions and regulations for underachievement presented are not conclusive and are interpretive. Kentucky Department of Education is here to assist in the implementation of this interpretation and/or the regulations on underachievement.**

Other:
The earlier underachievers are recognized, the better chance there is to reverse underachievement.

"What the individual achieves affects what the learner becomes." ~~Johyn Goodlad, 1964

References:
704 Kentucky Administrative Regulation (KAR) 3:285. Programs for the gifted and talented.

Delisle, James Ph. D. (1994). Dealing with the stereotype of underachievement. Prufrock Press. Nov/Dec.

Delisle, James R. & Berger, Sandra L. (1990). ERIC EC Digest #E478 Underachieving gifted students.

Ford, Donna. (1996). Reversing underachievement among gifted black students. Teachers College Press.

Heller, Monks, & Passow; Editors. (1993). International Handbook of Research and Development of Giftedness and Talent. Pergamon Press Ltd.

Kerr, Barbara A. & Cohn, Sanford J. (2001). Smart Boys: Talent, Manhood, and the Search for Meaning. Great Potential Press, Inc.

Metagifted Education Resource Organization: www.metagifted.org/topics/gifted/underachievement/

NRCGT (The National Research Center on the Gifted and Talented): A study to increase academic achievement for underachieving gifted students.

Reis, S. (2000). Underachievement of gifted students: Many frustrations and few solutions. Promise: New Jersey Association for Gifted Children, 8(3), 4-16.

Reis, S. & McCoach, D.B. (2000). The underachievement of gifted students: What do we know and where do we go? *Gifted Child Quarterly,* 44, 152-170.

Rimm, Sylvia, Ph.D. (2006) When gifted students underachieve what to do about it. Waco TX: Prufrock Press Inc.

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ERIC Digests

Helping Underachieving Boys Read Well and Often

The ability to read well is the most important skill children can acquire. Reading ability and the desire to read vary significantly among groups of children, however. This was demonstrated, for example, by the findings of the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K), a national study on school readiness that measured children's ability to identify by name uppercase and lowercase letters of the alphabet, associate letters with sounds at the beginning and ending of words, recognize common words by sight, and read words in context. ECLS-K found that on all these measures girls were more proficient than boys, whites more proficient than non-Asian students of color and Latinos, and children from higher socioeconomic (SES) backgrounds more proficient than lower SES children (reported in Coley, 2002). Moreover, the reading gap between whites and students of color frequently widens with age (Coley, 2001).

There are many reasons why some children do not read well and do not like to read, some of which are related to biological and cognitive factors. Other impediments to reading achievement include the use of ineffective teaching strategies and materials; the lack of sufficient and enticing reading resources in schools, communities, and homes; and family habits that do not include reading. This digest provides information on how schools and families can improve the reading skills of native English speaking children, particularly poor elementary school level boys of color. It focuses on ways to increase the time they spend reading and the enjoyment they get from doing so; it does not cover strategies for teaching reading. The recommendations presented below, based on the analysis and experience of experts, have proven to be particularly useful with boys who are most at risk of underachievement but least likely to view reading as an important activity.

HOW BOYS VIEW READING
Boys tend to learn to read at an older age than girls, take longer to learn, and comprehend narrative texts less easily. Boys also value reading less, and see reading as a way to get information rather than as a recreational activity (Simpson, 1996; Smith & Wilhelm, 2002). While researchers differ on whether boys of color see reading as "acting white," and, thus, something to be avoided (Smith & Wilhelm, 2002), one study of African American boys found that they resented activities they defined as schoolwork, believing that they will never benefit from an education (Tanksley, 1995).

READING MATERIALS THAT BOYS LIKE
Boys tend to read a "wider number of genres over a broader range of topics" than girls (Simpson, 1996, p. 272). They are usually most interested in books and periodicals about hobbies, sports, and activities they might engage in, and in informational resources. They like escapism (science fiction, adventure, and fantasy) and humor more than fiction and poetry, and they like to collect series of books (Simpson, 1996; Smith & Wilhelm, 2002).

Reading choices made for boys frequently do not reflect their preferences, since girls are clearer and more vocal about what books they want, elementary school teachers are predominantly women, and mothers rather than fathers select reading materials for their children. Obviously, then, involving boys in the selection process will increase their attentiveness (Simpson, 1996). Further, boys, like all children, want to see characters like themselves sometimes. Therefore, materials should feature people of different ethnicities, races, and backgrounds who live in a variety of types of homes and communities. (One resource for materials of particular interest to African American children is a bibliography produced by the National Association for the Education of Young Children [Brown & Oates, 2001]).

CLASSROOM STRATEGIES FOR INCREASING BOYS' READING

Reading aloud by teachers, guest readers, and students is a valuable classroom activity to which substantial amounts of time should be allotted. It is especially beneficial for boys who may not be reading at other times and need to be introduced to the pleasure that reading provides. Teachers can capture boys' interest by associating the material to be read with their existing knowledge. When they read aloud to boys, teachers can help them to associate sounds with symbols by letting them follow along with the text. Rotating reading materials of different genres allows boys to see the many types of reading materials available--not just novels and textbooks, but also newspapers and magazines, how-to guides, comics, and computer programs--and their multiple uses (Simpson, 1996).

Boys gain confidence in their reading ability when they read aloud in class. Frequent interruptions or corrections undermine this confidence, however. Since teachers correct boys' reading more than girls', they need to be sensitive to the effects of their criticism (McCarthy, Nicastro, Spiros, & Staley, 2001; Smith & Wilhelm, 2002). Additional time for silent reading promotes the independent development of skills and the enjoyment of reading.

Teachers can help boys comprehend reading materials and promote analytical thinking by involving them in class or group discussions. Students can review the content, purpose, and presentation of particular types of books, and how they differ. They can "talk about stories as constructions of the world, not as reflections of it," and can consider whether they empathize with the characters. They can use their imaginations to recast a story using characters of a different sex or ethnicity. Because girls tend to dominate discussions of books, teachers need to take care that boys participate (Simpson, 1996, p. 278).

A library in the classroom stocked with attractive age- and ability-appropriate books encourages boys to pick up one when they have a free moment. Inviting all children to design the library area, and to choose and organize the books, promotes use. Regular visits to the school library show boys a much wider range of reading materials and foster their desire to improve their skills so they can read the more sophisticated material there. Outings to the public library serve the same purpose. Also, getting children library cards encourages future visits with their families (Calkins, 1996).

JOINT STRATEGIES FOR THE SCHOOL, COMMUNITY, AND HOME

Schools, libraries, and community groups can join with families to improve boys' reading. Adults can talk about how reading alone and with friends, looking for books in stores, libraries, and flea markets, giving books as gifts, and sharing what they have learned, makes them happy and helps them relate to others (Calkins, 1997).

More formally, organizations can implement reading programs. They can provide male reading role models of color to help boys develop the habit of reading. Such role models are especially important for boys living in homes without men, and including them in a supplementary education program can help compensate for families that do not read at home. Men can model reading by doing so themselves and reading aloud to children, and by telling children why reading enriches their own lives (Tanksley, 1995). A tutoring program can also employ adult role models. Alternatively, it can pair less proficient readers with more accomplished students who can instinctively select appealing books, articles, and manuals providing instructions for engaging in an activity or constructing a model. Of course, all tutors can use school texts (Tanksley, 1995).

ACTIVITIES FOR PARENTS
Schools can help parents promote their children's reading by communicating that it is important to read to sons (every day, if possible), that they do not have to be well educated to do so effectively, and that schools cannot be solely responsible for their children's education. Schools can direct parents to free sources of reading materials (such as the school itself, libraries, and community organizations) and manage book swaps. They can also encourage parents to allow their children time for reading and provide an inviting place for it. Parents can also be helped to integrate reading with their children naturally into their schedules (Coley, 2002; McCarthy et al., 2001; North Carolina, 1999; Tanksley, 1995).

Parents can model reading, sharing what they have learned, recommending good books, and mentioning what they want to learn from reading in the future. Parents and sons can read together, selecting increasingly difficult materials to help boys improve their skills and promoting positive interactions as they predict what will happen in a story and then discuss what did happen and why. Parents and sons can look up information together both to show the value of reading and to help boys develop problem-solving skills. Parents can take books along on long trips or to places where waiting is anticipated to help boys appreciate the value of reading as recreation. Finally, parents can maintain a reading log with their sons that indicates what, when, and how much the boys are reading. The log keeps parents informed, supports their sons' efforts, and encourages reading together (Calkins, 1996; McCarthy et al., 2001; North Carolina, 1999; Tanksley, 1995).

CONCLUSION
Many enticements compete for children's time, television most especially. For boys, the desire to be physically active can further impede their interest in reading. Therefore it is necessary to help boys select and use reading materials that are as entertaining as television, tap into their special interests and answer their unique questions about the world, and provide information that facilitates their participation in sports and other group activities.

Finally, the reading that boys do should not be dismissed as inconsequential even though it often does not include the novels and other traditional materials usually read by girls. The genres preferred by boys can be equally helpful in their development of reading, thinking, and problem solving skills, and should be considered key resources in their education.

- REFERENCES
  Brown, J.C., & Oates, L. (2001). Books to grow on: African American literature for young children. Washington, DC: National Association for the Education of Young Children.
  Calkins, L.M. (1996, August). Motivating readers: First things first: Planting the seeds for lifelong reading. Instructor, 106(1), 32-33. (EJ 533 473)
  Calkins, L.M. (1997, January-February). Motivating readers: Five ways to nurture a lasting love of reading. Instructor, 106(5), 32-33. (EJ 538 525)
  Coley, R.J. (2001). Differences in the gender gap: Comparisons across racial/ethnic groups in education and work. Princeton: Educational Testing Service. (ED 451 222)
  Coley, R.J. (2002). An uneven start: Indicators of inequality in school readiness. Princeton: Educational Testing Service.
  McCarthy, S., Nicastro, J., Spiros, I., & Staley, K. (2001). Increasing recreational reading through the use of read-aloud's. Unpublished manuscript, Saint Xavier University, Chicago, IL. (ED 453 541)
  North Carolina State Board of Education, Department of Public Education. (1999). Reading with your elementary child: Tips for parents--grades 3-5. Raleigh: Author. (ED 438 038)
  Simpson, A. (1996, December). Fictions and facts: An investigation of the reading practices of girls and boys. English Education, 28(4), 268-79. (EJ 540 728)
  Smith, M.W., & Wilhelm, J.D. (2002). "Reading don't fix no Chevys": Literacy in the lives of young men. Portsmouth, NH: Heinemann.
  Tanksley, M.D. (1995). Improving the attendance rate for African American male students in an after school reading program through parental involvement, positive male role models, and tutorial instruction. Ed.D. Practicum, Nova Southeastern University, Fort Lauderdale, FL. (ED 394 119)

APPROPRIATE EDUCATION FOR GIFTED GLBT STUDENTS

The National Association for Gifted Children (NAGC) periodically issues policy statements dealing with issues, policies, and practices that have an impact on the education of gifted and talented students. Policy statements represent the official convictions of the organization.

All policy statements approved by the NAGC Board of Directors are consistent with the organization's belief that education in a democracy must respect the uniqueness of all individuals, the broad range of cultural diversity present in our society, and the similarities and differences in learning characteristics that can be found within any group of students. NAGC is fully committed to national goals that advocate both excellence and equity for all students. We believe that the best way to achieve excellence and equity is through differentiated educational opportunities, resources, and encouragement for all students.

Many educational groups, at the national, state, and local levels, are concerned about how best to meet the particular needs of students who are gay, lesbian, bisexual, and transgendered (GLBT). NAGC, which has an organizational policy of non-discrimination toward GLBT persons, supports practices of equitable and sensitive treatment of GLBT youth and recommends that educators demonstrate understanding and equity toward gifted GLBT students in their schools.

Similar to other gifted youth, GLBT students may have strengths in any of the federally defined areas of giftedness: intellectual development, academic achievement, creativity, visual and performing arts, and leadership. Further, like other gifted youth, these students are present across races, genders, ethnic groups, income levels, geographical locations, religions, and abilities/disabilities. However, unlike most other groups of gifted students, GLBT youth may be placed in social-emotional double jeopardy: they may not only feel different from other youth because of their gifts but they may also feel isolated due to their sexual identities. These young people may experience unusually high rates of verbal and physical harassment, substance abuse, sexually transmitted diseases, homelessness, and differential access to school services that can contribute to substantial problems such as dropping out of school, contemplation and completion of suicide, and many other by-products of social alienation.

It is critical to note that GLBT youth may be known or not known as sexual minorities to educators. Regardless of whether these youth are "out" or "not out" as GLBT persons, the assessments and programming that they receive should be sensitive to GLBT culture, taking into account the special ways in which gifted GLBT youth may display intellectual, academic, creative, artistic, and leadership excellence. Both in classrooms and school libraries, programming efforts for gifted GLBT youth should address a range of academic, affective, and career needs related to their development as gifted *and* GLBT people. Academic programming should be differentiated, empowering gifted GLBT students to develop their unique learning potential and interests in GLBT-sensitive school settings. Affective programming needs to provide for student safety, evoke acceptance and appreciation, develop social skills, and nurture self-advocacy abilities. Career education should encourage gifted GLBT youth to consider a range of careers as wide as the span of their talents and interests rather than urge them into stereotypically gay or stereotypically straight positions in which they must submerge their true identities.

Whether engaged in academic, affective, or career programming, educators dealing with gifted GLBT students must model openness, fairness, and sensitivity regarding sexual-orientation issues. Because school environments may not support GLBT students, pre-service and in-service teachers, counselors, and other educational professionals must be trained specifically to create a safe and productive environment for gifted GLBT youth. A GLBT-supportive school atmosphere encourages adult and student acceptance of others and creates an environment where students develop self-understanding and pride. Only through such purposeful support of these students' development as *both* gifted *and* GLBT will these students be able to develop fully.

Resources for Autism and other Disabilities:

Kentucky Autism Training Center
University of Louisville.
Louisville KY 40292
502-852-5555
1-800-334-UofL (8635)
http://louisville.edu/kyautismtraining/

Autism Society of America 7910 Woodmont Ave., Suite 300
Bethesda, MC 2014
301.657.0881
800.328.8476
www.autism-society.org

National Information Center for Children and Youth with Disabilities
NICHCY
P.O. Box 1492
Washington, DC 20013
(800) 695-0285 · v/tty
(202) 884-8441 · fax
www.nichcy.org

Cabinet for Families and Children
502.564.7130
http://cfc.state.ky.us

The Challenge; Winter 2004 had an article titled "Before Referring a Gifted Child for ADHD Evaluation" by Sharon Lind, M.S.Ed., copyright, 1996
The link is:
http://www.sengifted.org/articles_counseling/Lind_BeforeReferringAGiftedChildForADD.shtml

Gifted But Learning Disabled: A Puzzling Paradox
http://www.kidsource.com/kidsource/content/Gifted_learning_disabled.html

Tourette Syndrome in the Classroom
http://www.tsact.org/images-downloads/TS%20in%20the%20Classroom.pdf