This collection of 12 handouts focuses on different categories of atypical gifted learners and their characteristics. The handouts are generally two pages long and present a summary of the literature on the topic, some practical teaching suggestions, and references. The handouts include: (1) "Socioeconomically Disadvantaged Gifted Students" (Pam Simpson); (2) "The Underachieving Gifted Student" (Carolyn Seal); (3) "Disabled Gifted" (Brenda Waldrip); (4) "Learning Disabled Gifted" (Elaine Callaway); (5) "ADD (Attention Deficit Disorder) and Gifted" (Teri Cranford); (6) "African-American Gifted Students" (Alison Parish); (7) "Gifted American Indians and Alaskan Natives" (Shelbie Hatten); (8) "Gifted and Female" (Alecia Hammack); (9) "Artistically Gifted" (Read M. Diket); (10) "Musically Gifted" (Janet Wade); (11) "Linguistically Gifted" (Tina Wheat); and (12) "Mathematically Precocious" (Brenda Broadhead). (DB)
ATYPICAL GIFTED LEARNERS AND THEIR CHARACTERISTICS

PREPARED BY TEACHERS OF THE GIFTED FOR WILLIAM CAREY COLLEGE

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ATYPICAL GIFTED LEARNERS
AND THEIR CHARACTERISTICS

PREPARED BY TEACHERS OF THE GIFTED FOR WILLIAM CAREY COLLEGE

A packet of professional handouts designed to highlight characteristics and teaching strategies appropriate for atypical gifted learners

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1993 and 1994
ATYPICAL GIFTED LEARNERS AND THEIR CHARACTERISTICS

PREPARED BY TEACHERS OF THE GIFTED FOR WILLIAM CAREY C'J LEGE
Read M. Diket, Ph.D. and Trudy Abel, Ph.D., Editors

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Cover design by Barbara Clover
The effects of under identification with students from socioeconomically disadvantaged backgrounds concerns involved parents and educators. Procedures are not defined well enough to insure equitable opportunities for students whose families do not seek identification. Unlike many peers, socioeconomically disadvantaged pupils may lack financial and psychological support from home once in programs. These gifted young people are the hope of a better future for their families and neighbors. For their own sake, and for future generations, it is crucial to develop the potential of these young people.

**Socioeconomically Disadvantaged Gifted Students**
Contributed by Pam Simpson

Education should hold the same basic goal for all students: they should leave school prepared for happy and successful adult lives (Cavazos, 1990). But does the educational system fail when it doesn’t recognize the special and needs and talents of low socioeconomic students?

The issue of identification with low SES gifted students is a critical one in the field of education for the gifted and has long been problematic. The low number of these children being identified for traditional gifted programming, even today, attests to the fact that the problems are not resolved. Talent loss among disadvantaged gifted youth continues virtually unabated (Frasier, 1991).

Clark (1992) states that the first test in solving this problem is to make parents, teachers, principals, and boards of education aware that gifted learners can be found in low SES homes. Even when traditional testing fails, characteristics can be checklisted with some degree of accuracy. According to Clark, some of the following traits of low SES gifted learners which pertain to identification can be observed in the school setting:

1. high mathematical abilities
2. alertness, curiosity
3. independence of action
4. initiative and eagerness to do new things
5. fluency in nonverbal communication
6. imagination in thinking
7. flexibility in approach to problems
8. learning quickly through experience
9. retaining and using ideas and information well
10. showing a desire to learn in daily work
11. originality and creativity in thinking
12. responding well to visual media
13. leadership ability in peer group
14. responsible social behavior
15. varied interests
16. ability to generalize learning to other areas and to show relationships among apparently unrelated ideas
17. resourcefulness, the ability to solve problems by ingenious methods
18. entrepreneurial ability, readily making money on various projects or activities
19. imaginative story telling using language rich in imagery
20. mature sense of humor
21. responsiveness to the concrete

Educators should think seriously about the total student body and use many strategies to encourage socioeconomically disadvantaged students to achieve to their full potential.

References:


Underachievement and giftedness seem incongruous terms to many educators of the gifted. It is ironic that high potential or abilities developed outside of educational settings may go unheralded and unused in our culture due to overt and covert behavioral patterns in young people.

The Underachieving Gifted Student
Contributed by Carolyn Seal

Gifted Underachievers puzzle their teachers and their families by the paradox of their obvious capabilities and their, just as obvious, lack of productiveness in school environments (Rimm, 1989).

Underachieving gifted students lack a sense of control. Though highly competitive, they have not learned that competition means coping with both victory and defeat.

The underachiever may quit an activity when it becomes too difficult. They expect an almost magical arrival at a goal.

Underachievers lack confidence, yet they may acknowledge that they are “smart.” Underachievement means that their capabilities cannot be judged by others.

Underachievement can be associated with the following (Gleason, 1988):

1. social and emotional conflict
2. physical causes such as sight impairment, hearing impairment, infection, disease, and malnutrition
3. family economics and sociological conditions
4. low self-esteem
5. academic environment including the class and the teacher

Khatena (1992) states that underachievement is “relative,” especially in terms of a multivariate concept of giftedness, and measurement with statistical tools must accommodate this variable.

The following list was drawn from students’ answers as they probed the causes of their underachievement. Emerick (1992) considered people, settings, and events in styling prescriptions for success.
Prescriptions for Success:

1. Out of school interests provide an escape as well as an avenue for self-worth and success.
2. Parents have a positive effect on academic performance if they value children for more than academic success. Parents should maintain a positive attitude and have a calm and reassuring demeanor.
3. Classes must offer an intellectual challenge as well as an opportunity for areas of interest that pertain to "real life."
4. Goals associated with academic performance are of no importance to some underachievers.
5. The teacher is considered the "most influential factor." Characteristics of effective teachers include those who care for students, are enthusiastic and knowledgeable, have realistic expectations, and have a willingness to communicate with students as peers.
6. Self-worth and a positive attitude also play an important part in reversing underachievement; doing things for personal satisfaction and gratification breaks underachievement patterns.

The gifted underachiever has been described as "one of the greatest social wastes of our culture." As a teacher it is very frustrating to encounter a gifted child who is not reaching his or her full potential. Maker (1982) suggests curricular modifications in the classroom environment which alleviate some underachievement:

1. gain understanding and empathy for the highly gifted child
2. reduce external pressures
3. plan for the child to experience genuine success
4. evaluate the appropriateness of the curriculum
5. teach the child skills for coping
6. communicate genuine respect and acceptance
7. be flexible
8. work closely with parents

In closing, gifted children's self concepts must be nurtured or inner conflict may be expressed as minimal effort and underachievement.

References:
A gifted child with physical and/or sensory disabilities is one who meets definition guidelines for both the gifted and disabled categories. Aside from the potential of high performance, the student must also meet criteria for being classified as hard of hearing, deaf, speech impaired, visually handicapped, orthopedically impaired, or health impaired.

Disabled Gifted
Contributed by Brenda Waldrip

It is generally assumed that the incidence of giftedness among the disabled is similar to that of the population in general, namely 3 to 5 percent (Whitmore and Maker, 1985). With the exception of mental retardation, disabling conditions typically do not preclude giftedness. Given the focus on identified general intellectual strengths for gifted education, the abilities profile for the disabled is atypical in respect to strengths. This student group forces educators to consider subnormal functioning in at least one area, combined with superiority in another.

Obstacles to identification of gifted disabled students (Whitmore and Maker, 1985) include the following:

1. stereotypic expectations
2. development delays
3. incomplete information about a child
4. lack of opportunity to evidence superior mental abilities

As the gifted disabled student is more often noticed for his/her disability rather than talent (Maker, 1977), the assessor must use multiple assessment methods to supplement traditional identification methods. When possible, these students should be compared to peers with similar disabilities.

Karnes and Johnson, (1987) suggest appropriate interventions for the gifted disabled will be:

1. carefully tailored to fit individual needs
2. sensitive to the education of the whole student
3. collaborative among professionals with different perspectives on a student's needs, including
   a. integration of school services programs which tend to be fragmented with treatment for LD programs
   b. provisions of atypical responses beyond the traditional classroom and school
   c. accommodation to strengths and deficits areas require educational teaming and careful planning
   d. involvement of family members
e. use of tutors and mentors are recommended
f. consultation with appropriate specialists in handicapping conditions, school psychologists, and others knowledgeable about these learners.

The double-labeled or Type V gifted students (Daniels, 1983) are physically or emotionally disabled in some way. These students often do not exhibit behaviors that schools look for in the gifted. The students could exhibit negative traits, symptoms, and behaviors as follows:

1. sloppy handwriting
2. disrupt class
3. demonstrate inconsistent work
4. have low self-esteem
5. becomes frustrated or angry.
6. confused about inability to perform
7. feels rejection or isolation
8. deny difficulty by claiming assignments are "boring" or "stupid"
9. often become impatient, critical and stubborn while being highly sensitive to criticism
10. may use humor to demean others as a means to bolster lagging self-esteem
11. have difficulty "getting to the point"

Identification of the gifted disabled student may incorporate but should not be limited to the following:

1. characteristic checklists
   (university of Illinois Pre-School Assessment Guide, Services to the Gifted Handicapped Checklist by University of North Carolina Chapel Hill, and Teacher Observational Items by Pleogia)
2. performance
3. teacher advocate
4. scatter of 11 points or more in WISC or WAIS
5. recommendation of significant others

Gifted disabled student identification and services are still in the emerging and experimental stages. However, it is known that these students exist and adequately funded programs provide opportunity for these students to develop, explore, and internalize a sense of achievement based on individual talent.

References:


Some gifted youths also exhibit characteristics of learning disabilities. Disabilities can mask giftedness or prohibit the identification of both problems and giftedness. As gifted education moves towards increasingly sophisticated identification procedures, it may be possible to include more of these youngsters in programming. Their inclusion will change the character of gifted programming because they have additional special needs which must be met in order for them to learn.

Learning Disabled Gifted
Contributed by Elaine Callaway

According to Cordell and Cannon (1985) learning disabled gifted children are not easily identified for gifted programming. Their intelligence allows them to compensate for learning disabilities. These children may achieve on grade level so they do not qualify for learning disability programs; and they appear too average or even below average so they cannot meet standards for gifted programming. Learning disabled gifted children often fall between the cracks in school systems.

Baum (1990) describes three categories of learning disabled gifted students:
1. identified gifted with subtle learning disabilities
2. unidentified students whose gifts and disabilities may be masked by average achievement
3. identified learning disabled, not identified gifted

The identified gifted with subtle learning disabilities are the easiest to classify because of their high IQ scores. As these students grow older there are wide discrepancies between expected performance and actual performance. Because these students continue to perform at grade level they are often overlooked by screeners that might identify their subtle learning disabilities.

Students that are unidentified as to their giftedness and disabilities have not been noticed as having exceptionalities. They fit in with regular students because their superior intellect works overtime to compensate for their disability. Gifted, learning disabled students often learn about about their disability in college or as adults when they read about problems of learners or compare notes with others discussing their own disabilities.

The last group, identified learning disabled but not recognized as gifted, are identified on what they cannot do rather than their gifts. They are labeled LD, Learning Disabled, or BD, Behaviorally Disordered, even though they may be highly gifted in other areas. Because of their frustration they complain of headaches and stomachaches and are highly disruptive in the regular or special classroom. Creativity is used to avoid confrontation.
Some characteristics attributed to learning disabled, gifted individuals are listed below:

1. high reasoning and verbal abilities
2. specific talent areas
3. discrepant verbal and performance abilities (i.e. WISC-R or Stanford-Binet scales)
4. visual perceptual/fine motor difficulties
5. attention deficit disorders
6. slow response/reaction time; slow to produce work; ponderous thinkers
7. difficulty shifting activities
8. lack of organizational skills
9. deficient or uneven academic skills; frequently high in one area
10. perfectionism and low self-esteem
11. easily discouraged; tend to be inflexible and easily upset
12. vulnerability of social relationships

The following strategies for learning disabled/gifted students lead to improved classroom performance:

1. small class size preferred
2. provision for a variety of assessment and testing methods
3. individualized program
4. maintain a comfortable/supportive environment
5. specific suggestions
   a. avoid open-ended activities
   b. limit choices, materials, completion time
   c. teach through strongest modality
   d. use visual material and color to reinforce retention
   e. eliminate letter grades
   f. avoid overuse of spirit masters
   g. use oral and written directions
   h. encourage problem-solving activities to develop sequential thought patterns
   i. provide enrichment alternatives along with remediation
   j. use mentors
   k. provide time for social skill development

In order to assist these special students, teachers should focus on strengths, interests, and superior intellectual capacities even as they provide remediation for students' weaknesses. The best environment for gifted, learning disabled students is a nurturing one. A nurturing environment values and respects individual differences. “The philosophy fosters and supports interdependence,” according to Baum (1990).

Gifted, disabled students face enormous obstacles; however, with correct identification and thorough, effective teaching strategies these students can become successful learners. Identification and instruction, for these students, should be comprehensive.

References:

Suggested Reading:
Correlations have been noted between behaviors associated with attention deficit disorders and giftedness. Teachers may find it difficult to differentiate between ADD and giftedness. Are overlapping behaviors magnified in children identified as both ADD and gifted? The regular classroom, especially when designed as a general educational setting, does not meet learning needs for dual identified children. The gifted classroom may not either if individual characteristics are not considered carefully when planning learning situations.

**ADD and Gifted**
Contributed by Teri Cranford

There are many similarities between gifted children and children who have Attention-Deficit Disorder. ADD has recently been recognized and therefore not much is certain about its diagnosis and treatment. Although children have been recognized as gifted for quite some time, many people are still ignorant as to the true nature of giftedness.

It appears to be a paradox that children who have ADD can also be gifted. ADD is not a learning disability or even classified under special education. However, when a child suffers from a seeming abnormality people tend to view him or her as having a disability. ADD does not interfere with a child’s psychological processes needed for learning, but with those processes’ availability for learning.

Because hyperactivity can often accompany ADD, medication is frequently prescribed to control the child. Gifted children, also, are often hyperactive though medication is not usually prescribed for them. Since there are many similarities between children who are gifted and those who have ADD, misdiagnosis is possible and could be dangerous. The medication prescribed for ADD children may have undesirable side effects with continuous use.

Distinguishing between a child who has ADD and a child who is gifted is not as easy as it should be. The negative characteristics of children with ADD (or ADHD and ADD without hyperactivity) and children who are gifted often parallel. There are many similarities between the groups (see ERIC Digests #E445, 1987; #E462, 1989; #E476, 1990; and #E522, 1993).

**Negative behaviors associated with children with ADD:**

1. fidgets, squirms, or seems restless
2. has difficulty remaining seated
3. is easily distracted
4. has difficulty following instructions
5. blurts out answers
6. has difficulty awaiting turn
7. has difficulty sustaining attention shifts
8. moves from one incomplete task to another
9. has difficulty playing quietly
10. talks excessively
11. interrupts or intrudes on others
12. does not seem to listen
13. often loses things necessary for tasks
14. frequently engages in dangerous actions

Negative characteristics of gifted children:
1. may dominate others
2. may have difficulty bringing tasks to closure
3. may be impatient with details or restrictions
4. may be considered unusual or silly by peers and teachers
5. may refuse to accept authority and be non-conforming
6. may use descriptive details in excess
7. may interrupt or ignore classroom activities to pursue individual interests
8. may be intolerant of others
9. may become inhibited in sharing information
10. may dominate others
11. may be bored with routine tasks and repetitive tasks
12. may have difficulty relating to peers and adults

The question is how to determine whether a child has Attention-Deficit Disorder, is gifted, or both. Behaviors in the two groups have many similarities, which are in the regular classroom. Medication works fairly well in the treatment of ADD, but it would be a mistake to prescribe medicine for a child not in need of it.

The only solutions when dealing with ADD, gifted, or ADD gifted children begin with appropriate diagnoses. A thorough professional evaluation includes psychological and physical examinations. Continuous behavioral evaluation is also necessary because ADD children typically exhibit their problem behaviors in all settings, whereas gifted children do not.

References:
ERIC Digest #E476 (1990). Giftedness and the gifted: What’s it all about?
Since the inception of gifted programming, discussions about cultural and ethnic diversity have been plentiful. In each cycle of discussion new techniques are tried; yet, for the most part, education fails to move beyond the problem finding aspects of diversity to new solutions. Equity in gifted programming is a difficult problem and a growing one. Our experiences with atypical gifted learners should alert us to the new opportunities to use diversity to generate a dynamic and equitable environment.

African-American Gifted Students
Contributed by Alison Parish

Identification, testing and curriculum development for underrepresented black gifted students present new problems for educators today. Ford and Harris (1990) list barriers to identifying gifted black students including inadequate definitions, theories and procedures. Traditional procedures for identifying gifted and talented black students often fail because the educational system places an over-reliance on standardized test scores, upon which African-Americans typically exhibit low performance.

Torrance (1978) addresses the difficulty of testing so-called “culturally disadvantaged” children stating that these children have difficulty performing successfully on standard verbal tests. He states that many of the testing instruments “cater to children reared in the dominant, mainstream culture, and do not make use of the special strengths of the minority/disadvantaged groups” (p. 302).

Richert (1987) contends that schools need to go further than the identification process with this population. Schools need to develop programs which evoke the African-American student’s exceptional potential.

Van Tassel-Baska (1992) cautions that the talents and gifts of the culturally disadvantaged African-American child are often overlooked or underrepresented in gifted programs. Researchers have identified causes as follows:

1. fewer environmental opportunities that enhance intellectual achievement;
2. the exclusive use of standardized tests as identification tools which reflect middle-class learning styles, majority values and do not reflect exceptional abilities, experiences, cultural styles and values of minority students;
3. the impact of sensory, motor, language, learning or emotional disorders on performance as assessed through traditional measures (Colangelo, 1985).
Khatena (1992) reviews the importance of cultural diversity as a factor in learning. He lists the needs of culturally diverse students for concerned teachers and counselors of the gifted. Psychosocial needs are as follows:

1. recognizing that they are gifted
2. establishing an identity with their own subcultural group
3. making social adjustments between their own culture and the dominant culture
4. coping with peer pressure which discourages success in the majority culture
5. dealing with their weakness in verbal and semantic skills

Cultural diversity is an important factor in a global society. Further, diversity should be taken into account in the education and counseling of the child (Colangelo, 1985).

References:


Ethnic expectations affect the recognition of giftedness both within and across cultures. For that reason, educators lend increasing attention to characteristics of giftedness within America's underrepresented ethnic populations. The search for explanations involves both ethnic participants and mainstream advocates seeking pluralistic representation. It seems likely that instructional settings serving more diverse gifted populations will undergo considerable restructuring.

**Gifted American Indians and Alaskan Natives**
Contributed by Shelbia Hatten

From the earliest knowledge of tribal peoples there have been those recognized as gifted. This recognition was not necessarily nor usually for formal educational purposes. Recognition was accorded to those individuals repeated by virtue of what they could do as peacemakers, religious persons, warriors, orators, planners, healers, singers, dancers and artisans. Individuals were recognized early in their lives and nurtured by parents and tribal members. According to Stuart A. Tonemah (1991), these gifted persons were taught in an environment in which they learned by example, learned at their own pace, learned by discovery, and learned from grandparents, uncles or aunts with whom they shared a symbolic relationship.

The “discovery” of the new world had a devastating effect on the education of American Indians and Alaskan Natives (Tonemah, 1991). Europeans viewed Indians as ignorant and heathen savages who needed salvation and a proper education. This philosophy persisted, for the most part, well into the late 1950s. Boarding schools sponsored or operated by the Bureau of Indian Affairs punished Indian and Alaskan native students for speaking in their native tongue, singing tribal songs, or expressing their tribal identities in any form. It is no wonder that the gifted American Indian or Alaskan Native student was ignored, forgotten and definitely unidentified.

What has changed? Obviously little has changed in many schools. Schools still identify gifted students primarily on the basis of their placement on standardized tests. Most standardized tests still ignore the ethnic background, life experience, and culture of the American Indian or Alaskan Native students. Between 1978 and 1986, the number of American Indian students attending public elementary and secondary schools in the United States increased from 329,430 to 355,796 students. Of the 355,796 American Indian students only 2.1 percent were participants in a gifted program.
while 5.4 percent of mainstream Anglo students were enrolled in gifted programs (Ramirez and Johnson, 1988).

The American Indian Research and Development, Inc. recognized the apparent discrepancy and set about to create the American Indian Gifted and Talented Assessment Model (Tonemah, 1991). This model uses processes and procedures in which multiple criteria are assessed and information used to encourage the development of potential in these students. The process allows students to be nominated by parents, school, community, tribe, peers, or themselves. Once a student is nominated, a case study approach is used to determine the student's eligibility for the gifted program. The case study involves a screening process that utilizes a biographical data questionnaire and a review by a panel which includes Indian educators, gifted educators, school administrators, and tribal representatives.

Identification of gifted American Indian and Alaskan Native students is very important in an egalitarian society. However, if these students are identified only to be placed in a mainstream gifted program it is probable that they will not succeed and most probably will be at great disadvantage (Christensen, 1991).

Rosemary Ackley Christensen participated in a program administered by the Indian Education Department from 1976 to 1991. The program, Niibin, provided a strong academic focus within a culturally specific environment. Only gifted Indian students participated in Niibin. The program was based on daily parental involvement, brought Indian tribal Elders into the classroom, and employed bilingual Indian people. The Niibin project determined that parental advice, Elder counsel, and Indian groupings are positive ingredients in the implementation of a successful gifted program for Indian students.

Identification and teaching of gifted students from diverse ethnic groups presently is a high profile concern in some school systems. Surely we must not ignore or forget the contributions that gifted American Indians and Alaskan Natives make in our society. The identification process and resulting programming must allow for the awakening of vast potential that lies within these people.

References:


Young females are typically at risk of underachievement in modern society. The characteristics that empower girls and women in the classroom and the workplace are often at odds with the social expectations of friends and family members. Females may have to choose between achievement and advancement outside of the home and a secure position in the eyes of those from whom they seek approval. We can identify gifted females while they are young; paradoxically, identification is more difficult after that period. Much research suggests that we need to identify girls very early in their school careers.

Gifted and Female
Contributed by Alecia Hammack

Educators are concerned with the choices that bright, young girls make and what motivates them. In the rural South, traditional views towards women's roles and careers are creating pressures which vie within the subconscious of gifted females.

At Charleston Southern University, located in South Carolina, the issues facing Southern belles are explored in an innovative summer enrichment program funded under a grant from the United States Department of Energy and the Eisenhower Foundation. The award funds a two year summer program designed to meet the needs of middle school students gifted in science and math (Karnes-Bone, 1992).

It is a matter of choices for these young women. A choice made by a young girl in junior high school may have a lifelong affect. Young women need to begin early to develop significant career skills. They need to support themselves and to contribute to stronger, more stable, family units. With single parent households increasing dramatically these days, they may be future heads of households.

Project Director Dr. Clyde Odom designed the Carolina program for young girls in rural areas of the state. The program provides academic instruction, individual attention and role models with the hope that these young girls would eventually move into challenging and rewarding careers in mathematics and science in the twenty-first century.

Historically, women have been undervalued for their intelligence and opportunities for them to develop skills have been thwarted by the many interruptions of raising a family. Ochse (1991) maintains women are more likely to need social and intimate contacts which lead them from career development. In order for women to be successful they must be more single-minded in their pursuit of a career.
Characteristics listed by Ochse (1991) as exhibited by eminent female creators are as follows:

1. strong motivation
2. single mindedness
3. perseverance
4. devotion to work
5. dedication to excellence in work
6. absorption in work continuing for a long period of their life
7. persistence (the most salient characteristic)
8. willingness to exert, the perspiration Edison claimed is 99% of genius
9. tendency to work alone
10. over sociability

Osche also lists factors actors relating to career motivation which he associates with the maturing, achieving gifted girl:

1. early development of values relating to intellectual achievement
2. precocious development of some intellectual skill
3. high standards
4. teaching others to meet those standards

James (1991) posited that young girls need much individualization in the kindergarten setting, especially when abilities such as reading, advanced calculations, number recognition, writing, and creating have been successfully fostered in the home. Intellectual stimulation begins in the home. Girls learned in the past to value achievement as hobbies, but to consider real achievement in motherhood and nurturance. Ironically, creative achievement was sometimes equated with specific skill achievement. Perhaps through the education of current generations, they and their children will have a greater chance for achievement in all areas of their lives.

References:


ATYPICAL GIFTED LEARNERS
AND THEIR CHARACTERISTICS

HANDOUT NO. 9
PREPARED BY TEACHERS OF THE GIFTED FOR WILLIAM CAREY COLLEGE
READ M. DIKET, PH.D. AND TRUDY ABEL, PH.D., EDITORS

The Marland Definition identifies six groups of children capable of high performance. Children talented in the visual and performing arts, representing a portion of a “minimum of 3 to 5 percent of the school population,” are described as among those requiring “differentiated educational programs extending services beyond those normally provided in regular school programs” (PL 91-230, section 806, 1972). Unfortunately many such students are not served because of funding limitations at the state and local level. Given the current stress on test scores, one sees more programs serving students with intellectual ability or academic aptitude than serving students with artistic abilities. (Ross, 1993).

Artistically Gifted
Contributed by Read M. Diket

Artistic talent, in order to develop potential more fully, should be identified early in children. School districts seeking to identify potential for outstanding performance in the arts use variations of the following definition: “Artistically talented students are those who originate, produce, perform, or respond at an extraordinarily high level in one or more of the visual and performing arts (in comparison to others his or her age)” (Hanson, 1983, p. 33). Clark and Zimmerman (1992) suggest that artistically gifted students are best identified using multiple criteria considered in the context of cultural values. At best there is a moderate relationship between general creative abilities as currently tested and specific art talent (Milgram, 1990). Other identification possibilities include personality profiles, interviews, observations, portfolio reviews, with intelligence/achievement tests.

Characteristics of artistically talented (gifted) students include the following (after Hanson, 1983, p. 33-34):

1. ART
   - has accumulated many art works (usually drawings)
   - shows originality in behavior or art work
   - is willing to experiment with materials, techniques, and experiences
   - uses art to express experiences and feelings
   - is interested in artwork by others
   - displays ease and dexterity in creating art work

2. MUSIC
   - spends extra time in musical activity
   - plays musical instrument well or sings confidently
3. DANCE
- enjoys participating in movement activities
- has well developed motor coordination
- moves with ease and assurance
- exhibits sense of rhythm
- displays high energy level
- remembers movement patterns and sequences

4. DRAMA
- possesses ability to dramatize feelings and experiences
- characterizes roles of people, animals, objects by facial expression, voice, gesture, and movements
- imitates others, mimics people and animals
- improvises and moves dramatic situation to well-timed climax
- enjoys evoking emotional responses, loves an audience
- writes original plays or dramatic stories

Suggestions for meeting the needs of artistically talented students include the following (drawn from Ross, 1993):

1. design challenging curricula, set appropriate standards and evaluation procedures
2. provide advanced material in talent areas, along with flexible pacing and a variety of outcomes
3. push talent programs downward in the educational system so that potential, especially in poor and minority children, is identified and developed from an early age
4. broaden the definition of giftedness so as to serve artistically talented students
5. emphasize teacher proficiency in talent areas, especially content/performance and pedagogy
6. examine programs from counterpart nations around the world

The two prominent goals of programming for artistically gifted students are (1) opportunities with audiences and (2) interaction with professionals in the talent area. Programs increase in specificity as the talented student progresses in an arts area.

References:
Gardner's multiple intelligence theory recognizes musicality as a form of giftedness. For schools that seek to address the particular needs of those with potential for high performance in music, educators target early indicators. Potential for exceptional musical ability eludes both simplistic definitions and measurement instruments. Potential may be recognizable through its manifestation as negative behavioral traits associated with high creativity. The challenge to teachers lies in channeling the creative energy towards musical production while promoting life skills.

Musically Gifted
Contributed by Janet Wade

Potential for exceptional musical performance is not easily defined or measured. Although there are valid tests of certain aspects of musical skills, such as aural discrimination and notational knowledge, identification of the musically talented still relies heavily on the educated observer. A willingness to recognize certain patterns of behavior and to value the product, and processes, of a musically creative imagination are integral to work with musical atypicality.

Recognition of musical aptitude is difficult enough with "normal" students. Atypical students, those highly gifted in music, present special problems growing out of psychological, emotional, and sometimes physical causes. The atypical musically talented student may present some, if not all, of the following negative traits (at least initially):

1. dislikes routine and drill
2. can be highly self-critical
3. may be stubborn, uncooperative, even insolent
4. has difficulty accepting criticism; takes it personally
5. has difficulty following directions
6. does not like detail work such as technical drill
7. can be extremely self-destructive at times

The atypical musically talented student may not be a model student. "Students who enjoy creative experimentation do not fit neatly into the convergent patterns set in the essential drill and practice of musical training" (Haroutounian, 1992). A lot of these students are loners with low self-esteem and little or no motivation to do well in traditional social and academic areas.
Music, some of these students say, is the only thing that matters to them. Music is what keeps them sane. Although this imbalance is not healthy, it does present a starting point for a dedicated teacher confronted with such a student (also see, Jankowski and Jankowski, 1976).

On the positive side, these atypical musically talented students can possess some of the following traits (also see, Khatena, 1992):

1. has ability for intensive concentration
2. enjoys experimenting and creating
3. is emotionally sensitive
4. has great appreciation for gaining knowledge which advances his/her musical ability
5. is inquisitive and persistent

The atypical musically talented student can be prickly and overly sensitive, and they may not respond appropriately at all times. However, a persevering teacher has a chance to uncover a gold mine of creative, imaginative energy. Channeling that energy is a challenge well worth the time and patience required for success.

References:


It can be helpful in working with gifted populations to identify specific intelligences. Often students learn to extrapolate from a major processing mode to, less often used-modes of input and expression. Linguistically gifted students may perform well on the types of instruments used to identify giftedness; nevertheless, it is not good pedagogy to ignore their linguistic potential by assuming that their needs are already being met in the gifted classroom.

**Linguistically Gifted**
Contributed by Tina Wheat

It is a known fact that deaf individuals can acquire natural language. This serves as proof that linguistic intelligence is not simply a form of auditory intelligence.

Linguistically gifted students are usually well-read. They have, as a result, been exposed to different styles of writing, and have been constantly bombarded by visual imagery and new vocabulary.

Seeing different styles of writing and correct grammar usage put into practice encourages them to become better writers and communicators. Furthermore, students who are widely read usually obtain a broader and more interesting way of expressing themselves. They are much more fluent in their speech than some peers, and can usually explain an idea or procedure in a more precise, clear-cut manner.

Linguistically gifted students usually grow even more attentive and sensitive to phonology, the sound of words. They also acquire good syntax, the order and arrangement of the words on the paper. This acquired skill helps the linguistically gifted student to produce a good, clear message in a less wordy way than their peers.

Resources:


Julian Stanley’s work with mathematically precocious youth heightened awareness of early giftedness as it appears and is fostered in very young people (see Stanley and Benbow, 1982). Because mathematical skills in individuals evolve over time and are cumulative in nature, classes designed for the mathematically able students often must meet the needs of students variable at the high end as those found in regular classrooms. Teachers may observe a few students at the top of the class exhibiting exceptionally developed ability. Because students at various levels often must be taught concurrently, their instructors are challenged to push the levels of proficiency on a student by student basis.

Mathematically Precocious Students
Contributed by Brenda Broadhead

Teaching in itself is a challenge. When, however, mathematically precocious students are a part of the teaching assignment, the responsibility becomes more intense and demanding (Useem, 1991). The students require a curriculum that allows them to gain skills beyond their working ability.

Benbow and Stanley (1983) state three principles important to teaching precocious youth: (1) learning is a sequential and developmental process, (2) large differences exist in learning status among individuals at any given age, and (3) effective teaching involves assessing students’ status in the learning process and posing problems that slightly exceed their level of mastery.

As a teacher of mathematically precocious students I find these students’ desire to meet the challenge before them. They exhibit characteristics as follows:

1. competitiveness
2. exactness
3. the desire to achieve
4. self-motivation
5. an uncertainty of one’s self

The classroom takes on a two-fold purpose as a place to acquire mathematical knowledge and skills and a place to become comfortable with self as one who excels in math.
Main goals of a high school gifted program, according to Maker (1982), that apply to the needs of gifted math students are as follows:

1. to improve the learning environment through curriculum and the implementation of specialized approaches
2. to work with students, staff, parents, and others who influence the educational process so as to develop programs that challenge and motivate gifted students
3. to help students acquire adequate and realistic self-concepts and to become aware of educational and occupational opportunities available to them
4. to facilitate students in problem solving, decision making and communication that will allow them to accept the responsibility for their own actions and choices

References:


