Dumbing Down of Giftedness

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Publisher’s Perspective

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The field of gifted education is, and always has been, volatile.....or rather vulnerable.....perhaps both.

I have participated in the struggle for its development and acceptance as a real and credible educational field—in partnership with countless parents of gifted children; tireless advocates seeking to obtain funding, personnel, resources for this special group; and committed educators trying to improve and expand curriculum for advanced students who learn faster, need challenge beyond the ordinary, and have unique social/emotional needs. All of these parents and educators are, in the words on the cover of Understanding Our Gifted: “Dedicated to helping gifted children reach their full potential.”

In the more than 30 years that I have worked for and with gifted kids, I have encountered situations such as the following:
• Parents worrying that their children will become “ungifted,” unhappy, dropouts, and even suicidal
• Schools and districts taking so long to plan and implement identification procedures that the children grow up and out of the system without being challenged or understood
• Children, gifted in one or two areas but not across the board, not qualifying for help in the gifted program
• An exodus of highly gifted children to private education and homeschooling, abandoning public education because of the uncertainty of consistent gifted programming

On the positive side, I have also encountered the following:
• Dedicated teachers who work to give all children challenge at levels appropriate to their needs, and work to develop a positive sense of self for each child
• Tireless parents who, rather than complaining, ask, “What can we do to help our children’s education?”—and then do it....whether it means donating time in the library, preparing materials to relieve a teacher’s load, or offering their own talents to share in the classroom
• Educators—administrators as well as teachers—who, in spite of limited time and funding, commit themselves to learning about gifted children and their needs through professional reading and attendance at conferences and seminars

On the corner of my desk I keep a well-worn copy of Nation at Risk, a 1983 report of the National Commission on Excellence in Education. The words jump out at me with an unfortunate ring of truth, even today: “Our Nation is at risk...the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people.”

Has gifted education been watered down?

The world of gifted education is controversial, and we have encouraged writers in this “Dumbing Down of Giftedness” issue, to take a stand, expressing views on whether or not the meaning of giftedness has been diluted over the years. Join our discussion. What are your suggestions and concerns?

Contact editor Carol Fertig cfertig@earthlink.net.
The False Security of Inclusivity

James R. Delisle

You can always slay imaginary dragons with equally imaginary swords.
Eysenck, 2000

For more than two decades, intruders have infiltrated the domain of giftedness. Disguised as experts and scholars, they have tried to take the idea of giftedness and spread it among the many, rather than the few. They have invented new categories of intelligence and dismissed the concept of a general intelligence as anachronistic, discriminatory, and naive. They have advocated that the strategies used to teach gifted children be applied to all children. This, by implication, diminishes the need for separate gifted programs. They have equated giftedness with scholarship and achievement, causing the term “gifted underachiever” to become oxymoronic. In other words, they have left in a lurch the very children for whom this field was founded.

Shame on them—but worse, shame on us—because these “leaders” could not have succeeded without our help. Sad but true, the biggest reason that schoolwide enrichment options have proliferated and “multiple intelligences” have become sacrosanct is that we—everyday gifted advocates—have allowed this to happen.

How did we get here? How did we fall so far from the ideals of Lewis Terman and Leta Hollingworth, our field’s founders? Is there any way out of the educational backwater into which gifted education has drifted? Unless we examine these issues honestly, the plight of our nation’s gifted children in our schools will become even worse than it is today.

A Little Light History

Sir Francis Galton (1869), who lived from 1822 to 1911, had his inquisitive scientific fingers in many pots: geography, statistics, fingerprint classification, and genetics, to name several. A genius himself, he is the person most responsible for making intelligence a scientific and measurable concept. From his 19th-century view, intelligence was a general cognitive ability—indeed, the most influential one in determining a person’s life success.

Incorporating Galton’s work, Alfred Binet (Wolf, 1973), whose life span was from 1857 to 1911, had his inquisitive scientific fingers in many pots: geography, statistics, fingerprint classification, and genetics, to name several. A genius himself, he is the person most responsible for making intelligence a scientific and measurable concept. From his 19th-century view, intelligence was a general cognitive ability—indeed, the most influential one in determining a person’s life success.

Incorporating Galton’s work, Alfred Binet (Wolf, 1973), whose life span was from 1857 to 1911, was commissioned by the French minister of instruction to devise a method for identifying “subnormal” children in the schools of Paris. His result? A test—first developed in 1905—that calculated how well a child could complete tasks that most children of the same chronological age could do easily. Thus, if a child of 10 could perform tasks usually completed by a child of 7, the 10-year-old was considered subnormal. But when a child of 7 completed tasks ordinarily completed by a child of 10, this child’s mental abilities were deemed to be superior. A formula developed by German psychologist William Stern (“Mental Age” divided by Chronological Age X 100) came to be called an intelligence quotient—IQ—that allowed children to be compared to age-mates relative to their cognitive processing.
Lewis Terman brought these findings to America, resulting in the development of the Stanford-Binet Intelligence Test conducting what is, to date, the most expansive longitudinal study of giftedness ever undertaken—Genetic Studies of Genius. More than 1,500 children whose IQs averaged 151 were examined for decades. A subgroup—those with IQs above 170 (77 individuals)—were examined to see if they were performing at the "genius" levels that were indicated by their IQs. Terman concluded that even with their plethora of patents, books, plays, essays, and scientific papers, no true genius emerged from this select group of high IQ individuals. He reached this conclusion because none had received a Nobel Prize by age 40.

Joseph Renzulli became intrigued with Terman’s later findings in devising his own view of “gifted behavior” in 1978. Renzulli concluded that the traits of above average abilities, creativity, and task commitment had to coalesce in order to achieve prominence. He used Terman’s own research to bolster his views. From this stance, Renzulli proposed that one need not be in the top 1 percent of the IQ scale to be gifted—in fact, in Renzulli’s view, IQ by itself mattered little. In the intervening years, Renzulli came to suggest that between 15-25 percent of a given population were capable of gifted behaviors, spawning schoolwide enrichment programs that served a wide array of students, often with IQs as low as 115 (Renzulli & Reis, 1985).

When Howard Gardner came along, he dismissed the concept of general intelligence entirely and invented the Multiple Intelligences model (1983), advocating that there are at least eight separate and independent intellects that can be measured. A high IQ mattered little in Gardner’s view, as it predicts little in life other than how well you will do on another IQ test.

Why all this history? Because without an understanding of the fundamentals of where we have been in the realm of intelligence and giftedness, it is difficult to comprehend fully the absurdity of today’s errant views of these concepts. Let me explain through....

A Little Dissection
In taking a closer look at Renzulli’s conclusions, it is obvious that he picked and chose those elements of Terman’s work that bolstered his own nascent ideas of what gifted behavior looks like. Thus, even though Terman suggested that many personality characteristics differentiated between the most and least successful of his high IQ subjects, Renzulli chose only two to incorporate into his view of giftedness: task commitment and creativity. However, Terman had also mentioned the importance of positive self-concept, self-confidence, common sense, sociability, and even physical attractiveness in the makeup of a successful gifted person. Why no mention of these in Renzulli’s definition? Their omission is curious and remains unexplained. Further, even the lowest level of IQ tested among Terman’s subjects was 135, yet Renzulli contends that those without such superior IQs often perform gifted behaviors. Well....sorry, you can’t have it both ways. You can’t say that slightly above average IQs (115-130) are the breeding grounds of giftedness by using research done on people with IQs of 135-200 to bolster your claims!

In considering Gardner’s view of multiple ways to be intelligent, there are two elements that many individuals consider important in digesting a new theory: convenience and simplicity. Unfortunately, these elements alone do little to bolster Gardner’s dubious claims of the existence of at least eight separate, non-overlapping intelligences. Hans Eysenck, a professor of psychology at Maudsley Hospital in England and the author of more than 70 books, faults Gardner for not even attempting to correlate his eight intelligences, concluding that Gardner “never provides any empirical evidence for his esoteric and quite unrealistic notions. No wonder he gained high academic acclaim and a strongly partisan following—you only have to attack the IQ to become famous and popular, however nonsensical the attack, and however weak the alleged evidence for your own systems!... You can always slay imaginary dragons with equally imaginary swords” (2000, p.109).

What we are left with, then, with these two views of giftedness and intelligence, is more opinion than truth—more conjecture than evidence. “New and improved,” giftedness is now doled out democratically to anyone who fits Renzulli’s or Gardner’s opinions of what giftedness “looks like,” even if the bases for their theories are, at best, suspect.

The Negative Effects of Theory on Practice
It may have been inevitable that the advent of these more inclusive views of giftedness would have a direct effect on gifted programs nationwide. Under Renzulli’s Revolving Door plan (1982), and its subsequent Schoolwide Enrichment (1985) derivatives, any child in the top 20 percent (or more) of a school population is seen as potentially capable of gifted behaviors. This group—and, indeed, sometimes every student in a school—would be offered all types of enrichment and exposure experiences. For the ones who shout, “Me! Me! I want to learn more!” there would be a chance to work on a project that proved just how smart they were—in Renzulli’s parlance, a “Type III project.” Once the project was completed, it became someone else’s turn to act gifted, and this first enthusiastic child would return to the “talent pool” and wait his or her turn before diving in again to do
This utilitarian view of giftedness allowed a larger percentage of children to receive services from the gifted specialist, relieving many school administrators and making many more parents happy and proud that they now had gifted children. However, when incorporating this more inclusive model of gifted programming, the number of gifted specialists in a school seldom increased, due primarily to the high cost of personnel. The result? The intensity of services that had previously been offered to children in the school’s top 5 percent decreased dramatically (How could it not?). The net for catching gifted children may have been cast wider but—under this plan—into more shallow waters.

Certainly, there are benefits to a system that offers enrichment to many children and that allows a wide variety of students to pursue their passions through projects. However, it is hardly a model that serves the needs of children who are gifted in the way that Terman, Hollingworth, and Eysenck saw them. Indeed, questions arise about the many gaps in Renzulli’s propositions—questions like the following:

- Aren’t there levels of giftedness just as there are levels of mental retardation? And, if so, shouldn’t we provide different types of targeted services to children who are at the more extreme ends of the intellectual spectrum? Just imagine if children with IQs of 35 were receiving the same program offerings as children with IQs of 70. The outcry of unacceptability would be universal and appropriate. The same logic applies for children with IQs of 115 and those with IQs of 145, yet where is the outcry?

- Renzulli’s research on gifted behaviors was done by analyzing the lives of eminent adults, yet his program model is applied to children. Isn’t there a possibility that some eminent adults produced very little in childhood? What gives Renzulli (or anyone) the right to say that gifted children’s needs are best met in a program that sees giftedness as a behavior instead of as a cluster of inherent traits? You can’t claim certainty without proof. Which leads to…

- Where are the comparative studies that show which is more effective: a “gifted behavior” approach to programming or a more traditional one where children are selected on the basis of their intellectual traits? Which children are more “successful” as adults? Which are happier? Which are more professionally and personally fulfilled? Does either group attribute their current status, in part, to their gifted program? Certainly, there are enough children who have gone through both types of programs that some comparisons can be made as to the relative strengths of each option.

- Some highly capable children dislike school because of its routine and tedium. Some even become discipline problems or end up failing academically. How are these children served, intellectually and emotionally, in an enrichment program based on production? Is such a child served at all if she is not yet ready to undertake a project? If so, how? If not, at what cost to the child?

- Many early and current advocates believe that gifted children have particular social and emotional needs that are best addressed in a setting with others who may share these needs. Further, many children who have participated in gifted programs remark on the benefits of finally locating an intellectual peer group as one of the program’s most important and lasting impacts. How can these issues be addressed under a schoolwide enrichment program based primarily on performance and production?

Since the adoption of schoolwide enrichment options, there has been a broadening of services to all children and a paucity of services for identified gifted children. Rather than serving as a beneficial enhancement of an extant gifted program, schoolwide enrichment has been used as a reason (excuse?) to replace the separate provisions previously offered to a school’s top 5 percent of its students. Is the trade-off worth the cost? As advocates of gifted children, whether they produce a project after project or never complete a single thing they start, it is a question that we can no longer ignore.

Even more insidious than the schoolwide enrichment provision is what has happened as a result of the Multiple Intelligences movement. Since (according to Gardner) children are intelligent in many different ways—mathematically, verbally, musically, kinesthetically—teachers should allow children to show their abilities through a variety of avenues—writing, song, dance, etc. In doing so, children are tapping into their unique intelligence, allowing almost everyone to excel in some way.

A couple of observations apply here. First, ever since schools began, good teachers have taken advantage of their students’ individual strengths by allowing them to show what they have learned via multiple ways. But, until Gardner’s foray into schools, most teachers simply saw these as learning style preferences focusing on how you learn best. These were not seen as separate intelligences; rather, they were noted for what they were—and are: vehicles for sharing whatever abilities one has.

A second observation is that Gardner’s work has been used as a legitimate-sounding reason for school administrators and boards of education to dismiss gifted programs as superfluous and, therefore, unnecessary. “After all,” is the retort, “we do Multiple Intelligences education in our
school so that every child is getting served appropriately.” The end result, similar to what has happened with schoolwide enrichment provisions, is a diminishing of services for children who are gifted in the archaic, 19th-century, all encompassing kind of way. These children, the ones who were the basis of our field’s founding, have never been more underserved.

I wish I could state that I believe in the truth of what Renzulli and Gardner have to say. For sure, my professional life would be easier if I agreed with the loud and growing chorus of educators who espouse these views about serving gifted children.

But I don’t agree. I can’t agree. And as much as I never entered this field to be a thorn in the side of the prevailing orthodoxy, that’s exactly where I find myself.

How much easier it would be if I believed that every child was gifted in some way! Yet I know this is not true, just as every child is not a star athlete, just as every child is not “retarded in some way,” just as every child is not blond, brown-eyed, or five feet tall. Differences exist among people, both obvious and subtle, and any attempt to erase these distinctions is not a sign of our society’s sensitivity and insight, but rather, its shallowness and naiveté. Endorsing artificial equality is more harmful than admitting natural differences. The greatest good is never served by pretending a lie is the truth.

A Few Steps Back
Of course, it is easy to criticize but much more difficult to offer solutions and alternatives. In an attempt to give some concrete suggestions for improved services to gifted children, I defer to one of my forebears, Leta Hollingworth, for guidance. Hollingworth learned most of what she knew about gifted children by working with them in the New York City Schools in the 1930s. Arguably, Hollingworth is best known for her book, Children above 180 IQ: Stanford-Binet (1942). Still, much of her work in the classroom setting was done with gifted children whose IQs were far lower than 180+, though still superior.

First and foremost, Hollingworth saw the needs of gifted children as encompassing the social and emotional realms, including such issues as the need to
• learn about giftedness and how it impacts everyday life situations
• learn coping strategies for school lessons and experiences that are intellectually numbing
• get assistance in coping with the frustration of having few age-mates who share your interests

Her list is more expansive than this, yet even in this abbreviated format one thing is obvious: There is no way the above concerns can be adequately addressed in a schoolwide enrichment program where children are only gifted by the products they display. Instead, here is my blueprint for taking a few steps back in order to ensure that gifted children are served appropriately in our schools.

1. Identify children who are in the top 5 percent of a school population, as determined by a valid intellectual assessment, and get them together for a minimum of one full day per week. Even children of different grades and ages benefit when they are brought together with other children of “like minds.” It is in a setting like this that the concerns proposed by Hollingworth can be addressed in open and valid ways.

2. Differentiate the level and types of educational services received by children, depending on the extent of their measured abilities. Think football here: every high school offers varsity, junior varsity, and intramural squads on the gridiron. Depending on ability, athletes receive different levels and intensities of service (coaching) and they are encouraged to compete with others of like ability. One school’s varsity team never plays another school’s intramural athletes head-to-head, because it is understood that such a match-up would be unfair and inappropriate. This is equally true in intellectual gamesmanship: the same activity that is challenging for an “intramural” gifted child is insufficient for a “varsity” gifted child.

3. Offer educational services to gifted children that capitalize on their innate abilities with little regard to product development. Somewhere along the way it has been forgotten that the accumulation of knowledge or insight is, in itself, a valid product. Discussing world politics does not have to result in a mock peace treaty in order to prove successful. Reading the poetry of Sylvia Plath to better understand the roots of loneliness may be beneficial even if the only visible product is a student’s private diary. Children need to know that production is a limited vision of success, and that it applies more to adults than to them. As a young person, the absorbing of knowledge and
insight is one of their tasks. Giving it back can come later.

4. **Identify giftedness based on potential, not production.** The term underachievement is both overused and ill defined. What is common, though, is for students who are not performing up to a particular level of adequacy to be dismissed from a gifted program until they “shape up.” This shortsighted solution benefits no one, and it tells the gifted child that he is appreciated only conditionally. A preferable alternative is to keep these children involved in a gifted program—especially if it is obvious, through observation, that they are benefiting from it—and seek a solution to their academic dilemmas through discussion, counseling, or other means that address the situational and inner reasons for the child’s low performance.

**Conclusion**

Sisyphus was given the daunting task of pushing his boulder up a steep, steep hill. Again and again it fell; again and again he pushed it back up. Some would call him stubborn or slow, his efforts pointless. Others might question why he didn’t just take as truth the fact that he would never succeed and place his efforts elsewhere, realigning his priorities.

Personally, I prefer to call him dedicated—dedicated to a purpose that he alone understood fully.

For advocates of gifted children, these past two decades must have felt like they were sharing Sisyphus’ lot. Try as they might to get gifted children recognized for who they are as people rather than what they can do as “production assistants,” their efforts have been stifled, their boulders rolled back upon them. Perhaps now is the time to try again—together, as advocates—to combine our efforts to regain for gifted children the place they rightly deserve in our society, our schools, and our hearts. Indeed, considering the sad state of our gifted programs nationwide due to schoolwide enrichment options and the mantra of Multiple Intelligences, there is no other alternative than to try, together, to roll that boulder to the top of the hill, and to roll it back down the other side.

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**References**


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**The Wisdom of Leta Hollingworth—1922**

When we hear repeatedly from various people that a given child is ‘old for his age,’ ‘so reliable,’ ‘very old fashioned,’ ‘quick to see a joke,’ ‘youngest in his class,’ or that he has ‘an old head on young shoulders’ or ‘such a long memory,’ we usually find him to be highly intelligent, by test.

A child of 130 IQ is a very bright member of his group in kindergarten; a rather bright member of his group in high school; and but an average member of his group in a first-rate college. His intellectual quality does not change, but his group of competitors becomes more and more highly selected, creating the illusion of retrogression on his part.

Should all children who test very high, as regards intellect, be educated for science, for the professions, and for the direction of industry? Should society induce some of them to join the manual trades, as hand workers? Should unskilled labor be drained by educational policy more thoroughly than it now is drained by competition, of all first-rate intelligence? These are disturbing questions of consequence, which affect the educator.

Schools cannot equalize children; schools can only equalize opportunity. It may be well thought to be highly undemocratic to provide full opportunity for the exercise of their capabilities to some, while to others the same offering means only partial exercise of their powers. It is hard for a psychologist to define democracy, but perhaps one acceptable definition might be that it is a condition of affairs, in which every human being has opportunity to live and work in accordance with inborn capacity for achievement.
We don’t dumb down the concept of giftedness. We don’t require gifted students to conceal or moderate their achievements. Both in the United States and in my country, Australia, we praise, encourage, and foster giftedness and spend enormous sums of money promoting it.

Of course, we are selective.

Ten years ago, in Exceptionally Gifted Children (Gross, 1993), I reported on the first decade of a longitudinal study I am conducting of 60 exceptionally and profoundly gifted Australian children and adolescents. I wrote of my concern about the very different values which Australian society (and American society, for that matter!) places on academic talent compared to talent in the “entertainment” fields of music and sports. I illustrated this through the story of “Sandie,” a remarkably gifted young woman who was then in elementary school.

By the time she reached her 11th birthday, Sandie had developed as an extremely talented and acclaimed young pianist. Although she had been studying for only three years, she had already passed the grade 8 exams, and her teachers had informed her parents that she was one of the most gifted students they had ever taught. For the past year the prestigious private school that she attended had featured her in the senior school concerts, performing with students six and seven years older. She was the first elementary school student to be “honored” in this way.

Another of Sandie’s talents was swimming. She was a member of competitive swimming squads both within her school and with a community sports association. She was, indeed, exceptionally talented, and the school permitted her to swim in teams comprised of students some years older. At age 10, she was invited to train for her state swimming squad, but declined as it would have interfered with her music and her other great love—short story writing.

In both music and athletics, Sandie’s remarkable talents were recognized and fostered. Society, and her school, permitted her to feel a justifiable pride in her successes. Perhaps this was because the school and her swimming squad benefited directly from her visibility. To put it bluntly, Sandie made them look good! In addition, it is socially acceptable in Australia to excel in sports and music.

However, Sandie has a third area of talent which neither society nor her school were willing to acknowledge. She is exceptionally gifted intellectually with an IQ of more than 160. Fewer than one child in 10,000 scores at this level. Her remarkable intellectual capacity is accompanied by outstanding mathematical and verbal abilities. At age 11, her reading comprehension was already at the 12th-grade level. Yet Sandie’s school, rather than fostering her intellectual abili-

* With apologies to George Orwell, a gifted man who foresaw the dangers of politically mediated social values....
ties as they developed her musical and athletic talents, insisted that Sandie undertake the same math and language curriculum as the other 11 year olds.

The following passage forms part of a “Gothic romance” which Sandie wrote when she was 11 years old. The language, punctuation, and spelling are exactly as Sandie wrote them.

Just before this scene, the hero, Jonus, proposed marriage to the heroine, Adeline, who is many years older than he is.

‘No, child. I couldn’t marry you. You know better than that.’

Jonus stared into her face, feeling as if he had had a blow across the head with a metal bar.

‘Child?’ he murmured.

He pulled himself together and said, ‘Then I must go away. Forever.’

Adeline watched as he hung his head and trudged back to his home, his whole body limp and exhausted with all the emotional strength draining out like water. She sighed slowly and went into her house.

Jonus sat in his green kingdom of leaves and grass. He glanced at his body. It was thin and bony from malnutrition and too much exercise. These last few days he had tried to empty his head of all the memories of his home town. He concentrated on the woodpecker which was pecking at its tree and the squirrel which was collecting nuts for the winter.

The atmosphere engendered in this vignette, and the restraint maintained in the two characters’ expressions of emotion, are quite remarkable, given that the writer is a child in elementary school.

Of the 60 young people in my study, 16 are now attending universities or have already graduated; the others are younger. They live in cities, towns, and country centers throughout Australia. Their names, including Sandie’s, have been changed to protect the identities of members of the group. The young people themselves have chosen their pseudonyms.

Sadly, the case of Sandie is not an isolated instance. More than 75 percent of the children and adolescents in my study learn a musical instrument, and more than half of them learn two instruments. None of them, including Sandie, displays a musical talent that is at as high a level as their academic potential; nevertheless more than half of them are described, by their instrumental or vocal teachers, as having unusually high levels of musical aptitude.

Hadley began to learn the recorder at age 8, but after a few weeks his teacher promoted him to a group of 10-year-olds, who had all been studying for two years. His teacher noted that he mastered the work with ease. Later he studied flute and clarinet and played first clarinet in the senior orchestra of his secondary school, despite being three years younger than most of the other players. At age 15, he served as chair of the organizing committee, which managed the orchestra’s interstate tour.

By age 6, Roshni astonished her piano teacher with her musicality, her remarkable memory, and the speed with which she mastered new work. At 8 years old, Alice’s choir teacher told her parents that she had an exceptional ear for music and outstanding potential as a singer. Both girls were promoted to learn and perform with students several years older.

Like Sandie, many of these exceptionally gifted children are recognized by their schools for their musical talents. At the same time, their exceptional academic abilities, which are of an even higher order, are quietly ignored.

Richard is a talented flautist. He also displays unusual ability as a composer. At the age of 10 he had one of his flute compositions used as a test piece in a master class for adult musicians at the Conservatorium of Music in his state. His musical aptitude has been identified and fostered; he has been permitted to progress, both in performance and composition, well beyond the levels normally attained by a student of his age.

He is also a brilliant chess player and, by age 11, was playing on his school’s most senior, and most elite, chess team. He competed with and against first class chess players (many of whom are several years older) from schools across Australia. At no time was it suggested that the program of radical acceleration designed by the school for him in chess would damage him intellectually or socially. Indeed, the school took great pride in his achievements.

Richard’s other major talent is math. His early math development was quite phenomenal. At the age of 4, he amazed a professor of mathematics at a major university by doing arithmetic mentally in binary, octal, and hexadecimal. However, the attitude of Richard’s school towards his math achievement was dramatically different from their attitude towards his abilities in music and chess.

At the age of 12 years, 6 months, Richard took the Scholastic Aptitude Test-Mathematics (SAT-M), which is normed on American high school seniors. The SAT was used as an above-level test because
Richard scored at the ceiling of every previous math assessment he had been given. Richard gained a phenomenal 780 marks out of a possible 800. Fewer than 3 in 1000 American high school graduates could hope to make such a score. Yet, regardless of his SAT results, which were shared with his teachers, he was required to work lock-step on 7th-grade math with the other 7th-grade students.

Richard’s school stated that it did not believe in accelerating students beyond their grade level; acceleration, they claimed, could result in social and emotional damage.

Anastasia, by age 8, had emerged as an excellent pianist and a talented singer. As well as fostering her musical talents within the school setting, her school arranged for Anastasia to audition for a prestigious girls’ choir, an audition that she undertook with conspicuous success.

Yet Anastasia’s phenomenal language abilities were largely ignored. Like the considerable majority of the children in my study, Anastasia learned to read long before she went to school. Indeed, she was reading short books at the age of 3, and by the time she entered school she had the reading abilities of a 4th-grade student. At age 7, her reading accuracy and reading comprehension were that of a 12-year-old, and she was reading, with great enjoyment, books such as Richard Adams’ *Watership Down*. By age 8, she was reading *Les Miserables*. Having seen the musical, she wanted to read the book! The problem is—Anastasia had to read the same books as her 8-year-old classmates. Not surprisingly, having so little in common with the other children, she had little to talk to them about. She had read the books they liked years before. The books she liked were utterly incomprehensible to them. Anastasia’s teacher frowningly told her parents that she was unsociable.

My American colleagues who have a special concern for highly gifted students report similar findings from their own studies. Why, in both our countries, do we “dumb down” the talents of academically gifted students through developmentally inappropriate curriculum and developmentally inappropriate grade placement, while we enthusiastically foster high potential in athletics and the performing arts?

To paraphrase the famous quote from *Animal Farm*: in Australia and the United States “all gifts are equal but some gifts are more equal than others.” We foster that which we value or have been taught to value.
Mentorships—Highly talented young athletes are often taken under the wing of an older player who will coach them on strategy and on psychological issues within the sport. Talented young musicians may have the opportunity to take master classes.

Sustained and rigorous practice—It is accepted that a structured and rigorous regime of practice is essential if the gifted young musician or athlete is to develop his talent.

Pride in achievement—Talented musicians and athletes are encouraged to feel pride in their gifts and strive to develop them.

Opportunity for comparison—Sports teams are matched with each other on the basis of ability and achievement, allowing healthy competition and social comparison. Similarly, music festivals allow talented young musicians and singers to match themselves against others of similar ability. Festinger (1954) showed that a realistic evaluation of our achievements is only possible when we are given the opportunity to compare our performance against that of other people whose abilities are similar to ours.

The Dilemma of the Gifted Underachiever

Since the early 1970s, educators have been concerned by the level of underachievement in academically gifted students (Rimm, 1997; Reis & McCoach, 2000). Alarmingly, the more highly gifted the student, the more serious his or her level of underachievement is likely to be (Gross, 1993).

It is not a matter of laziness. The majority of these gifted young people would happily work at their true level, if only they were permitted. Richard loathed having to repeat in 7th grade the math he had taught himself when he was in 3rd grade. Anastasia would have given anything to find a group of friends at school with whom she could discuss her enjoyment of the verbal humor and the animal characterizations in *Watership Down.*

Sometimes the gifted student deliberately decides to underachieve in an attempt to gain peer acceptance. Because of the Australian tendency to “cut down the tall poppies,” this problem is particularly acute. If students choose to soar academically, they may find themselves ostracized by their classmates. Alternatively, the gifted student may decide that having friends is more important than succeeding academically, and she may deliberately conceal her talents and work at the level of the majority of the class, for the sake of acceptance by her peers (Gross, 1989).

The majority of the exceptionally gifted young people in my longitudinal study admit that for much of their schooling they deliberately underplayed their academic talents in the classroom, fearing that they would be rejected by their classmates if they displayed the full extent of their abilities. The children’s parents are aware of their underachievement and are deeply concerned. “She deliberately holds herself back to fit in with the others,” said Sandie’s mother. “Many times she does not want me to teach it to her, as she knows she will be bored stiff at school when the rest of the class is taught the subject.”

Why Hold Back the Academically Talented?
The education of gifted children in our two countries is hampered by the predominance of social myths and misconceptions, many of which center on the harm which will supposedly arise if a child’s academic talents are recognized and fostered.

Talented young musicians and athletes are permitted to progress at their own pace, training and performing with older students when this is appropriate.

Let us return to the strategies we looked at earlier, which are used to foster the talents of musically gifted students, and examine the reasons that educators generally give for not employing these strategies with students who are academically gifted. Keep in mind, as we do this, that these reasons are not supported by empirical research and, in general, are strongly contradicted by it.

Acceleration—Few teachers would express concern that these students might be exposed to social or emotional damage from working with older students at a level so far beyond that normally attained by age-peers. However, the staff of the students’ schools frequently vetoes proposals that a 3rd-grade student should go to the 4th-grade classroom for English or that a 7th-grade student should do math with 9th graders, on the grounds that accelerating the student will lead to social or emotional distress in later years.

Ability grouping—It is accepted that for optimal development of their talents, highly able young musicians need the opportunity to work with ability peers. However, classroom teachers regularly argue that withdrawing academically gifted stu-
dents from the regular classroom disrupts the class, makes the gifted students conceited, damages the self-esteem of less able students, and removes from the class the students whom the teacher relies on to help the less able (Benbow, 1998). It is noteworthy that these arguments focus not on the needs of the gifted student but on the perceived needs of his or her classmates.

**Mentorships**—It is rare for an academically gifted elementary or secondary school student to have structured access to an adult who has high level expertise in his or her field of talent.

**Sustained and rigorous practice**—Many teachers will refuse to give an academically gifted child more challenging work to do at home for fear that he will be “pushed too hard.” Indeed, it is often assumed that “the pressure” to excel is coming from home, even when the child is visibly passionate about her field of talent.

**Pride in achievement**—As discussed earlier, many teachers are reluctant to acknowledge outstanding academic talent for fear of fostering conceit or even arrogance. The need to receive validation of one’s achievements is seldom acknowledged.

**Opportunity for comparison**—It is not unusual for schools to choose not to develop programs for academically gifted students on the grounds that this might encourage a “competitive” spirit in the student body.

My comments are not intended to be cynical. I was a classroom teacher and school administrator for more than 20 years, and I have the deepest respect for the profession of teaching. I am aware that the majority of teachers who put forward the arguments I have noted above are utterly sincere in their beliefs and see no contradiction in their attitudes. The majority of teachers have received virtually no pre-service or in-service training on how to recognize or respond to highly able students in their classes. In the absence of factual information, they turn to the prevailing social myths, not recognizing them for what they are.

The belief that academic acceleration will cause social or emotional harm is extremely pervasive in both our countries; yet 50 years of empirical research have found no record of social or emotional damage resulting from well-run acceleration programs where the child’s emotional and social readiness are taken into consideration, as well as his or her intellectual talent (Daurio, 1979; Kulik & Kulik, 1984; Southern, Jones & Stanley, 1993; Gross, 1992, 1993, 1998; Cronbach, 1996). By contrast, research suggests that we should be more concerned for the maladaptive effects of years of bore-

dom, under stimulation, and intellectual frustration on academically gifted students trapped in a lockstep curriculum.

If all gifts were truly equal, equal time and effort would be devoted to identifying and fostering them. We would commit equal funds to the development of talent in academic subjects as we do to the development of talent in athletics and the performing arts. Young people talented in math, science, or English would receive an individually designed and paced, developmentally appropriate, curriculum.

But sadly, all gifts are not viewed as equal, and some gifts are indeed “more equal than others.” As long as this remains so, we will foster the gifts that entertain us in the short term while restraining and “dumbing down” the others.

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As a doctoral student in educational psychology, I remember one of my professors sharing the following statement: “In gifted education, there are many questions, but no easy answers.” As I pursued my degree, immersed myself in readings, and consulted in schools and with the Office for Civil Rights, I found myself thinking often of this statement. Today, over 10 years later, it still comes frequently to mind. Our field is wrestling with many issues as we endeavor to meet the needs of students with varying needs, varying types of giftedness, and varying levels of giftedness: How do we define giftedness? How many students should be identified as gifted? How do we effectively assess and serve gifted students, highly gifted students, underachieving students, and gifted minority students? Do we have to “sacrifice” excellence for equity in assessment and services? Do we have to “water down” or “dumb down” assessment and services to increase racial and economic diversity in gifted programs? These are questions that, in some ways, keep our field from moving ahead and from more strongly advocating for culturally and economically diverse students.

There are many issues facing our field of gifted education, particularly as they relate to racially diverse students (Ford et al., 2002). Gifted minority students often lie at the center of the debates regarding gifted education assessment, placement, and services—surrounding testing, “dumbing down,” “watering down,” and “excellence versus equity.” Attitudes appear to lie at the heart of this debate. In working with educators who are resistant to change, I have repeatedly heard the following:

- “If we make allowances for this group, some people will be upset.” (This is often an example of preserving the status quo and a fear of white flight. Substantive changes, therefore, are not made. Band-Aids are applied to gaping wounds.)
- “If we make an exception for one group, we’ll have to do this for everybody.” (Doing things differently is equated with making an exception, which is considered “unfair.” Therefore, no changes are made.)
- “If we make changes, we will water down what we have now.” (This statement is at the heart of the excellence versus equity debate. “Different” is equated with “substandard or inferior.” Changes are not made.)
- “If we have to do something different with you, something must be wrong with you.” (Therefore, you have the problem, not me. So there is no need for me to change anything.)
- “If we have to do something different for you, you won’t succeed.” (This assumption is often made when different tests are proposed. It is argued that students might not be successful in the gifted program because of a different test being used. A sub-assumption is that there is something wrong with the newly proposed tests. The subsequent reasoning is that one should not risk the student being unsuccessful. Nothing is done.)
- “If it works for me, it should work for you.” (This is a self-centered assumption that fails to consider that children are indeed different. The focus is on the needs of the individual making the statement or on the group that he or she is seeking to protect, not on the needs of the other person or group. Thus, if a certain test is appropriate for one group, it is appropriate for another. No change is made.)

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• “Nothing is wrong with the way we are doing things; I like how we do things now.” (In other words, we may need to change, but we don’t want to. And we don’t.)
• “We’ve always done it this way.” (So why bother changing?)

Attitudes also help educators to shape definitions, choose assessments, and create policies and procedures (Ford et al., 2002). Given that gifted education is not federally mandated, school districts have flexibility in defining giftedness as they see fit. Of the over 600 school districts nationally, it is theoretically possible to have over 600 definitions of giftedness. Therefore, what is defined, perceived, and valued as giftedness in one school district may not be considered gifted in another school district. Further, between 1972 and 1993, the federal government has had four different definitions of giftedness, with the 1993 definition being drastically different from previous definitions. According to this definition:

Children and youth with outstanding talent perform or show the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience, or environment. These children and youth exhibit high performance capacity in intellectual, creative, and/or artistic areas, and unusual leadership capacity, or excel in specific academic fields. They require services or activities not ordinarily provided by the schools. Outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavor.

(U.S. Department of Education, p.26)

This definition distinguishes itself from prior federal definitions in several ways. First, the definition does not use the word “gifted”; instead it focuses on “talent.” Second, the definition focuses not only on demonstrated ability, but also “potential.” In doing so, it recognizes that some gifted (i.e., talented) students come to school with academic experiences and exposure learned while at home, such that they demonstrate their talents, while others may be quite talented, but have limited academic experiences and exposure. These externally imposed limitations can (and do) effectively hinder children’s performance. Focusing on potential and talent development allows educators to consider earnestly the needs and potential of gifted underachievers, gifted students from low socioeconomic status (SES) backgrounds, and gifted students who are racially and linguistically diverse. Third, the definition notes that we must recognize many types of talent, not just ability and potential in the academic and intellectual areas. This view is also consistent with those espoused by such contemporary theories as Gardner (1983) and Sternberg (1985). Finally, the definition notes that no particular group has a monopoly on talent; talent can be found among students who live in poverty and among students who are racially and linguistically diverse. In essence, more than the three previous federal definitions, the 1993 definition is inclusive and dynamic, and addresses issues of equity.

When inclusiveness, excellence, and equity are educational goals, it is possible that the number of students identified as gifted will increase. Schools that formerly admitted only 1-5 percent of their students into gifted programs (based on IQ and achievement tests) may find that more students may need gifted education services. Some educators may see the inclusive philosophy or definition, with its focus on potential and talent development, as a form of “watering or dumbing down” the definition and, subsequently, watering down testing and services.

“Attitudes appear to lie at the heart of this debate.”

This notion of change being equated with “watering down” of assessments and services poses many problems for me as an educator. It fails to consider the impact of access, opportunity, and exposure on students’ performance. The watering or dumbing down concept is one way to resist change and, thus, to keep gifted programs overwhelmingly white and middle class (Ford, 1995). It reminds me of the static belief, “If it ain’t broke, don’t fix it.” However, many minority and low SES children and their families can attest to the reality that the educational system—the way gifted students are defined, assessed, and served—is broken for their children. Conversely, those parents and educators whose children are “privileged” (McIntosh, 1988) to be identified and served as gifted are less likely to see (or even to consider) that the system is in need of serious repair.

The unfortunate reality is that social injustices (i.e., racism and classism) take their toll on the test scores, motivation, and achievement of low SES and minority students and, accordingly, limit their access to gifted education programs (Ford et al., 2002). According to Tannenbaum (1983), an individual will be gifted because of superior general intelligence, exceptional special aptitudes, non-intellective facilitators (e.g., motivation), environmental influences, and chance or luck. Likewise, Piirto (1999), discusses the important role of chance in fostering talent. She notes that, unfortunately, it could be said that when a student emerges into adulthood with his or her talent nurtured and developed, it is a miracle, because there are so many influences that encroach on talent development. We all know or remember people with outstanding talent who did not or were not able to use or develop that talent because of circumstances—social, cultural, and economical. Essentially, achievement and giftedness must be
examined in context and, as described below, those situations that can be changed in school settings must be changed.

Where Do We Go From Here? Reaching Down For Giftedness

Gifted education is a need rather than a privilege. Students do not “deserve” gifted education services—they require gifted education services. Thus, gifted education must be more about the business of meeting needs and less about the business of assigning labels and preserving the status quo. Accordingly, placement and services must be designed not only to challenge students, but also to meet their individual cognitive, academic, and creative needs as gifted students.

The more students receive instruction at higher levels—with or without a label—the more society benefits. This is not to say that all students are gifted, but rather, all students can benefit from higher-level instruction, which is often reserved for students identified as gifted. Too often, students in special education and general/regular education classrooms are not taught at the higher levels of instruction. Therefore, many of these students fall further behind in achievement (see Figure 1). The result is a self-fulfilling prophecy, with low-achieving students receiving low-level instruction and high-achieving students receiving high-level instruction. There also seems to be a tendency to lose sight of which comes first. Does high-level instruction produce high-achieving students, or do we simply give high-achieving students high-level instruction? The question is equally apropos for low-achieving students. As educators, we ought to believe that low-achieving students will produce at higher levels when given the challenge.

Schools must become more reflective and examine the effectiveness and efficacy of continuing business as usual. If we continue to do what we’ve always done, we’ll continue to get what we’ve always gotten. Diverse students come to school with a unique history and a unique set of social-political problems, many of them related to past and present social ills. These social ills are in our homes, our schools, and society at large. While educators cannot control what happens in students’ homes and in the larger society, we do have much control over the decisions we make in school settings, and we have control over the philosophies and perspectives we adopt about gifted students, culturally diverse students, and gifted education. What attitudes and practices deny access to gifted programs for diverse and low SES students? Which correctable social ills are schools willing to correct? I am hopeful that the responses support the notion that equity and excellence can and must co-exist in education and our gifted programs. All educators must respond to the basic question raised by Gardner (1983): “How can the school provide all young people with certain basics necessary to their common citizenship and at the same time give them the diverse opportunities and treatment that their differential abilities require?” (p. 89). How do we make the most of gifted students who begin life with social disadvantages and who live daily with socially imposed disadvantages? Our task as educators is to seek excellence and equity for all students; our task is to find ways of marrying excellence and equity—without exception.

References
A Plea for Young Gifted Children

Joan Franklin Smutny

The story of Tammy Debbins, a talented 1st grader, is told by Torrance (1980) in a longitudinal study. Tammy was from the projects; she had an IQ of 177. Like many young children, Tammy had an imaginary companion. The school that Tammy attended didn’t understand either her high IQ or her need for an imaginary friend. The teachers tried to suppress Tammy’s imagination and creative ability. By 3rd grade, Tammy’s performance and creativity had become average. Torrance reported that Tammy never used her talents in high school or afterwards and that her greatest frustration in life was that she wasn’t “very smart.”

During the past decade, and as a result of Torrance’s work, I have noticed a growing recognition of the needs of young gifted learners. Parents have become more informed about this subject, and primary teachers are more open to modifying curriculum for their high ability students. In addition to these positive signs, more researchers are focusing on the needs of young gifted children—including students from minority cultures and low socioeconomic communities—and effective strategies for educating them.

Yet, despite these signs of progress, many school districts still do not adequately serve gifted students until grade 3 or 4. Many schools in the United States still rely heavily on standardized tests for identification of these students. Even though standardized testing is unreliable for primary-age children, no viable alternatives are provided for identifying exceptional ability in this population. Young culturally different gifted students are perhaps the most neglected—a minority within this minority. These children often attend schools that lack funds for gifted education. They also lack the knowledge and expertise to identify and serve advanced learners from minority cultures. The schools often adopt a “deficit orientation” to their culturally different and/or disadvantaged population. That is, they tend to look on these children as needing some form of remedial education before developing their talents and abilities (Kitano & Perez, 1998).

So, in view of these challenges, what can we do to stop the loss of talent in young children like Tammy Debbins? I see four strategies as indispensable steps to creating practical ways for schools to identify them.

1. Recognize the Limits of Testing—It’s important to realize that, as a general rule, standardized tests may be inadequate measurements of ability in young children, and any score will most likely be an underestimation of what they can actually do. For young children, physical, social, and cognitive development is rapid and variable. Cognitive and motor skills come suddenly. One moment the skill is not observable; then it appears! Young children can also be easily distracted, highly sensitive to noises, and uncomfortable with the testing format. Young minority students face an additional challenge in the cultural bias of many testing instruments (Bernal, 2001).
A single assessment of a young child’s development—especially a standardized test—needs to be considered as a minimal estimation.

2. Network with Parents—Contrary to popular opinion, parents are reliable resources for identifying young gifted children. In fact, they are often the most accurate judges of their children’s abilities, day one through age 7. Here is just one of many anecdotes I have heard from parents:

My daughter is in 1st grade but goes to 2nd grade for math. The teacher was discussing the commutative property of addition with the class, saying that 3+5 is the same as 5+3. She then asked about subtraction—is 5-3 the same as 3-5? They decided that it is not. The other students all said 3-5 is impossible, but Emily thought it is possible and that it is ‘under zero.’ She said the answer is ‘2 under zero.’ She had invented a form of negative numbers all by herself.

Viewing their children in a wide variety of settings and situations, parents are in a unique position to observe gifted behavior. They are a rich mine of information on a young child’s interests, learning styles, and particular talent areas.

Among disadvantaged and culturally different populations, parents may or may not recognize the abilities of their children. Teachers should be prepared to offer information and guidance. Here are some useful guidelines for communicating with parents:

- Give them an overview of the different ways talent can express itself, e.g., problem-solving ability, insightfulness, creativity, artistry, musicality, improvisational ability, sensitivity toward others, leadership, physical grace, agility, etc.
- Explain that you’re meeting with them because you’d like their input on the abilities and learning styles of their children, that this will help you adjust class activities to fit their needs.
- Have materials you can share with them, as well as lists of books and other resources they can use to learn more on their own.

3. Observe, Observe, Observe—Consulting with parents gives primary teachers a head start on understanding the unique abilities and learning needs of their students. In this regard, the Fisher Comprehensive Assessment of Giftedness Scale (1994) is an excellent resource for guiding educators through the process. Teachers and parents examine children’s in-class and out-of-school behaviors in response to their environment. The scale ranks children’s sensibility—their keen insight, enthusiasm, interest, in-depth focus, and creative output. When combined with multiple intelligences (Gardner, 1993), the scale covers broad areas of potential ability in young students (Fisher, 1998).

In many cases, teachers need to consider new ways of thinking about and observing giftedness. Fundamental to a fair assessment of ability are the following:

- **Look for giftedness in more domains than the academic** (e.g., creative imagination, wit, improvisation, kinesthetic abilities, hands-on problem solving, etc.). Become aware of your own ideas about what giftedness looks like or what behaviors indicate high potential. Don’t assume that gifted children are early readers or even high achievers. Don’t assume that an athletic child with little interest in academics or a bilingual student struggling with English is unlikely to be gifted.

- **Look beyond “good” or “bad” behavior.** Consider the role that good behavior plays in your school’s assessment of a child’s ability. Do teacher-pleasers get more opportunity as a reward for their good behavior? While problem behaviors need to be handled, some gifted kids act up because of frustration and boredom.

- **Create activities that demand higher-level thinking and creative solutions.** It is obvious that a child who needs hands-on activities to process information and analyze a problem will not show his abilities if no such activities occur in his classroom. Be willing to incorporate different learning styles and materials so that more young students can demonstrate their strengths.

- **Allow students to express their ideas in different ways.** For example, a child from another culture may have a novel solution to a problem but may express this better through diagrams and drawings than verbal or written expression. Offer young students a variety of ways to show what they are learning.

- **Ask children about their work.** Don’t assume that you know what a student is trying to do or whether or not it works. Talk to the child. It may be that his idea is more interesting or sophisticated than his ability to express it. Uneven development is common in young children, and cultural differences may enhance this phenomenon.
When assessing the behavior of young children, teachers need to be sensitive to differences in learning style, development, and cultural background that influence the way they process information and respond to activities in the classroom. Gardner’s (1993) multiple intelligences and Torrance’s (1998) creative positives are helpful sources for designing comprehensive checklists and opening up the classroom to a more diverse range of gifts and talents in young children.

4. Portfolios—As an adjunct to documenting observed behaviors, collecting actual samples of children’s work expands the process of identification even more. These samples could include: art work, science experiments, construction projects, essays, conversations (written down or recorded), problem solving activities, and anecdotes. Obviously, there are cases where a child’s work does not result in a product we can see. This is where anecdotes become useful in filling in the blanks. Parents and community leaders as well as other teachers can contribute their stories as an ongoing written record of abilities and achievement.

Portfolios provide authentic assessment! Such evidence is valuable in determining instructional plans, especially for children in kindergarten to 3rd grade.

Advantages of portfolio assessment are that it
• validates your observations and hunches about a child.
• enables you to speak more informatively with parents and support staff about your plans.
• builds a concrete bridge between you and parents so you can both see what the other is talking about.
• helps you evaluate the child’s progress.
• guides you to a more child-centered response curriculum.
• broadens your ideas and choices to offer your children.
• justifies what to look for in identifying other students and becomes a learning tool for you.
• creates a source of pride and accomplishment for the child.

A portfolio is a strength model, not a record of deficits. Nothing negative goes in the portfolio! A portfolio is a collection of products and observations about children at home, school, and in their community. Because expressions of giftedness vary in children and cultures, you will be looking for evidence in a wide range of contexts and ability areas. A portfolio is a repository of what a child can do.

Becoming more aware of the limitations of traditional identification practices and the benefits of using more sources, teachers can ensure that fewer young gifted students are denied the services they need. This is a vitally important goal as greater numbers of these children look to us for advocacy and for opportunities to enter the world of gifted education as equal citizens. As we embrace a larger vision of what early identification means to the thousands of underserved students (especially young gifted minority students), we will find that by developing new ways to find these children, we also gain a key to serving them.

References


In the delightful book, Knots on a Counting Rope (1987), Martin and Archambault share a wonderful, supportive relationship between a boy and his grandfather. In this relationship, the grandfather tells and retells the boy’s birth and life in hauntingly beautiful stories. This book is ostensibly for children, but in reality for everyone. Each time the grandfather retells the story, he knots the storytelling on a counting rope. In gifted education, we have heard many stories, and there are many knots on our counting rope.

Standards-Based Education and High-Stakes Testing
Two current knots on the counting rope for gifted education are standards-based education and high-stakes testing. In Florida the A+ program has motivated principals to focus on strategies that improve test scores, but reactions are mixed about the impact on achievement, particularly on the achievement of gifted students. Recently a gifted 5th-grade student who relocated to Florida was asked a question by her aunt, who is a consultant in gifted education. “How is your new school?” The student candidly replied, “We do mostly math and reading, and we haven’t had social studies or science since last month; we work on the FCAT (Florida Concepts and Abilities Test).” This youngster is a high-achieving gifted student—one of three gifted students in the classroom who don’t need the “review and drill” they are experiencing. Standards need to be made developmental and flexible for gifted students served in the regular classroom.

Teaching Gifted in the Regular Classroom
Providing services for gifted students in the regular classroom as a preferred program model is another knot on our counting rope. To meet the individual needs of gifted students in the regular classroom, teachers need to adapt the curriculum and to make alternatives available for instructional materials, teaching strategies, curricular goals, learning environments, instructional arrangements, and lesson formats. Yet, many teachers and principals are fearful that making adaptations to a standards-based curriculum will diminish the curriculum and instruction. In fact, the opposite is true. Creative adaptations help ensure that the curriculum is more relevant, makes abstract concepts more concrete, and matches the learning styles of individual students to the teacher’s teaching style.

Statewide Assessment
The knot of statewide assessment is essential for teachers and parents to consider and to recognize that standards and testing are not the same. Because standards require students to perform a range of competencies, we need a range of assessments to measure the learning of these competencies. Gifted students may think “outside the box,” causing their approaches and answers to be different than expected. If school districts use only statewide assessments as identification criteria for gifted programs, they will miss many creatively gifted students who approach items in a diverse fashion. They may also miss underachieving gifted students, many of whom are “twice exceptional,” “bilingual,” or just “non-motivated.”

Identifying and Including Underrepresented Students in Gifted Programs
Where does the knot of identifying and including underrepresented students in gifted programs exist? It is in each classroom across the country. Dorothy Sisk recently wrote: “How can we be strong advocates for a gifted education that includes a broad definition and programs that help gifted students develop according to their needs?” Dorothy Sisk holds the C. W. & Dorothy Ann Conn chair in Gifted Education and directs the Center for Gifted Children at Lamar University in Beaumont, Texas.
students in the gifted program fit in? Many under-represented students—the current term for at-risk economically disadvantaged or culturally diverse students—may have low self-esteem and deficiencies in skill development. As new enrollees in gifted programs, these students may react with fear and anxiety when confronted with complex curriculum requiring task commitment and perseverance. Faced with the knots of standards and statewide assessment, these students from diverse cultures, with different languages and traditions, may react with reluctance to perform. When underrepresented students are not successful in the gifted program, they are often faced with extra classroom work, tutorials after school, and endless homework, or they are removed from the gifted program. These underrepresented students would be better served in special classes in which their skills could be developed and their self-esteem improved in a caring, responsive environment, before being placed in a fast-paced gifted program.

### Reaching Different Levels of Giftedness in a Classroom

The knot of effectively reaching different levels of giftedness in a classroom can be accomplished in small groups and on an individual basis. I am currently involved with a Javits grant in which middle school students are enrolled in an Integrated Physics and Chemistry (IPC) class taught through the inquiry process. The curriculum is based on the Texas state standards for physics and chemistry for middle school students. Teachers have developed six-week tests to measure student progress on these competencies. The dilemma is that the Javits program requires a standardized test that may not yield an accurate picture of the student learning in inquiry or physics/chemistry.

There are considerable advantages to standards-based curriculum. It provides parents, teachers, and administrators with a common language for discussing student goals and progress, and in many cases it raises the bar for instruction. Yet in many cases, the standards are minimum standards. Gifted students need not only master these minimum standards, but they need to practice related skills at greater depth and complexity. In one IPC classroom, the teacher shared the standards with her gifted students, and they developed individual contracts of programs of study to meet the standards. These 8th-grade gifted students also assisted in developing standards-based lessons. One student who assisted in developing activities for a weekend Academy in Sciences said, “Standards are like a compass. You can see where you need to go and how high to aim.” I shared the fried-and-true homily, “If you don’t know where you’re going, how do you know when you get there?” These gifted students have grasped what many educators haven’t grasped; standards are useful for creating a rich vibrant curriculum and appropriate instruction, and they offer great opportunities for gifted students to set high expectations for themselves.

### Gifted Educators Are Off-Task

One knot on our counting line signifies that as educators of the gifted we have become distracted and off-task in meeting the needs of gifted students. We have forgotten what the founder of gifted education, Leta S. Hollingworth (Klein, 2002), said, “...[O]ne of the most important of all problems for the development of social science is the problem of how to recognize, educate, foster, and utilize the gifted young...” (p. xiii). She recognized that gifted children have unique social and emotional needs and that not all gifted children are necessarily alike. Hollingworth was intrigued by individual differences and what she called marginalized populations. She would laud us for our efforts on behalf of underrepresented gifted students, for our efforts to ensure that gifted females reach their full potential, and our efforts to individualize programs for gifted students. She would be appalled at our statements that gifted students have no greater vulnerability for emotional problems than other students; that we attempt to have all students, including gifted students, march to the same drummer of standards-based education; that we require all students to do the same activities; and that we devote slavish attention to statewide assessments.

Tannenbaum (1997) reminds us that giftedness requires social contexts that enable it to mature and that human potential cannot flourish in an arid cultural climate. In our growing multicultural nation and world, we have abundant opportunities to encourage giftedness in a rich cultural climate. Tannenbaum goes on to say that, “giftedness needs nurturance, urgings, encouragements, and even pressures from a world that cares” (p. 37). As educators who care about gifted education, we need to be strong advocates for a gifted education that includes a broad definition and programs that help gifted students develop according to their needs. Martin Luther King, Jr. said that intelligence plus character is the true goal of education; enabling our gifted students to shape their lives and education toward making a difference is the true goal of gifted education.

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“What did you do in school today, Dear?” you ask in an earnest and heartfelt manner. “Oh, nothing,” is the response from your otherwise vibrant and curious child. Or worse, he tells you he spent the day practicing for the Colorado Student Assessment Program (CSAP), the mandated state testing program. Or worse still, your child’s grade report comes home, and you look at a rash of poor scores due to missing assignments. You wonder, not what he did in school today, but if he did anything in school today. His answer, “Oh, nothing,” may be alarmingly accurate.

Either way, you have a problem. An opportunity to learn has been lost, and you wonder if your child’s gifts are sinking to the bottom of the ocean while he treads water in the sea of standardized test curricula. Ah, tests….the Lilliputians of the American education system. Okay, I’m exaggerating. Nonetheless, I bet you have a sense of foreboding.

It’s not misplaced. There isn’t time to waste in school. Current research on how the brain works indicates that there are definite windows of opportunity for learning certain skills and developing certain cognitive abilities (Sousa, 2001). Neural connections are made at a very rapid pace between the ages of birth to 10, faster than at any other time in a person’s life. It is the number of connections made and the speed at which they generate thought that we call “intelligence.” Obviously, learning continues throughout a person’s life, and recent studies of stroke victims prove that new neural connections can be made, but they are not being made at the same rate as in young children. So, a day at school where “nothing” happens might be calculated in terms of unmade neural connections—an opportunity lost.

Then comes puberty. The pace of forming new neural connections drops, and the brain begins housecleaning. Connections it deems useful become permanent, while others are cast aside. The question then is, what makes the brain value certain connections over others? The answer has to do with the amount of exercise those neural pathways and connections have received over the years. The brain assigns importance to connections that are used more often. So, neural pathways for math will stay if new mathematical input is received. The old adage “use it or lose it” has a much more valid application in terms of the brain and justifies your concern when you hear that “nothing” happened in school today.

I can assure you, however, that things do happen at school. Lessons are prepared, resources are provided, and information is presented. Whether or not your child’s brain can take full advantage of it is the question. We know that the brain is a naturally curious organ, designed to absorb, assimilate, and ascribe data to memory, so why does its attention drift when data is available? Part of the answer lies in what we know about highly intelligent people. They have already developed very extensive and efficient neural pathways, so new information is processed at a very rapid rate and connected to prior experience in all its diversity. The teacher may not have completed his introduction when the gifted student’s brain is ready to move on. Desperate for stimulation, the brain turns to observing what else is happening in the room. Someone is tapping a foot, and that reminds our gifted brain of other times and places, like the band conductor in the park last summer when Grandma was here just before the hurricane that destroyed the beach where she lives....
You see? Attention has shifted. By the time the teacher has given the key directions to completing the learning assignment, our gifted child may be inventing weather machines.

Pacing of instruction, with purposeful shifts in focus and attention, is a critical element of keeping the gifted mind on task. Teachers, who limit lecture time, can provide short exercises for practice followed by discussion and feedback. Thus, they can keep an active mind engaged. However, the realities of the classroom require that the teacher re-teach material and give multiple opportunities to practice new skills over an extended period of time. This is time that the gifted learner may not need.

What can be done to fill this time? How can we adults encourage the gifted child’s brain to make the most of the learning opportunities with which she is presented? Schools can offer programming for the gifted that includes enrichment classes, accelerated classes, and teachers trained in varying levels of instruction in the mainstream classroom. The gifted child needs enriching experiences. If the teacher does not provide these enriching experiences, the student needs strategies for creating enrichment for herself. This is not as impossible as it sounds. Parents and teachers alike can provide training to children—eventhough it is in a game that we can teach our children to play.

- First, enriching activities start with material that seems strange and wondrous, or at least different, to the child’s brain. The brain seeks novelty. It likes to work on identifying, classifying, comparing, and contrasting.
- Secondly, the brain wants a challenge. If it senses there is a problem to be solved, something mysterious, something useful, there is no holding back. It will devote all its energy and resources to tackling the sticky issues—hence, the child who invents weather machines!
- Finally, all enriching experiences require feedback. The brain needs to know it’s on the right track. This is so critical that without feedback the brain simply abandons the pursuit.

20 Connections (or should we say Material That Seems Strange and Wondrous?)

The game we can teach our children is called 20 Connections. Modeled after the ever-popular Scattergories, the SAT exam employs a more sophisticated version in the section on analogies. The real value in these games is to link objects and ideas to each other. The brain will make many new neural connections from the same input, so retrieval of even one fact becomes much more probable. When this game is played in one’s head in the classroom the brain may take its own flights of fancy, but they will be more grounded in the teacher’s curriculum.

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In terms of brain activity, every enriching experience includes common factors (Jenson 2000), which can be woven into a game that we can teach our children to play.

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In this case, feeling refers to having an emotional connection and reaction to the material, not sensing it through touch. It is our emotional connection to knowledge that shapes how it is stored and retrieved. Knowing means finding what it is related to, and use it builds a sense of purpose so the brain is willing to undertake the laborious but natural process of learning from it. These three concepts prepare the brain to manipulate the data it is about to receive. This is how the brain can create something strange and wondrous out of otherwise mundane beginnings.

For example, the teacher says, “Okay, class, today we’re going to learn about the causes of the Civil War...” A student might say to himself, “Who cares?” and that would be the end of his engagement in the topic; after all, the teacher didn’t do much to pique anyone’s interest. The player of 20 Questions might say, “Do I know about the causes and should I make a list of them? Yes, but that’s dull.” So he moves to the next question. “How do I feel about war and being in it? If I don’t like war, how might one be prevented?” By extending one’s brain energy beyond thinking about facts to expressing emotions, questions about how to use the information in the real world follow naturally. This student has now personalized an interest in the causes of the Civil War and will probably come out of the unit with a greater depth of understanding than the teacher may have anticipated. It’s important in our standards-based system that our gifted children go above and beyond the standard curriculum on their own.

Given this example, you might think that the question, “Do I know it?” is irrelevant, and that children will always answer in the affirmative and then dismiss it. The student who knows how to ask the question, “Do I know it?” will instigate a protocol: “How can I know it? What do I have to do to know it? How will it be cross-referenced with what I know already?”

With young children, this seems an impossible task. If you’re looking for results tomorrow, it will be impossible. These questions and thinking techniques need to be modeled by “thinking out loud.” While you are musing, you will be amusing your child’s brain!

A very young child can be asked to name all the things she knows as “red.” Watch for the child who responds, “…the book I just finished.”

Older children love playing the commercially produced game called Scattergories. The SAT exam employs a more sophisticated version in the section on analogies. The real value in these games is to link objects and ideas to each other. The brain will make many new neural connections from the same input, so retrieval of even one fact becomes much more probable. When this game is played in one’s head in the classroom the brain may take its own flights of fancy, but they will be more grounded in the teacher’s curriculum.
Challenge
The second ingredient of an enriching experience is challenge. Teachers often present material in the form of a problem such as “If you were in charge, how would you solve the conflict?” To solve such a problem, the student would have to research the background information, examine solutions for the long-term consequences, and defend the solution. Those steps alone involve all the brain’s faculties. However, not all school curricula are presented in such a format. So, children can ask the next question in the game of 20 Connections: “If I were a grown-up, what would I be doing with this material?” The exciting parts of an adult’s job occur when there is a goal to be reached, and the tools and resources are available to reach it. Setting a goal is another way of phrasing a problem. For the gifted child who is already capable of thinking about complex issues, this gives a context in which to do it.

Feedback
Finally, we adults need to be available to give feedback. To this point, the child has been playing this game quietly on her own. It is not a real experience until it is shared, and she has to articulate her thinking in some way. Teachers can allow time for all students to share what they learned in the class and can celebrate the far-flung connections our game-playing student has made. Or teachers can ask students to keep journals of their thoughts in class that can be shared privately or publicly. Ideally there might be time for students to conduct a more in-depth study and individualized project to present to the whole class.

Parents can do more at home by asking pointed questions about what happened in school today. Asking “What did you think about in social studies today?” or “What book are you reading and how do you feel about the conflict in it?” will allow your child to test out her thinking with an older, more experienced human being. Happily, you don’t have to have a particularly lucid or intelligent reaction, as it is in the process of articulating the thoughts that the brain will use to judge for itself the value. Of course, any pearls of wisdom you may have will be accepted or rejected depending on your child’s age!

References

A Letter Never Sent
Two years ago I had a highly gifted child in my classroom. The following letter expresses how this child affected me as a teacher. I had a very difficult time letting her go; I felt that there would be those who truly did not understand her and would try to “keep her in the box.” In order for me to “let her go,” I needed to write her a letter that she would never read. In fact, only a small handful of people have read this letter. I would like to share this letter with you. Jane was 6 years old when I wrote this.

Pamela Provenzano
Illinois

Dear Jane,
I want to tell you and your family that you are all right; you are as you should be. Your parents and I know, and you are probably aware of this, that you are extremely intellectual, sensitive, imaginative, and emotional. You feel things very deeply. I know that the noise in this world bothers you and sometimes stops you from doing what you would like to do, but this is the noise of reality and, unfortunately, must be dealt with. I know that you have worried about world peace this last school year, and that you were proud when our school took your suggestions and had Peace Day. Continue to tell Student Council about your social and world concerns. You do make a difference.

I read about a man named Kazimierz Dabrowski who studied humanity and placed it in five levels of development. I know you like to read biographies, so you might like to read about him someday. He says that adults who feel like you do can change the world and bring world peace all because of the many sensitivities that they have. These sensitivities, however, must continue to be developed in children, so I hope you always find a place in school that allows you to grow.

As you get older, you may find that school is no longer exciting. You may find teachers who want you to do things their own way and will not listen to your ideas. Please don’t be discouraged. You may have to do things their way to get the grade, but never lose who you are. It is my sincere hope that your sensitivities are recognized as truly gifted characteristics, and that they are fostered, so you can reach your full potential in life.

So, Jane, you are all right, because you are simply gifted. Never lose your dream for world peace. Be that one snowflake that breaks the snow-laden tree branch. Be yourself, and one day your dream may be realized.

For all the Janes in this world….
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Surfing the Net

Are We Dumbing Down Our Daughters?

Sandra Berger

In 1992, Mattel Toys introduced the first talking Barbie doll. Barbie’s first words were, “Math class is tough.” Mattel was well intentioned. They believed they were reflecting the true feelings of girls and young women. Many parents and teachers thought Barbie should keep her mouth shut. As a result, Barbie stopped talking for almost a decade.

Women have been underrepresented in science, technology, engineering, and mathematics careers, and while they have substantially increased their numbers in some technology-related disciplines, they still fall far below occupational equality with men in fields such as physics, computer science, and engineering. The United States Department of Commerce and the Census Bureau report that women represent 46 percent of the total workforce, but only 30 percent of the Information Technology (IT) workforce. The percentage of women getting computer science degrees has declined drastically since 1986.

Is it any wonder that Mattel’s engineers (mostly men) thought they were expressing the true feelings of young girls and women?

Despite comparable achievement in math and science courses on the part of males and females, females begin to doubt their own abilities as early as 7th grade. Because females underestimate their own abilities, they begin taking fewer math and science courses than their male schoolmates, a trend that accelerates in high school. Boys are more likely than girls to take all three core science courses—biology, chemistry, and physics. Of these, physics—a field that tends to be more dependent on technology for simulations—shows the largest gap. According to the American Association of University Women (AAUW) in 2000, girls make up only 17 percent of students in Advanced Placement computer science classes. The percentage of girls from some minority groups is even smaller.

While girls have narrowed the gender gaps in math and science somewhat, technology has become the new “boys club.” To understand the technology gender gap, we need only to look at young children as they enter school. Girls use computers less often outside of school and are less likely to enter school with computer experience. By age 5 or 6, many boys have had experience with computerized game systems such as Nintendo or Xbox. School software programs often reinforce gender bias and stereotypical gender roles. Girls consistently rate themselves significantly lower than boys on computer ability, and boys exhibit higher self-confidence and more positive attitudes about computers than do girls. Even with similar exposure to courses and similar achievement levels, girls are less confident of their ability and less interested in science and engineering careers.

Girls’ attitudes about computers, however, are not the central issue; nor are college degrees, especially since studies report that the majority of women in IT professions did not major in IT. The central issue is far more significant—computer science and information technology are inextricably linked to advanced problem solving. According to the most recent National Assessment of Educational Progress (NAEP), grade-12 males out-performed females on conceptual understanding and practical reasoning. Students who analyzed data with computers at least monthly—more males than females—scored 16 points higher than those who never did and six points higher than those who did so less than once a month. Both differences are statistically significant.

A question that emerges is, if girls are opting out of advanced science and IT, are they also opting out of experiences that build advanced problem solving ability? Are we dumbing down gifted girls?

Following are some perspectives and strategies on preventing dumbing down in females:

Encouragement and Support
Almost two-thirds of the women surveyed in the NSF study cited encouragement by male figures in their lives as a major factor in their career selection. That finding isn’t a complete surprise, the researchers say, given that men are more likely than women to be employed in the information technology field.

Intellectual Challenge
“A love of problem solving, a love of the challenge really came across,” said the lead author of the study, which was presented at the annual meeting of the American Educational Research Association (AERA) in New Orleans in April 2002. This finding was in line with a report two years ago by the AAUW Educational Foundation that indicated that girls aren’t afraid of technology. Boring video games, dull programming classes, and uninspiring career options turn them off.
Surfing the Net  continued

Prestige and Salary
The majority of women studied were drawn to the industry for the challenge—not the paycheck www.ohiou.edu/news/01-02/311.html. While the IT industry is often billed as a high-paying field offering many job opportunities, few women in the survey mentioned the wide availability of IT jobs or the big paychecks as major motivators. “If you want to get more women involved in this field, talking about the money is not going to do it,” one researcher said.

Advanced Study
An undergraduate degree in engineering or computer science is not necessarily a prerequisite for a career in IT. The NSF survey demonstrated that the majority of women studied do not hold technology-related degrees. Some entered the information technology field by earning graduate degrees in computer science or information systems, while others landed positions through on-the-job experiences and training.

Games
Girls turn off to technology at an early age through computer games and software that are mass-marketed toward boys. Many girls dislike violent video games; rather, they want games that are personalized and creative, where they can develop relationships with the characters. Of the thousands of games available, the number designed for and marketed to girls falls well below 100.

Games can be used to stimulate student interest in technology when they are free of gender bias and designed to appeal to both sexes. Because games are viewed as “play,” they can engage students in problem solving in a relaxed atmosphere, thus helping them to develop skills without fear of risk taking. Low-threat, high-challenge play, and cognitive activities have proven to be motivational influences for learning.

To interest girls and young women, three criteria should govern software choices: www.enc.org/focus/edtech/document.shtm?input=FOC-000697-index#1
1. Is the game educational? Does it encourage problem solving and creativity? Is it technologically sophisticated?
2. Is the game equitable? Does it challenge rather than reinforce stereotypes that limit a girl’s notion of who she can be and what she can accomplish?

A recent check of a premier software reviewer Software for Kids www.superkids.com/aweb/pages/search/subject.cgi?terms=Girls turned up a long list of software based on Barbie and similar dubious role models. There is nothing wrong with Barbie as Rapunzel—my 5-year-old granddaughter placed that doll at the top of her holiday wish list—but the list comprised an inordinate number of software packages like Barbie and Disney’s Princess, and very few of the packages from the Learning Company, one of the more educationally sound manufacturers.

Increasing girls’ computer use may be necessary to increase their interest in computer science, but it is not enough. After all, computer science isn’t only about computers. Computer science (which really should be called computing science) is the study of computation; computers are merely the tools performing the computation. What girls mean when they say they like computers is that they like using applications such as word processing, spreadsheets, and graphics. Computer science is just that—a science with problems, conjectures, explorations, tests, and solutions math.rice.edu/~lanius/club/girls3.html. The skills that girls develop in studying computer science, are the skills they will need for smart decision-making throughout their entire lives.

Let’s look at some of the Web sites that can be used to support and encourage girls and young women.

This report by the Women’s Foundation of Colorado explores why it is important to encourage girls in the use of technology, what discourages girls’ interest in computers, and some of the recent trends in the girl gaming industry. Girl-friendly software is software that
1. is fun for girls
2. is technically sophisticated
3. challenges, rather than reinforces, stereotypes that limit girls’ notions of who they can be and what they can accomplish.

The United States Department of Education reviewed programs designed to improve high school students’ understanding of mathematics by incorporating instructional technology effectively into the curriculum. Using criteria backed by research on learning and instruction, they selected nine exemplary programs from among those reviewed. Important details and software reviews can be found on the Web site of the North Central Regional Educational Laboratory www.ncrel.org/engauge/resource/hs.htm.

Activities That Teachers Can Easily Integrate into a Course of Study Focused on Inquiry Autodesk: Design Your Future www.autodesk.com/dyf/dyfmain2.html
Design Your Future encourages young women in middle and high school to pursue careers in math, science, and technology. It has extensive information that will answer many common questions and
make technical fields seem more accessible and even fun. There are many bios of working women which describe the daily activities and challenges involved in their jobs. College advice is provided.

**CEEE TeacherTECH Lesson Plans**
www.crpc.rice.edu/CRPC/Women/GirlITECH/Lessons
TeacherTECH teachers designed this searchable database of lesson plans to take full advantage of Internet resources and to teach mathematics and science concepts in new and exciting ways.

**Center for Women and Information Technology (CWIT)**
www.umbc.edu/cwit
Located at the University of Maryland Baltimore County, the CWIT was named “the best resource on women and technology on the Web” by ABCNews.com. The center’s primary goal is to promote women’s involvement in the IT industry. CWIT’s site provides a wealth of information for women, ranging from learning the basics of computers to IT training and certification. Women considering IT as a field of study will also find information on financial aid and the CWIT Scholars Program. This is a great site for a career day activity.

**ColorMathPink.com**
www.ColorMathPink.com
Designed to help middle and high school girls excel at math, this site seeks to improve math skills for girls of all ages by presenting math in the way girls learn best, through cooperation and communication. The Career Corner discusses how math skills relate to the real world. Tutors are available for middle school math through calculus. If you can serve as a tutor or contribute math exams you are no longer using, the site administrators would appreciate hearing from you.

**Engineer Girl**
www.engineergirl.org/nae/cwe/egmain.nsf/?Open database
Operated by the National Academy of Engineering, Engineer Girl is aimed at increasing awareness of the opportunities that exist in this profession for women and girls. There is a lot of material covered on the site, providing a good understanding of what engineering is and why it is important. Information about the many different disciplines within engineering is sure to spark interest in girls. Tips to help girls orient their education toward engineering are also included, e.g., what classes to take, how to prepare for college, and how to get scholarships.

**Expect the Best from a Girl**
www.academic.org
This site makes sure everyone knows that girls are just as smart as boys. There’s a resource section for parents, and kids can check out the listing of special programs for girls.

**Girltech**
www.girltech.com
Girltech has eight areas that are designed to help girls use the Internet to find information and share ideas. The site encourages girls in the use of technology by creating products and services just for them. Famous women are featured as role models, and girls are encouraged to follow their dreams and to develop inventions.

**Girl Power!**
www.girlpower.gov
The national public education campaign sponsored by the United States Department of Health and Human Services is designed to help encourage and motivate 9- to 13-year-old girls to make the most of their lives.

**Girls to the Fourth Power Algebra Program**
www.stanford.edu/~meehan/xyz/girls4.html
Girls To The Fourth Power was a pilot algebra-tutoring program, run in the summer of 1996. The program no longer exists, but the Web site is fun and interesting.

**Helping Girls Succeed (ages 9 to 16)**
www.ipl.org/div/teen/esteem
Created by the Internet Public Library (IPL), this site informs educators, counselors, parents, and librarians of the wealth of resources available that address the unique needs of preteen and adolescent girls. You’ll find books and Web sites for girls and for the adults who care about them.

**Kids Design Network (KDN)**
www.dupagechildrensmuseum.org/kdn
Offered by the DuPage Children’s Museum, the Kids Design Network is a free program that gives elementary school students an opportunity to solve real-life engineering problems. After registering, students can choose which of six challenges is most intriguing. Once they pick a challenge, they can draw their design solution on the KDN drawing board (It will be saved in the account.). If students need help, they can sign up to talk with a KDN engineer through online chat.

**Pi Day Activities**
www.exploratorium.edu/learning_studio/pi (Exploratorium)
mathforum.org/t2t/faq/faq.pi.html (Math Forum FAQ)
One of my favorite holidays is Pi Day, March 14. Each year I send my friends a card and I bring pies to my office. We sing Pi songs, eat pie, and have a great time. Some teachers serve pizza pie to their classes, and I’m willing to bet that the kids remember Pi for a long time. Pi Day is also Albert Einstein’s birthday. You will find Pi Day Songs at: www.winternet.com/~mchristi/piday.html

**ThinkerTools**
thinkertools.soe.berkeley.edu/simulate.html
ThinkerTools is a Newtonian force and motion
simulation environment for the Macintosh. (Simulations stimulate higher-level thinking.) The ThinkerTools curriculum scaffolds scientific inquiry using both simulated and "real-world" experiments.

Women of NASA quest.arc.nasa.gov/women
The National Aeronautics and Space Administration (NASA) is working hard to encourage women to enter careers in mathematics, science, and engineering. This site is a wonderful resource for educators wishing to encourage their female students to challenge themselves, feel confident with their successes, and accept their failures. There is also a Spanish section on-site, providing educational resources and information on learning the Spanish language.

Resources

Encouraging Girls in Science and Math—ERIC Digest www.accesseric.org/resources/ericreview/vol6no2/encourage.html

Mid-Atlantic Equity Consortium www.maec.org


Institutes and Centers
Gender and Science Digital Library—funded by NSF www.edc.org/GDI/GSDL

Center for Women in Information Technology, University of Maryland. www.umbc.edu/cwit

Women in the Information Age Project, Harvard Kennedy School of Government. www.ksg.harvard.edu/witia

The Center for Gender Equity—promotes technology, science, and mathematics as careers. www.wri-edu.org/equity/index.htm

Women’s Equity Resource Center—increases educational opportunities and outcomes for all students by focusing on gender. www.edc.org/WomensEquity

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Sandra Berger is the Information Specialist for Gifted Education at the ERIC Clearinghouse on Disabilities and Gifted Education in Arlington, Virginia. She is the author of College Planning for Gifted Students.

The Affective Side
Programming Beyond the Label

Jean Strop

Within the gifted education profession, as in all facets of special education, the debate about elitism (exclusion) versus inclusion rages on. Because rational arguments can be offered for each definition of giftedness, the word gifted now carries a multitude of definitions, meaning different things to different people in different contexts. The semantic solution of assigning the label “gifted” for all types of cognitive abilities and talents has salved our philosophical egos. However, this placating move in the profession has become a source of distress for students, teachers, parents, and gifted educators in the “real world of school,” especially when it is inferred that the gifted label means being gifted in all areas.

Direct Effect on Students
The only students who fit favorably in the all-encompassing definition of giftedness are those students who are indeed highly skilled or able in all areas of study. However, the student who is “gifted” in only one or two areas may be expected to be strong in all areas. This student will often-times attempt a program that is too difficult. This choice may be made to compete with those well-rounded students she perceives as intellectual peers. Consequently, it is not unusual for these students to become overwhelmed in their chosen curriculum because it is so hard to master. They may develop unreasonably high self-expectations, yet be crippled by skill deficits and/or the inability to truly compete. To save face, these types of students often resort to underachievement, lying about task completion, or cheating to cover for weaknesses. This pattern of distress and dishon-
Indirect Effects on Students

Students’ perceptions and expectations have a strong impact. In addition, teachers and parents may indirectly influence students in a negative way when they over-generalize the meaning of giftedness.

Teacher Responses—Teachers are currently asked to respond to the accommodations required by some students with legal individual education plans (IEP’s) and 504 plans. To ask them to differentiate instruction within the classroom as well may be overwhelming (if not impossible). Consequently, a student thought to be gifted, but seemingly “choosing not to perform,” may be perceived as an unwelcome burden on an already stressed teacher.

If a student is believed to be “gifted” and can’t manage the curricular demands of a class, it is very easy for the teacher to see him as lazy. This is only logical because it appears that he “won’t” do the work. Also, if the teacher sees that a student in the class cannot master the concepts, the teacher is likely to slow the pace or to water down the concepts to help the student achieve mastery. This process may, in turn, frustrate and stifle the learning process of those students who can easily master the class work. When teachers find out that students not making the cut in their classrooms have been labeled “gifted,” these teachers may form a negative or skeptical opinion about all students who are considered gifted. This belief system may cause the teacher to have a variety of other reactions that impact the struggling labeled student.

The teacher may
1. make the class even more difficult, thinking the non-performing student is bored and/or needs more challenge
2. fail to give students necessary assistance because the students are perceived as lazy or not putting in sufficient effort
3. distrust the label so much that she underestimates the abilities of other students who are truly outstanding in that field of study
4. carry the student along because he seemed to survive just fine in the preceding class. The teacher may believe that something situational is getting in the way of performance
5. overemphasize the weaknesses and flaws of students with the label to prove a point—that these students are not as smart as they and their parents believe them to be

All of these responses are detrimental to the student, and contribute to poor family/school relationships.

Parent Responses—When parents believe the gifted label means gifted in all areas, they often put undue pressure on their students to achieve. If this pressure continues, the relationship between parent and child can suffer irreparable damage. The student begins to think she can never do enough. To protect the relationship and to save face with parents, it is not unusual for students to blame their lack of achievement on the teacher or his teaching style. The ensuing anger at the school gets the student “off the hook” for achieving (in the short run) but can ultimately damage the relationship between the family and the school.

Effects on Gifted Educators—It often becomes the job of the gifted educator to assist all parties in sorting out the issues in these situations and to answer vital questions. Is it that the student “can’t” or “won’t” perform in a class? What is the right program or placement for the student? How can the relationships in the given situation be enhanced and/or repaired? What is the student’s true ability in this subject area?

Gifted educators never entertain “de-gifting” a student as a viable solution to the problem. But they do often find themselves fighting an uphill battle against negative belief systems, unrealistic expectations, and frustrations of students, parents, and teachers. However, there are some feasible options that can prevent or solve these issues with relative ease. All it takes is a “turn of a thought,” a change of emphasis, and a reallocation of resources.

Solutions for Consideration

• Expend less time and fewer resources on identification and more time on providing services and options, using ability to perform as the standard for entry. Ability to perform can be measured by tests (standardized, teacher-constructed, criterion referenced), student products, completion of prerequisites, self-referral, and/or referral.
• Conduct ongoing needs assessment about ways to provide students with appropriate opportunities for rigor in the current educational setting. These needs assessments do not have to be formal in nature.
• Allow students to self-select areas of independent study when the size of the school does not allow for a wide choice of group instruction options. Train the students early in their educational careers on the strategies and skills for successfully completing independent studies.
• Educate all stakeholders so the label is not perceived nor used as the access to services and options in the educational setting. Have student performance, interest, and motivation serve as the keys to access educational opportunities and experiences.
• Allow students the opportunity to self-select educational opportunities from an early age. To do this well, students need to know and accept their strengths, needs, and weaknesses.

Since we are now in the world of standards-based
education, gifted educators have a unique opportu-

nity to put aside labels and to use what we know
about challenge, rigor, and personalizing the edu-
cational process. Armed with our knowledge, we
can assist our colleagues in raising the bar for all
students. It would be a much better use of human
and monetary resources to stop the ongoing and
tedious meetings about “how to best identify gift-
ed students,” and to assume and respond to the
wise but simplistic philosophy of a popular movie
character, Forrest Gump. Perhaps we should sim-
ply provide students with the appropriate edu-
cational opportunities to demonstrate that “Gifted is,
as gifted does.”

To prepare for writing this column, I asked the edi-
tor for some guidelines. As I studied the list she
sent, it occurred to me that the work I do might
actually be construed as contributing to the entire
problem of “dumbing down” of giftedness. Let me
explain.

Since I have not, in more than 25 years in this field,
been able to find a perfect identification method, I
have concluded that identification is less impor-
tant than serving the learning needs of gifted kids.
One of the greatest barriers teachers face when
deciding whether or not to provide for gifted stu-
dents is the fear that other students will perceive
that the teachers are setting up “unfair” condi-
tions. The simplest solution to this complex dilem-
ma is to make compacting and differentiation
opportunities available to anyone who might ben-
efit from them, whether or not that person has
been identified as gifted. Conversely, I believe gift-
ed students should not automatically be eligible
for compacting and differentiation unless they
demonstrate they have already mastered what will
be taught or could master the new material in a
shorter time period than that needed by their age
peers.

When teachers are shown how to use an eligibility
method, rather than an entitlement method in
their classes, they are greatly relieved and become
much more open to doing what is necessary for
students. The burden of identification and the fear
of making mistakes in this area are then lifted.
When I do workshops on teaching students with
learning difficulties, I use the same approach. Why
limit the number of students who can use tape
recorders to listen to stories or to answer compre-
prehension questions? It’s much simpler to allow
any student who so chooses to participate in this type
of learning.

Incredibly, some parents of gifted students express
dissatisfaction with these practices. They express
concern that “gifted opportunities” should be con-
fined to only those students who have been
deemed gifted by some formal identification
process. In some way, they may perceive that their
child’s giftedness would be diminished if too
many students participated in extension activities
and projects. Opening up compacting and differ-
entiation options to other students is much more
likely to lead to consistently better challenges for
all students who need them.

Finally, I have observed that teachers who use
compacting and differentiation as described above
actually free themselves up to spend more time
with struggling students. Make no mistake....all
the political pressure in schools now is to bring up
the scores of low-scoring students. In the real
world, if teachers can learn how to fairly provide
appropriate learning tasks that challenge their gift-
ed students, they feel less guilty about spending an
enormous amount of time with low achieving stu-
dents. Happily, their gifted students are actually
much better off than when they are with teachers
who know no alternative to whole class instruc-
tion. So, in this political climate, if we want ANY-
THING beneficial for gifted students to happen
daily in their classes, we must support this more
ecuminal approach. Without it, we will watch
helplessly as the needs of our gifted kids take a
back seat to the needs of low achieving students.
We must do what we CAN do, and not worry so
much about what we might do.

Susan Winebrenner, from San Marcos, California, presents
workshops on a variety of topics, but her first love is teaching
gifted children. She is the author of Teaching Gifted Students in
the Regular Classroom and Teaching Gifted Kids with Learning
Disabilities in the Regular Classroom.
Software Updates

Software as a Lifelong Tool for Learning

Gregory C. Pattridge

Computers are becoming commonplace in almost every classroom in the United States. The increase in computer hardware has been both exciting and disappointing. It has been disappointing because educators often do not know how to use the computer as a tool for student learning. The computer often becomes an Internet and email station for the teacher and/or a drill and practice vehicle for students. Even worse, the computer may become a dust collector in the classroom with teachers finding little desire to integrate technology into their lessons.

The software tools that adults typically use are word processing programs, spreadsheets, and databases. These tools are appropriate for all students to begin learning during their elementary years. It is how we differentiate the use of those tools for gifted students that becomes vitally important.

Gifted students, especially, need to be pushed outside their comfort zone and presented with a little bit of struggle for any increased learning to take place. Fortunately, there are models and software packages that can challenge the whole classroom and provide an extra dose of critical and analytical thinking for gifted students. Two software packages—one from Tom Snyder Productions (800-342-0236/www.tomsnyder.com) and the other from NteQ (Morrison & Louther, 2002) are good examples.

Tom Snyder Productions has a history of providing many unique software packages to be used as problem-solving tools. Many of the ideas for the software came right from Tom’s experience as a classroom teacher 20 years ago. Some of the company’s greatest successes are science titles, in particular The Great Ocean Rescue and The Great Solar System Rescue.

Both of these titles came about through a partnership to develop materials that promote investigative problem-solving and cooperative learning. They can be used with the whole class, but pre-assessments are urged to appropriately place students in groups and roles. Extension lessons and activities are included to stretch and challenge the fast processing that is indicative of a gifted learner.

The Great Ocean Rescue is a similar title that is based on problems facing the oceans of the world. Again the student takes on the role of an expert (oceanographer, geologist, marine biologist, or environmental scientist). Many skills are used, including analysis, interpretation, hypotheses testing, and collaboration. The missions have students exploring topics such as habitats, pollution, coral reefs, and hydrothermal vents. Lessons can be used for the whole class or for clustered groups of gifted students.

Both software titles are appropriate for 5th-8th graders, although gifted 4th graders could also experience success with the missions. Additional software titles in social studies, science, and math from Tom Snyder also show promise for accelerated learning opportunities with high-ability students at all grade levels.

The NteQ model (www.nteq.com) is an inquiry-based model that starts by specifying a problem that students are to solve. The problem can come from any content area, but typically the solution will come about by using one or all of the essential computer software tools: word processing, database, and/or spreadsheet.

For example, a 6th-grade lesson may have students explore how to spend a family food budget with a certain number of coupons and discounts allowed. Students must analyze advertisements from different grocery stores and then present their comparison and analysis in a spreadsheet using proper formulas for percent off and totals. Differentiation can occur by varying the complexity of the assignment with more advanced formulas and/or more open-ended budget scenarios.

Typical lessons will also include activities that are to be carried out prior to and after regular computer work. Rubrics are included and used for evaluation of the end product. Additional materials called “Think Sheets” encourage students to think critically about what they have learned so that they can be assured about what they know, understand, and are able to do as a result of the lesson.

The NTeQ model is new enough that we are only just beginning to see some solid examples on the Internet. The model is appropriate for all grade levels and can really ratchet up learning and thinking skills of all students.
The full promise of the computer as a tool for lifelong learning has not been fulfilled. Training for teachers, budgets for software, and integration of the computer in all phases of the curriculum are important components to make this a reality.

Reference


Gregory C. Pattridge is a resource instructor and staff developer with Intervention Services/Jefferson County Public Schools, Colorado. He teaches nationally for Lesley College and University of Phoenix and is a frequent consultant for gifted and technology education.

The Bookshelf

Young People with Abilities

Bordering on the Supernatural

Suzy Schettler

The following books all have one thing in common—they are all about gifted young people. These young people are not gifted in the traditional sense, but they do have unique abilities—abilities that border on the supernatural. They also have something in common with the more traditional gifted child—their feelings of being different than most and the isolation and loneliness that that sometimes brings, not to mention the envy, mistrust, and fear that others may have towards such extraordinary abilities.

Having such special abilities may seem like a wondrous thing, but outsiders may try to use such talents to their own advantage—especially abilities that cross over into extra-sensory arenas. The ability to be able to read other people’s minds could provide an incredible advantage to governments and other organizations looking for an edge.

The books below all deal with these very complicated issues. They fall in the late middle-reader to young adult/teen camp, with coming-of-age issues, including falling in love.

**Dr. Chill’s Project** by Thomas Hoobler (1987, G.P. Putnam Sons) is an older book and won’t likely be found in any bookstore. Best bets would be local libraries or inter-library loans.

Fifteen-year-old Allie is brought together with four other young people with extrasensory powers to take part in a secret project sponsored by the mysterious Dr. Chill. At first the group home, with its friendly inhabitants, seems like a dream come true to Allie, who has been bounced from institution to institution. For as long as she can remember, Allie has wanted to be like other kids and suddenly she finds herself with other young people who all have “a special” as they call it amongst themselves. At first Dr. Chill seems to understand how hard it is being different. He tells Allie, “When people like you turn up, the rest of us get very upset. You’re different, and we don’t like that. So we try to make you like us. Nobody really knows how many others like you succeed in becoming...just like everybody else. That’s what people like me usually try to help you do.” But in response to his question, “Do you want to be just like everybody else?” Allie discovers that while a part of her wants to say yes, another part of her doesn’t, and he seems to admire that, all the while telling her how much she’s wanted as part of their group just for who she is.

Allie learns about the other kids. Rose can read minds and can sense things that are going to happen. Rose becomes a friend who begins to show Allie that these powers aren’t evil, and that there is no need to fear them. Jay has an affinity with numbers and machines. Timmy won’t speak and in many ways seems underdeveloped, but his mind has such special abilities that even within the group he is considered extraordinary. Lew seems to understand them all so well.

Little by little, Allie begins to realize that things aren’t quite what they seem, and that something about Dr. Chill’s home for the “gifted” doesn’t seem quite right. There is a strange man who follows them and silently watches their experiments. Then suddenly, one of them is kidnapped, and they have to use their abilities together to solve the problem.

This book deals with issues of friendship, self-acceptance, and how adults may try to manipulate talented young minds for their own use, beginning with Rose’s father who wants her to predict who will win the next ballgame so he can bet on it. While gifted children will not have the types of supernatural abilities of the characters portrayed in the story, many will be able to relate to feeling pressure from others. Self-acceptance and trust in the face of such manipulations can be difficult, especially during the teen years when children are trying to discover who they really are and what they want for themselves. This book does an excellent job of showing that love and friendship are what count the most.

**The Strange Power** by L. J. Smith (1994, Archway Pocket Books) is the first book in the Dark Visions trilogy. Like Dr. Chill’s Project, it’s another story about a group of teens with special gifts. In this book the teens are gathered at a special place called the Zetes Institute. These children have even more unusual abilities than the characters portrayed in the Hoobler book. One girl can communicate with animals, and another has mysterious healing abilities. Kaitlyn Fairchild, the main character of the novel, has prophetic visions.
Unfortunately, she can’t control when they will occur or understand what they will be about—something she finds incredibly frustrating because it prevents her from being able to stop tragic events and save innocent lives. Then one day the Zetes Institute offers her not only a “scholarship to the college of her choice,” but a chance to learn how to control and understand her powers. In return Kaitlyn is expected to live at the Institute for her senior year of high school along with four other students, all with special talents. Her part of the bargain is that she allows her abilities to be studied and tested. She’s told that she’ll “be helping the cause of science” and that she’ll be able to learn more about her gift, maybe learn to control it so that it could help people. She’s also told that “in the entire world, there are only a handful of people” who have abilities like hers, and that in the entire United States, they could find only five other kids besides herself—all with slightly different, extraordinary abilities—to take part in the study.

Kaitlyn learns that the Zetes Institute is a small laboratory established by a research grant, courtesy of the Zetes Foundation. Mr. Zetes is not only the chairman of a big corporation in Silicon Valley, but a man with intense interest in psychic phenomena. In fact, it was Zetes himself who broached the idea of creating the Institute, searching the country for teens with psychic abilities and gathering them for testing and research. Only teens with the strongest and most unique abilities, the “cream of the crop,” are invited. Kaitlyn can’t help but be tempted, not only by the chance to understand and possibly learn to control her abilities, but to be together with others who know what it’s like to live with a special gift and how isolating and difficult it can be.

What Kaitlyn finds, however, is that the Institute may not be as harmless as it seems. The mysterious Mr. Zetes may have a hidden agenda that has less to do with science and more to do with madness. The teens find that they need to put their personal differences and hostilities aside and work together to get to the truth, accepting themselves and learning to trust each other along the way.

The second book in the trilogy is *The Possessed* (1995, Archway Pocket Books). It follows the five friends as they are drawn to a mysterious white house. *In The Passion* (1997, Archway Pocket Books), the author drives the story to its climax, providing lots of suspense, romance, mystery, and horror along the way.

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**Suzy Schettler**, from Ontario, Canada, is the mother of two gifted sons.
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