

Invisible Gifts, Invisible Handicaps

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Far more gifted children suffer from learning disabilities than anyone realizes.

When gifts and handicaps exist in one individual, they often mask each other so that the child may appear "average" or an "underachiever." Thorough diagnosis is necessary to detect major discrepancies between strengths and weaknesses. In clinical assessments many gifted children have been found to have auditory sequential processing impairments. This syndrome results in difficulties with phonics, spelling, rote memorization, timed tests, and handwriting. Spatial strengths are often seen as a means of compensation. Gifted programs need to become "handicapped accessible." Specific suggestions are given for modifying instructional strategies to enable these children to be successful in regular classes and in the gifted program.

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It appears to be a well-kept secret that a child can be both gifted and handicapped. This is due to the prevailing view that equates giftedness with high levels of performance in all academic areas. Teachers often find it incomprehensible that a child could have difficulty learning to read and still be gifted (Wolf & Gygi, 1981). However, giftedness can be coupled with learning disabilities — and this dual exceptionality occurs more frequently than we realize.

The problem is that when two exceptionalities exist in one child they tend to mask one another so that neither the giftedness nor the disability is immediately evident. Disabilities depress these children's IQ and achievement scores, disqualifying them for gifted programs; in addition, high intelligence enables them to compensate well enough for their weaknesses to maintain grade

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level expectations, which prevents them from being detected as learning-disabled or qualifying for special education services. Catch 22! In our zeal to compute "averages" of people's abilities, giftedness and handicaps cancel each other out, leaving these children to appear "average."

The information in this article was gleaned from the clinical analysis of 1400 test protocols at the Gifted Child Development Center over the past ten years. My Ph.D. in learning disabilities enables me to discern patterns in gifted children resembling the subtlest scatter seen in profiles of learning-disabled youngsters.

Underachiever or Learning-disabled?

The most fertile ground for unearthing learning-disabled gifted children is among underachievers. Tannenbaum (1983) likens underachievement to a skin rash, since its description tells nothing of its cause. A review of the literature supports the wisdom of his metaphor. The following list of characteristics of underachievers, from Joanne Whitmore's (1980) classic text, *Giftedness, Conflict and Underachievement*, aptly describes the majority of underachieving gifted children:

- Perfectionistic
- Supersensitive
- Lacks social skills
- Socially isolated
- Has unrealistic self-expectations
- Low in self-esteem
- Hyperactive
- Distractible
- Has psychomotor inefficiency
- Chronically inattentive
- Frustrated by the demands of the classroom
- Fails to complete assignments
- Excessively critical of self and others
- Rebellious against drill and excessive repetition
- Disparaging of the work they are required to do
- Become "an expert" in one area and dominate discussions with their expertise

If we take a second look at this list, we discover an interesting paradox: studies of learning-disabled gifted children (cited in parentheses) have produced an identical set of characteristics.

- Perfectionistic (Rosner & Seymour, 1983)
- Supersensitive (Maker, 1977; Pendarvis & Grossi, 1980; Schiff, Kaufman & Kaufman, 1981; Tannenbaum & Baldwin, 1983; Wolf & Gygi, 1981)

- Lacks social skills (Baldwin & Gargiulo, 1983; Osman, 1979)
- Socially isolated (Schiff, Kaufman & Kaufman, 1981)
- Has unrealistic self-expectations (Maker, 1977; Wolf & Gygi, 1981)
- Low in self-esteem (Daniels, 1983; Pendarvis & Grossi, 1980; Schiff, Kaufman & Kaufman, 1981)
- Hyperactive (Tannenbaum & Baldwin, 1983)
- Distractible (Schiff, Kaufman & Kaufman, 1981; Tannenbaum & Baldwin, 1983)
- Has psychomotor inefficiency (Rosner, 1983; Schiff, Kaufman & Kaufman, 1981)
- Chronically inattentive (Tannenbaum & Baldwin, 1983)
- Frustrated by the demands of the classroom (Tannenbaum & Baldwin, 1983)
- Fails to complete assignments (Tannenbaum & Baldwin, 1983)
- Excessively critical of self and others (Maker, 1977; Tannenbaum & Baldwin, 1983; Wolf & Gygi, 1981)
- Rebellious against drill and excessive repetition (Tannenbaum & Baldwin, 1983)
- Disparaging of the work they are required to do (Tannenbaum & Baldwin, 1983)
- Become "an expert" in one area and dominate discussions with their expertise (Rosner & Seymour, 1983; Tannenbaum & Baldwin, 1983)

The lists of key characteristics of learning-disabled gifted children and gifted underachievers derived from various studies are virtually identical. This may seem less surprising when one realizes that both populations have been identified through discrepancies between performance on measures of aptitude and achievement, and thus the groups overlap. The significant question is, when we are looking at a student who won't do the work, how do we know we aren't actually seeing a child who can't do the work? Too often adults have been quick to misjudge these children as simply "lazy," a label damaging to their self-esteem and less than helpful in determining the actual cause and potential solution to the problem.

Every underachieving child deserves a thorough diagnostic battery by a qualified diagnostician to determine if there is any evidence of learning disabilities. This does not imply that all underachievers should be served in special education; on the contrary, most can be served in regular or gifted classrooms with a few modifications of instructional strategies. But those modifications are

unlikely to take place — or may be inappropriate — if we do not first determine the cause of the skin rash.

School

Subtest Scatter

In the last ten years at the Gifted Child Development Center in Denver, Colorado, we have found over 200 children who fit the category "learning-disabled gifted." This is approximately one-sixth of the total number of children who have come to our center for assessment of giftedness. Their giftedness was evident in the high scores they achieved on the Vocabulary, Similarities and Block Design subtests, and on the abstract, verbal and spatial reasoning portions of standardized intelligence scales. Their disabilities became apparent in the large discrepancies between their strengths and weaknesses (particularly weaknesses in the sequential domain).

The subtest scatter shown in Figure 1 is fairly typical for this group of children. When age level norms cut through the center of the profile, as shown in the top dotted line, these children are diagnosed as learning-disabled. And if they are performing two years below grade level, consistent with their low scores in Arithmetic, Digit Span and Coding, they are entitled to special education provisions. But what if the age and grade level norms shift to the bottom dotted line, while the profile

remains unchanged? This is the typical situation for learning-disabled gifted children who are able to function at or above grade level. These children are not detected as learning-disabled, nor do they receive special services. They are completely overlooked.

Learning-disabled gifted youngsters appear to have a rather characteristic pattern of abilities and disabilities on the WISC-R. In a landmark study of this population (Schiff, Kaufman, & Kaufman, 1981), the subjects showed a mean discrepancy of 18.6 points between the Verbal (V) and Performance (P) IQ scores on the WISC-R, in favor of the Verbal domain. This discrepancy is approximately twice the V-P difference found in normal children (9.7). However, it is insufficient to simply compare Verbal and Performance scores when assessing this population, due to the fact that there are extraordinary strengths and unusual weaknesses in both domains (as can be seen in Figure 1), which can average out in the composite scores.

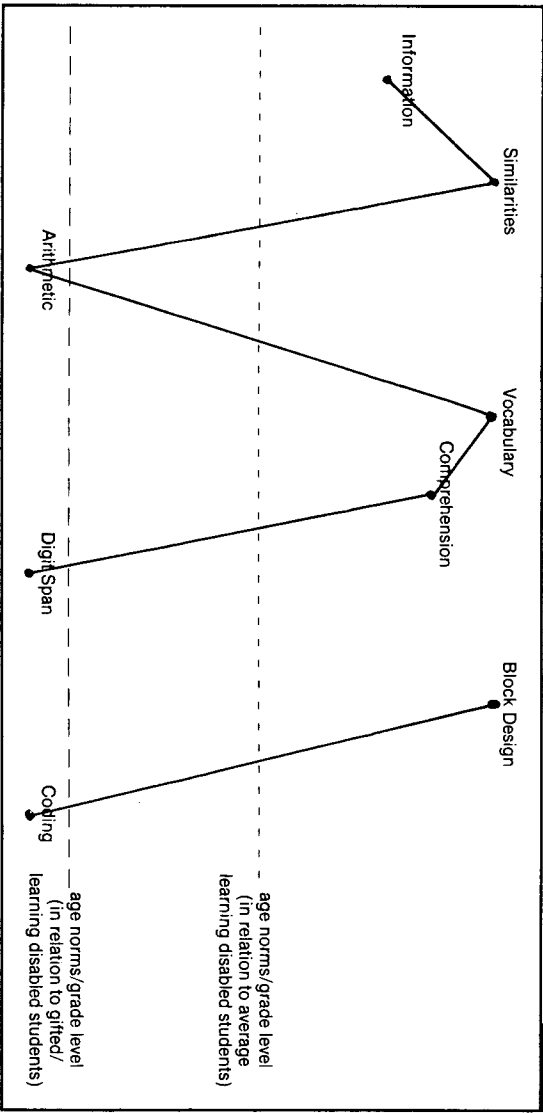
As in our cases, the subjects in Schiff, Kaufman and Kaufman's study were poor in Digit Span, Coding and Arithmetic, and high in Similarities, Vocabulary and Comprehension. The three subtests in which they had deficiencies form a category known as the Freedom from Distractibility factor (Cohen, 1959; Kaufman, 1975). However, Bannatyne (1974), in his well known recategorization of WISC scaled

scores, pointed out that all three subtests require sequencing ability, and renamed the cluster the Sequencing category.

In a study conducted by Fox (1983) of 432 gifted children with reading disabilities, the strengths and weaknesses of the sample closely matched those reported by Schiff, Kaufman and Kaufman (1981). The subtest scatter of the gifted/disabled group was significantly greater than that of comparison groups. The greatest differences were between Similarities and Digit Span, with girls also showing appreciable differences between Comprehension and Digit Span (conceptualization vs. sequencing).

In our records, we typically see discrepancies of 3 or 4 standard deviations (9 to 12 points) on the WISC-R between high and low subtest scores of learning-disabled gifted students. A difference of 7 scaled-score points between highest and lowest subtests is considered significant at the .05 level of confidence (Satler, 1982). An example from our case files is the student who scored 19 on Block Design (Spatial Reasoning), the highest score possible, and 6 on Digit Span (Sequencing) — a difference of 13 scaled score points. The Block Design score is at the top of the gifted range, whereas the Coding score is well below average. Several of our cases have had discrepancies of this magnitude.

Figure 1
Subtest Scatter of Gifted/Learning Disabled Students on WISC-R



Spatial Strengths and Sequential Weaknesses

The subtest discrepancies we have seen are paralleled in school performance. A particular constellation of strengths and weaknesses has emerged as the most dominant pattern observed in gifted students with specific learning disabilities.

Potential Strengths

- Is extraordinarily capable with puzzles and mazes
- Has a sophisticated sense of humor
- Has high abstract reasoning ability
- Is excellent at mathematical reasoning
- Has a keen visual memory
- Has an unusual imagination
- Is highly creative
- Comprehends complex relations and systems
- Has penetrating insights
- Shows exceptional ability in geometry and science
- May have artistic, musical or mechanical aptitude
- Grasps easily metaphors, analogies, satire
- Has good problem finding skills

Potential Weaknesses

- May have difficulty with phonics
- May have difficulty with spelling
- May have difficulty with rote memorization
- May have difficulty with computation
- May perform poorly on timed tests
- May seem spacey and inattentive
- May have illegible, labored handwriting
- May "forget" homework or submit work of poor quality
- May act first and think later
- May be poor at biology and foreign languages
- May doze during classtime instead of listening

The extraordinary abilities we have seen in the spatial domain may have developed as a means of compensation for the sequential weaknesses noted. These children tend to take intuitive leaps, grasp extremely complex material, excel at mathematical and scientific reasoning, and demonstrate high levels of creativity. However, they show weaknesses in all the sequential skills (e.g., phonics, computation, spelling, handwriting), rote memorization of nonmeaningful material (e.g., math facts, biology terms or dates), and performance under timed conditions. These weaknesses are often viewed by their teachers as evidence that the students are not "really gifted."

Traditional Instruction tends to be sequential, with each new concept building on the previous concepts taught. Elementary education, in particular, is focused on the mastery of sequential skills. By way of contrast, children who are more spatially oriented grasp concepts all at once rather than step-by-step. Once they understand a concept, the learning is fairly permanent, and they fail to see the point of doing 5 or 100 problems just like the first one. They have difficulty breaking down words into phonetic components and reconstructing them. Spelling is usually a disaster. Their handwriting is often poor and appears labored. They are not well organized. They do poorly on timed tests. They may have difficulty showing their work because they devise their own methods of problem solving instead of following the prescribed sequence outlined in the textbooks. They often use a more intuitive approach, apprehending the whole (the "gestalt") rather than the parts. Such children are usually not the teacher's favorites.

show superior abilities in class discussions, higher level mathematics and science, computer programming and graphics, Odyssey of the Mind groups, and metaphorical thinking. Schiff, Kaufman and Kaufman (1981) found that "many of these uneven gifted youngsters exhibited talents in art, music, poetry, electronics, business, and the sciences" (p. 403). Frequently their problems are confined to the school setting, and they may show little if any concomitant problems at home (Baum, 1984; Baum & Kirschenbaum, 1984; Tannenbaum & Baldwin, 1983). During school hours their performance is poor, while outside the school environment these same children demonstrate keen motivation to pursue highly creative hobbies and interests.

Paradoxical Learners

Tannenbaum (Tannenbaum & Baldwin, 1983) has labeled these children "paradoxical learners," a term which fits them quite well: the harder the task, the better they do. It's the easy work they can't master. Their paradoxical performance on our IQ tests is intriguing. Intelligence tests are devised to progress from simple to complex items, and typically children will pass items at a particular level of difficulty and then fail the harder items. But learning-disabled gifted children often fail the easier items and then pass the more difficult ones. This type of performance is most unusual and violates principles of test construction. For example, several children were unable to repeat

5 digits, but could repeat 6 digits correctly! We had one child who failed almost all the items at the eight-year-level and then passed all the items at the nine-year-level. We've had five-year-olds who failed 3 out of 6 subtests at the five-year-level and then passed almost every item at the nine-year-level.

These students are also paradoxical in that oftentimes they appear to get smarter as they get older. Many disabled learners and spatially oriented learners suddenly blossom at puberty (Dixon, 1983). I have been surveying the parents of these children — those who exhibited the same pattern of strengths and weaknesses in childhood — to see if they consider themselves "late bloomers." Almost all of them reported doing better in high school than in elementary school, and if they went to college, doing better in college than in high school. They frequently use metaphors such as, "It was as if my brain woke up when I was a sophomore in college and I could do things I couldn't do before."

Most of these parents were successful in adult life in a variety of fields from business to technology. The late blooming phenomenon seems to be holding up in these interviews, although there is no consistency about the age of blooming! The range is anywhere between second grade and 36 years old.

Part of the therapeutic intervention with these families is attempting to enlist the support of the parent who learns most like the child. Sometimes that parent is hostile toward the child. Typically it has been a father-son dyad, and the son provides an unpleasant mirror of the father's own childhood. I help the father to see that he is his son's major role model and that his success in adult life holds out hope for his son that he, too, can overcome the obstacles. I suggest that the father can be a good teacher for his son since he learns in a similar way, and that the father can actively teach his son methods of compensation that worked for him. This change in family dynamics has proven to be ameliorative for many children and their parents.

The Importance of Discrepancies

The realization that these children had specific learning disabilities came about as a result of close examination of discrepancies of all kinds: between scores on different tests; between performance on certain subtests or types of items within a test; between behavior at home and at school; between strong and weak subjects; even between IQ scores of siblings. Our battery consists of either the Stanford-Binet Intelligence Scale (Form I-M) or the Wechsler Intelligence Scale for Children-Revised

(WISC-R), the Structure-of-Intellect Learning Abilities Test (SOL), the Wide Range Achievement Test (WRAT), and the Perceived Competence Scale for Children (Harter, 1979). The battery enables us to systematically compare performance on various parts of tests, such as mathematical reasoning scores on the SOL with computation scores on the WRAT, digits presented auditorially and visually on the SOL; and so forth. Clusters of strengths and weaknesses have emerged through these analyses.

When we see major discrepancies (more than 1 standard deviation) between the IQ scores of siblings, this signifies that closer scrutiny is needed. From our research with 148 sets of siblings (Silverman, 1988), we have found that family members tend to be quite close in IQ, usually within 5 or 10 points of each other (36% within 5 points and 61% within 10 points). Looking more carefully at the "nongifted" child in a gifted family has led to the discovery of several hidden learning-disabled gifted children.

- We also investigated a group of children who fit the characteristics of giftedness but did not test in the gifted range. We developed a screening tool (Silverman & Waters, 1984) to determine the probability of a child's score falling in the gifted range. In reviewing the records of 1,047 cases, we found that if parents felt that their child fit % of the following characteristics, the child tested in at least the superior range (120 IQ or above) 84% of the time (Silverman & Waters, 1987, unpublished raw data):
1. Good problem-solving abilities
 2. Rapid learning ability
 3. Extensive vocabulary
 4. Good memory
 5. Long attention span
 6. Sensitivity
 7. Compassion for others
 8. Perfectionism
 9. High degree of energy
 10. Preference for older companions
 11. Wide range of interests
 12. Excellent sense of humor
 13. Early or avid reading ability
 14. Ability in puzzles, mazes or numbers
 15. At times, seems mature for age
 16. Perseverance in areas of interest (Silverman & Waters, 1984)

The test protocols revealed that the majority of the "nongifted" children had marked disparities between their strengths and weaknesses, reminiscent of the profiles of learning-disabled children but at a higher level of functioning (Silverman, Chitwood & Waters, 1986). Their strengths appeared to be in

abstract conceptualization, vocabulary, verbal reasoning, and visual-spatial relations, whereas their weaknesses clustered in items requiring auditory sequential processing. For example, almost all of the "nongifted" group had difficulty repeating a series of five digits forward. Many could not repeat a simple sentence, remember the names of characters in a short paragraph, or even tell the days of the week in order; yet, their spatial skills were well beyond age level expectancies, showing extraordinary facility in items such as reproducing complex designs with blocks, counting arrays of blocks (with several of them hidden), maze tracing, orientation problems, copying abstract forms, and visualizing how various cuts in folded paper would appear when the paper is opened.

Auditory Sequential Processing Dysfunction

Recognizing that all of the difficult items had an auditory component, we began to inquire of parents if the children had had any hearing impairments or if there had been a family history of hearing disorders. We discovered that the majority of our cases had had chronic otitis media (ear infections with fluid in the middle ear) during the first few years of life, sometimes beginning as early as 2 months of age (Silverman, Chitwood & Waters, 1986). Prolonged periods of faint and distorted auditory input caused by the ear infections may have interfered with the full development of auditory sequential skills.

- Feagans (1986) found that if children suffer more than nine ear infections in the first three years (only 3 per year), later on they may experience difficulty attending in class, comprehending stories, learning phonics, and succeeding with school tasks. The first three years of life are the most crucial since this is when children learn how to learn. The age of onset of otitis media appears to be the most significant factor: the earlier the onset the more serious the effects. The symptoms of auditory processing dysfunction are as follows:
- 1) asks to have directions repeated
 - 2) misunderstands what is said
 - 3) mispronounces words
 - 4) puts hands over ears in noisy situations
 - 5) talks very loudly
 - 6) does not hear name called when playing or concentrating
 - 7) mispronounces some sounds of letters
 - 8) cannot sound out words effectively
 - 9) makes letter reversals at eight or nine

- 10) spells words according to their shape, not their sounds
- 11) leaves out endings of words in writing
- 12) leaves out small words in writing
- 13) has difficulty memorizing (such as math facts)
- 14) daydreams after 10 minutes of oral instruction (Silverman & Waters, 1986)

Not all children who exhibit the symptoms of auditory sequential processing dysfunction have had chronic otitis media. Those who had no such history had parents who suffered from the same sequencing dysfunction, indicating that there is often a hereditary component. Surprisingly, in the majority of our cases, both the ear infection history and the familial history were present.

Guidelines for Identifying Gifted Handicapped Children

The following guidelines can assist school districts in locating hidden gifted handicapped learners.

1. Distribute lists of characteristics of gifted children with learning disabilities to teachers and parents (e.g., chronic underachievement patterns, noticeable discrepancies in performance among different skill areas, etc.)
2. As a regular part of the diagnostic evaluation of all children referred for emotional problems or learning difficulties, search for signs of special abilities — particularly verbal and spatial talents.
3. Interview parents about special talents, interests, developmental milestones and health history of the child.
4. Provide a large assessment battery, including an individual intelligence test.
5. Look for discrepancies in performance (e.g., between scores on different tests; between scores on different subjects or items within tests; between behavior at home and at school). Does the child fall the easier items and pass the more difficult ones?
6. Trust that the higher scores reflect the children's abilities and conduct further testing to determine if the lower scores are indicative of disabilities.
7. Assess comprehension of orally presented material and compare with reading mechanics. Assess mathematical analysis abilities and compare with computation skills. Assess ability to repeat number sequences presented visually and auditorially. Notice how the child performs under

timed and untimed conditions.

8. Observe children during free time activities. Prepare structured observations to assess special strengths and difficulties. Observe how they respond to various types of adaptations: visual presentations, inductive strategies, meaningful materials, high interest activities, computers, and more challenging curricula.

Selection for Gifted Programs

1. Allow these children entrance into the gifted program, at least on a probationary or "guest" basis, to see if they are capable of achieving higher level work. Use techniques to assist them in being successful (see list below).
2. In selecting learning-disabled gifted children for gifted programs, weigh heavily any indications of ability to compensate for their handicap. Also place extra weight on the child's performance in areas unaffected by the disability.
3. Cut-off scores should be dropped 10 points for talk into accurate depression of scores due to disabilities.
4. If possible, the child's test scores should be compared with those of others who are similarly handicapped rather than with norms for non-handicapped children.
5. Develop individualized educational plans for all gifted children with learning disabilities, involving parents, the gifted education specialist, educators who specialize in the disability, diagnosticians, regular classroom teachers and the child himself.

Successful Teaching Strategies

Learning-disabled gifted children generally thrive on abstract concepts, inductive learning strategies, multidisciplinary studies, holistic methods, and activities requiring synthesis — just what they are likely to get in a gifted program. However, certain modifications are needed to assist them. They remember what they see and forget what they hear; therefore, it is necessary to show them rather than just telling them. The following simple adaptations can be used at school and home to enhance school success.

Specific Strategies for Success

1. Get eye contact with the child before giving directions.
2. Limit the number of directions presented.
3. Write directions on the board, on overheads, or on paper.
4. Let the child observe others before

5. Use visuals and hands-on experiences.
6. Touch the child's shoulder to get attention when he does not hear you.
7. Place the child near you and away from distracting noise.
8. Provide a quiet place for the child to work.
9. Use a sight approach to reading rather than phonics.
10. Use a visualization approach to spelling:
 - a) Show child the spelling word.
 - b) Have her close her eyes and picture the word.
 - c) Have her spell the word backward with her eyes closed.
 - d) Have her spell the word forward with her eyes closed.
 - e) Have her write the word.
 - f) Use a kinesthetic approach, such as sand tracing or sandpaper letters, with young children.
11. Have someone teach the child how to type; let him type assignments on a computer or typewriter.
12. Use fantasy books rich in visual imagery to enhance interest and ability in reading.
13. Have the child discover his own methods of problem solving.
14. Give the child advanced, abstract material, even when she has difficulty with easy, sequential material.
15. Avoid rote memorization. Use more conceptual approaches.
16. Avoid timed tests. If they are required, allow the child to take them at home or alone, trying to beat his own past record, rather than competing with his classmates.
17. Use material that has high interest for the child.
18. Engage the child emotionally through encouragement.
19. Use humor frequently in instruction.
20. Concentrate on the child's strengths. Help her find ways to be successful, in spite of her weaknesses. Remediation (repetitive practice of tasks that the child finds difficult) has a poor track record for children over 9 (Richards, 1991).
21. Use adaptive techniques that assist the student in devising methods of compensating. The following are some examples of adaptive techniques that work:
 - a) Buy a spelling guide, such as *The Bad Speller's Dictionary* (Krevisky, 1985).
 - b) Use a word processor with a spell correct program.
 - c) Use earphones to block out noise when studying.

- d) Make lists to help remember things.
- e) Practice visualization as a memory aid.
- f) Use rhythm and music to aid memorizing.
- g) Tape record lectures instead of taking notes.
- h) Estimate answers before calculating.
22. In severe cases of auditory dysfunction, children will need even more assistance in order to be successful, such as:
 - a) Use a calculator for computation.
 - b) Have another child take notes for him.
 - c) Dictate assignments on a tape recorder.
 - d) Take oral tests instead of written ones.
 - e) Hire a private tutor who teaches to the child's learning style.
23. Assure these children that they will get smarter as they get older, and as the material becomes more consistent with their learning style. Many disabled learners suddenly blossom in puberty. Most adults compensate well for auditory weaknesses, and excel in areas such as computer technology, aeronautics, physics, art, architecture, music, and research mathematics.
24. Expose children to role models of successful gifted handicapped adults through films, videos, biobiotherapy, speakers, and class discussions. (See Baker, 1970; Coetzee & Coetzee, 1962; and Whitmore & Maker, 1985, for case studies.) Find gifted mentors who have learning disabilities to work individually with the children. Engage the parent whose learning style is most like the child's to become the child's advocate and teach him successful methods of compensation.

These modifications have enabled many children at the Gifted Child Development Center to be successful and happy in school for the first time. As the children became aware of their learning style, they were able to view their differences as potential strengths, and they learned how to compensate for their weaknesses. Many learning-disabled gifted children have been badly wounded in the traditional system. The damage to these children's self-esteem can be healed if they have the chance to work with caring, sensitive teachers who recognize their potential. Children respond to those who believe in them.

Conclusion

Hollingworth (1923) described the needs of this special population 65 years ago, but interest in gifted children with learning disabilities began to mount only a decade ago, concurrent with the pressure for legislation in America to protect the rights of the handicapped. We are now in an era where the words "handicapped accessible" are emblazoned on the consciousness of most Americans. But we have still not made gifted education "handicapped accessible." Gifted children with learning disabilities are systematically kept out of gifted programs all over the world. Restrictive entrance requirements based upon budgetary concerns rather than concerns for the welfare of children have made it very difficult for us to recognize and ameliorate this situation. Instead of allowing learning-disabled gifted children to fall through the cracks, it is time to begin looking under the floorboards and providing the types of intervention sorely needed for this population. This is the challenge of the next decade.

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Identification of Giftedness in Severely and Profoundly Hearing Impaired Students

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Nonverbal measures of IQ, teacher nominations and parent nominations were used to identify giftedness among severely and profoundly hearing-impaired students enrolled in a school for the deaf or a public school system. It was found that while teachers and parents tended to nominate the same students, both groups of nominators missed some intellectually gifted students. On the whole, no statistical correlation was found among the three identification procedures. Hearing-impaired children were judged to exhibit characteristics of giftedness very similar to those of their hearing peers, with the exception of academic achievement.

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