July 2007

Talented Children and Adults: Their Development and Education

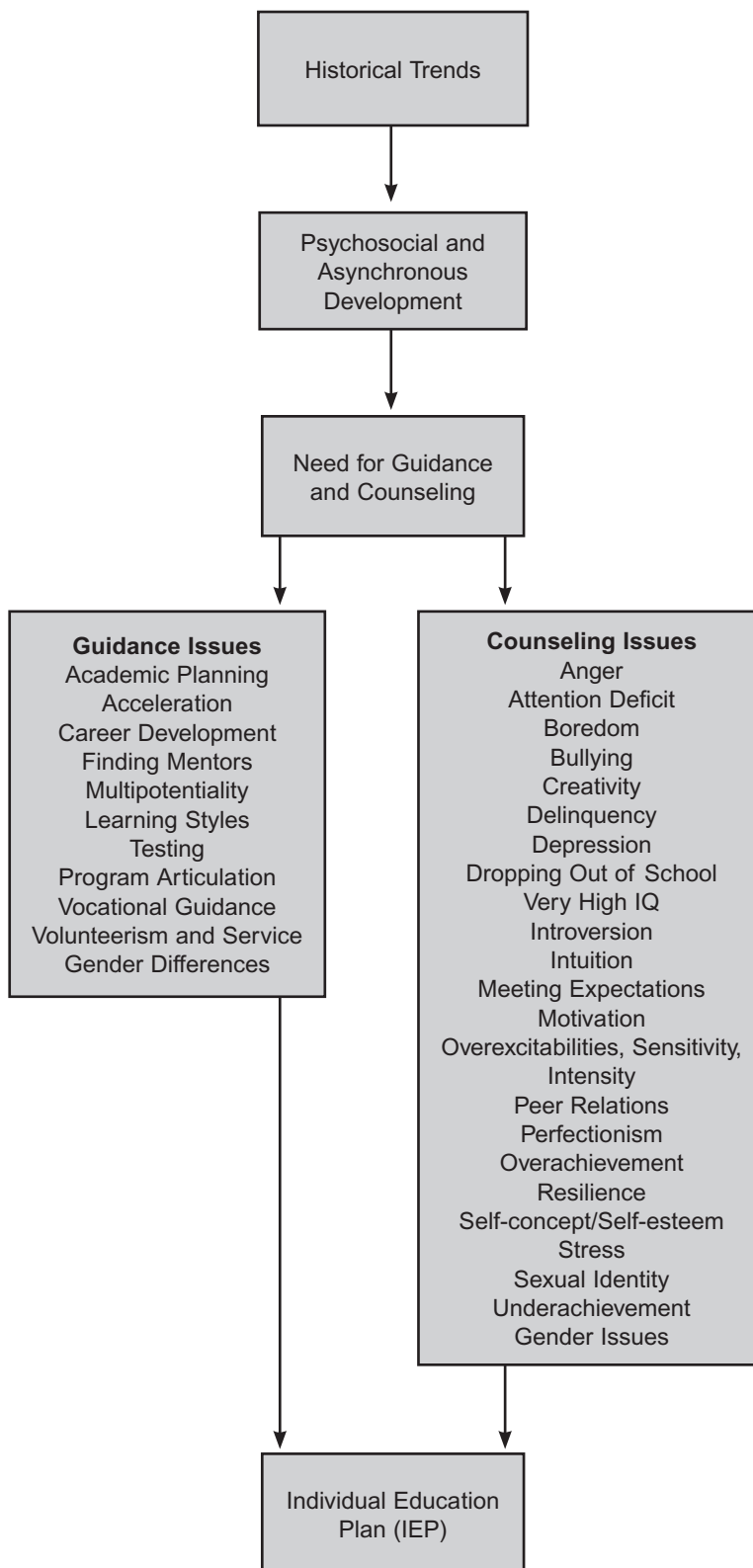# Social-Emotional Guidance and Counseling Needs of the Talented

FOCUSING QUESTIONS

1. What would you do if a student with whom you had rapport in one setting defied you in public in another setting?
2. What are the essential aspects of asynchronous development and what are the merits of this definition as a counseling understanding of high-IQ students?
3. What aspects of what research have shown that the psychosocial development of academically talented students merits special counseling and guidance intervention? Why?
4. Discuss two of the counseling issues that resonate with you. Tell a story.
5. Discuss two of the guidance issues that resonate with you. Tell a story.
6. What are the salient differences between students with high IQs and students with very high IQs?
7. Discuss the counseling issue of self-concept as it relates to gifted youth.
8. Compare and contrast self-concepts of mathematically and verbally precocious youth.
9. What is resiliency and what does it have to do with the manifestation of talent potential?
10. Does underachievement exist? Why or why not?
11. What are the special duties of counselors in guiding talented students?
12. Discuss gender differences in achievement, course selection, and test taking.
13. Discuss the counseling needs of talented girls.
14. Discuss the counseling needs of talented boys.
15. Discuss the counseling needs of gay, lesbian, and bisexual talented students.
16. Do you think the causes of the gender differences are environmentally or genetically induced?
17. Fill out the individual plan (short-term) for a student you know.

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                    │  Historical Trends  │
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                    │   Psychosocial and  │
                    │    Asynchronous     │
                    │    Development      │
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                    │  Need for Guidance  │
                    │    and Counseling   │
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Guidance Issues	Counseling Issues
Academic Planning	Anger
Acceleration	Attention Deficit
Career Development	Boredom
Finding Mentors	Bullying
Multipotentiality	Creativity
Learning Styles	Delinquency
Testing	Depression
Program Articulation	Dropping Out of School
Vocational Guidance	Very High IQ
Volunteerism and Service	Introversion
Gender Differences	Intuition
	Meeting Expectations
	Motivation
	Overexcitabilities, Sensitivity, Intensity
	Peer Relations
	Perfectionism
	Overachievement
	Resilience
	Self-concept/Self-esteem
	Stress
	Sexual Identity
	Underachievement
	Gender Issues

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                    │ Individual Education │
                    │     Plan (IEP)      │
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Figure 11.1. Graphic overview of Chapter 11

The graduate students studying the education of the talented and gifted were discussing problems that had arisen on their jobs as teachers of the talented. Mary Brickman said, "I had an incident happen today that has me really upset. Toby, this sixth grader I am working with, and I really got into it. He had never seen me as a classroom teacher before, only as his resource teacher, pulling him out from study hall to work with him on advanced reading and creative writing. Well, I was scheduled to teach a 6-week cycle of reading to the regular class that he's in. He was acting up and talking and drumming his fingers against the table and I asked him quietly to stop disturbing the other students. He just kept on doing it. I asked him again. He kept on. I finally said to him that I would like him to leave. He got up and flounced out, to the study hall. Then, when I came to get him for his enrichment lesson in the study hall, he was there with his head in the desk.

"I went over to him and told him to come with me. Now usually he's looking at the door and just rises when I get there. When we got to the library, he just sat there with his arms crossed, and a defiant look on his face. I said, 'Toby, we have to talk about what happened.' I used all my teacher wiles, trying to get him to talk. I patted him on the wrist and he shook my hand off. Finally, I thought, I'm not going to take this anymore, and I pulled out my calendar and said, 'Well, I guess you

should go back to study hall. I'll come and get you next Tuesday at this time.'

"But, I feel horrible. I went to his folder in the office and got his mother's phone number and I'm going to call her and talk to her about this. What do you guys think?"

"His head in the desk? He actually had his head in his desk?" Ellen Bates said.

"Yes," Mary replied. She went on. "The first week of school, his teacher came up to me and said she couldn't take anymore of this. If it's not drumming his fingers, it's banging his head on the desk or on the wall. She said he does no work."

"How are his test scores?" the professor said.

"He's got an IQ of 165 on a Woodcock-Johnson. He's got achievement test scores in the 95th percentile in everything. He's a very good creative writer. Right now in our enrichment period he and another little guy—he's in sixth grade but he has been accelerated a year—are reading fantasy novels and science fiction and writing their own. I have no trouble with Jason, the young one. Only with Toby. And, this is the first time."

"165? On an individual test?" the professor said. "He's a highly academically talented boy."

"Yes. Well, you wouldn't know it from his grades. Something interesting about his family came up, though. When I was reading his file, I read his mother's request for his kindergarten placement. She said that she wanted him to be in the morning kindergarten because he was so involved in his own projects in the afternoon. That's a little unusual for a kindergartner, isn't it?"

"He thinks you betrayed him when you reprimanded him," another classmate said.

"I know. He's never seen me teach a class before. It's always been one-on-one," Mary said. "But, his behavior was inappropriate and he was disturbing the other kids."

"His subject matter teachers say that he doesn't do his work?" the professor said.

"None. Zip. He hasn't handed in one homework assignment, and when he's called on, he makes sarcastic remarks. Today, before I asked him to leave, he was saying things in the discussion—we were discussing what makes an eminent writer—and one of the kids said that Stephen King was eminent. He said, 'Stephen King? Come on. Who can stand that simplistic stuff?'"

"He has no tolerance for the other kids," someone observed.

"Well, he's been permitted to underachieve since kindergarten, I'll bet," Karen Brock said. "Has he ever done a project or handed in work?"

"Have you seen any of his work?" the professor said.

"Now that you mention it, no," Mary said. "He's just writing and writing on his fantasy story, but when I stand over his shoulder, he put his arm up and blocks the screen."

"Don't you have a backup of his story?" Carol Warner said.

"No. He takes the disk with him when he leaves and stores it in his locker."

"Then how do you know he's even writing a fantasy story?" said Karen.

"Well, he discusses, he shares, he laughs, and he is funny when the three of us are together," Mary said. "But, now he's shut me out, too. He's shut the whole school out and he trusted me and I reprimanded him and he's shut me out, too."

"Talk to him right away tomorrow morning," Carol said. "Before you see him for the reading class. Get the story."

"Call his mother and ask her what she thinks," Sherry Parke said. "Is he in an intact home? What are his parents like?"

"I think they're kind of odd, too," Mary said. "At least that's what I've picked up from the teachers. His father works in computers, and his mother used to teach. She's a librarian now. Someone said their house is full of books and newspapers, just a mess."

"Do you know?" the professor said. "Rimm makes a good point when she says that no change happens in a student's achievement without three parties—the school, the parents, and the child himself. You've got to see what's up with the family. With that IQ and those achievement test scores in the 90s, he's underachieving. He can get those scores without even trying."

"That banging behavior sounds like Attention Deficit Disorder to me," Ellen said. "Maybe he needs Ritalin. I know a boy who was doing that and they put him on Ritalin and it just cleared right up. He was able to concentrate and do his work."

"But, he's so far above grade level. What about accelerating him to eighth grade?" the professor said. "Test him and find him a level of challenge."

"I don't know. I'll keep you tuned in," Mary said.

The next week the class questioned Mary again. She said that the next day, he'd behaved just as if nothing had happened. She had requested permission to do a case study on him for her graduate class, and Toby seemed pleased. "Now you'll find out how psycho I am," he told Mary.

This description of a clash with a very high-IQ boy illustrates some of the difficulties academically talented children and their teachers encounter in the milieu of the school. Such difficulties often call for counseling and guidance interventions.

Historical Trends in Guidance and Counseling of the Academically Talented

Emotional and social characteristics of the gifted and talented have always been at the forefront. The Terman study (whose long-term results were discussed in other chapters), begun in the 1920s on talented adults, was formulated to "prove" that students with high IQs were not weird, strange, sickly, or odd. Leta Hollingworth (1926, 1942) has been widely credited as being among the first to recognize that the academically talented do have emotional and social needs that can be served by counseling (Klein, 2002).

The 1950s saw centers such as the University of Wisconsin-Madison Guidance Laboratory for Superior Students. The influence of John Curtis Gowan in the 1960s and 1970s was notable. In the late 1970s, Colangelo and Ziffert (1979) edited a book called *New Voices in Counseling the Gifted*, which heralded that academically talented students did, indeed, have special counseling needs because of their developmental differences. In the 1980s, Supporting Emotional Needs of the Gifted (SENG) was established at Wright State University in Ohio by James Webb. SENG sponsors conferences for parents and educators. In the early 1990s it moved to Kent State University, and in the early 2000s, to Scottsdale, AZ.

In 1982, *Guiding the Gifted Child*, the most popular book about the affective needs of gifted children was published. This was written by James Webb, Elizabeth Meckstroth, and Stephanie Tolan, and it would go on to sell more than 80,000 copies. Galbraith's Free Spirit Press began to feature books for teachers on counseling the gifted, among them *Managing the Social and Emotional Needs of the Gifted: A Teacher's Survival Guide* (Schmitz & Galbraith, 1985). Also in the 1980s, Barbara Kerr established the Guidance Laboratory for Gifted and Talented at the University of Nebraska in Lincoln; in Denver, Psychologist Linda Silverman established the Gifted Child Development Center; and in Iowa City, the psychologist Nicholas Colangelo directed Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development at the University of Iowa. All these centers emphasized family involvement and offered counseling and guidance.

By 1993, both James Delisle and Linda Silverman had published substantial books on counseling issues. In addition, Goals 2000 focused on issues having to do with social and emotional development. In 1997, Colangelo applauded the increase in the number of qualitative case studies that has led to in-depth understanding of the counseling and guidance issues pertinent to talented people.

In 1998, the National Association for Gifted Children published standards for meeting the socioemotional needs of gifted and talented children (see Table 11.1).

Table 11.1

Gifted Education Programming Criterion:
Socio-Emotional Guidance and Counseling

Description: Gifted education programming must establish a plan to recognize and nurture the unique socio-emotional development of gifted learners.

Guiding Principles	Minimum Standards	Exemplary Standards
1. Gifted learners must be provided with differentiated guidance efforts to meet their unique socio-emotional development.	1.0m Gifted learners, because of their unique socio-emotional development, must be provided with guidance and counseling services by a counselor who is familiar with the characteristics and socio-emotional needs of gifted learners.	1.0e Counseling services should be provided by a counselor with specific training in the characteristics and socio-emotional needs (i.e., underachievement, multi-potentiality, etc.) of diverse gifted learners.
2. Gifted learners must be provided with career guidance services especially designed for their unique needs.	2.0m Gifted learners must be provided with career guidance consistent with their unique strengths.	2.0e Gifted learners should be provided with college and career guidance that is appropriately different and delivered earlier than typical programs.
3. Gifted at-risk students must be provided with guidance and counseling to help them reach their potential.	3.0m Gifted learners who are placed at-risk must have special attention, counseling, and support to help them realize their full potential.	3.0e Gifted learners who do not demonstrate satisfactory performance in regular and/or gifted education classes should be provided with specialized intervention services.
4. Gifted learners must be provided with affective curriculum in addition to differentiated guidance and counseling services.	4.0m Gifted learners must be provided with affective curriculum as part of differentiated curriculum and instructional services.	4.0e A well-defined and implemented affective curriculum scope and sequence containing personal/social awareness and adjustment, academic planning, and vocational and career awareness should be provided to gifted learners.
5. Underachieving gifted learners must be served rather than omitted from differentiated services.	5.0m Gifted students who are underachieving must not be exited from gifted programs because of related problems.	5.0e Underachieving gifted learners should be provided with specific guidance and counseling services that address the issues and problems related to underachievement.

Note. From *Aiming for Excellence: Gifted Program Standards. Annotations to the NAGC Pre-K–Grade 12 Gifted Program Standards* (pp. 98–99), by M. S. Landrum, C. M., Callahan, and B. D. Shaklee, 2001, Waco, TX: Prufrock Press. Copyright ©2001 The National Association for Gifted Children. Reprinted with permission.

In 2001, the National Association for Gifted Children released a report called "Task Force on Social-Emotional Issues for Gifted Students" (Neihart & Robinson). In 2003, out of this task force, came the book, *The Social and Emotional Development of Gifted Children: What Do We Know?* (Neihart, Reis, Robinson, & Moon).

One can see that the social and emotional needs of gifted students are fully on the radar screen of the educators of the gifted and talented.

Psychosocial and Asynchronous Development

Many of the social and emotional difficulties, according to certain experts, are caused by the academically talented student's *asynchronous* development. This means that the student is out of sync with his age peers emotionally and intellectually. As discussed in Chapter 5, Terrasier (1985) said that gifted students experienced *dyssynchrony*, or uneven development, which has both internal and external aspects. The concept of asynchronous development goes beyond Terrasier's concept of dyssynchrony, according to Silverman (1993), in that asynchrony "incorporates the emotional dimension, emphasizing the interrelationship of cognitive complexity and emotional intensity" (p. 2). The emotional repercussions of having a high IQ have long been ignored, or, when recognized, have been thought to be a cause of emotional instability (Piirto, 1999b).

While the physical development of academically talented children is most often similar to that of their age peers, their cognitive and emotional development often far outstrip their age-mates. As a result, these students often experience great stress that can lead to phenomena such as disabling perfectionism, underachievement, acting out behavior, and depression. In a study of more than 500 Australian students ages 3 to 16 with a mean IQ of 126, Alsop (2003) found that the students manifested anxiety, were self-critical, overly sensitive, easily upset and easily frustrated, and that depression occurred in adolescence. She theorized that asynchrony was the cause of these disorders.

Psychosocial Characteristics of Academically Talented Youth

The American Psychological Association published a book in 1985, edited by Frances Horowitz and Marion O'Brien, especially devoted to the development of gifted children. As usual, gifted children were described as those with high IQs. Janos and Robinson (1985) summarized the research to that date and found these results:

1. In *social cognition*, high-IQ (or intellectually gifted) children generally show more maturity than their age peers, but not as much maturity as their intellectual agemates.
2. In *moral development*, high-IQ adolescents seem to be more advanced than typical high school and college adolescents.
3. In *play interests*, such as choice of books and aesthetic interests, high-IQ children had interests of older children. They also preferred to play with older children. That older children accepted them shows similar intellectual development.
4. In *personality maturity*, which has implications for whether or not to accelerate a gifted child, high-IQ children seemed to be more mature than agemates.
5. On *psychosocial adjustment*, researchers have been stymied by the confusion of socioeconomic background factors with intelligence factors, and by the relatively rigid standards for adjustment defined on many personality inventories. For example, a child who plays with older children is called maladjusted on some personality inventories. Nevertheless, there has been a repeated finding that high-IQ youth have average or superior psychosocial adjustment.
6. In *locus of control*, or the internalizing or externalizing of motivation to achieve, talented students, no matter the IQ, generally demonstrated inner drive and determination, especially in areas of talent such as music, mathematics, and any areas that require intense study. This inner locus of control generally describes people who are self-sufficient, independent, autonomous, dominant and individualistic, self-directed, and nonconforming. Nonconformity, though, is tempered in high-IQ youth. Creative youth—artists, actors, writers—may demonstrate more nonconformity (Piirto, 1991a, 1992a, 1998e, 2004).
7. In *mental energy, enthusiasm,* and *physical vigor,* studies have confirmed that high-IQ students also excel, and these contribute to the wide range of interests found in the gifted. They are both more persistent and more aggressive, and have high aspirations, and this holds true for both females and males. The high IQ, academically talented youth like to think and like to be intellectually challenged; this is often the cause of their complaints of boredom with the regular watered-down school curriculum.
8. In *sociability*, academically talented youth seem to be more introverted than the regular population. Myers and McCaulley (1985) stated, "The three preferences that appear to contribute most to scholastic success are I, N, and J" (p. 107).

However, Janos and Robinson (1985) cautioned that the developmental research was scattered. The ability to concentrate and to focus on intellectual problems seems apparent in academically talented people, although many high-IQ people do not make life achievements that would be called earth-shaking or highly influential. Personality traits that differentiate achievers from nonachievers seem to be "sustained intent and concentrated effort," in all fields and domains of effort (p. 165). Indeed, high-IQ people who do not achieve would seem to not achieve on the basis of personality characteristics rather than on the basis of high IQ. The reverse is true, also. Average IQ people who achieve have personality characteristics that encourage intent and effort. (See the Pyramid of Talent Development in Chapter 1.)

Need for Guidance and Counseling of Talented Youth

With these generally positive research findings, what need do academically talented and other talented youth have for guidance and counseling? Won't they make it on their own? No, said Levy and Plucker (2003), who advocated treating the gifted as a subculture, much as handicapped people make up a subculture. The need for guidance is crucial; many academically talented youth, especially females and those in rural or lower socioeconomic situations, do not receive the guidance that they need in terms of career planning, college planning, or definitions of options—mentoring, shadowing, and course taking.

In the parlance of the guidance and counseling profession, *guidance* has to do with specific options that can be planned, such as taking the PSAT in the junior year, and having a proper schedule for one's abilities. *Counseling* has to do with affective aspects of the students' development, often dealt with in group or individual sessions with counselors trained in process. Counseling often resembles therapy, while guidance resembles advising. Many of the people who cry wolf about the social and emotional needs of the gifted and talented have worked in the therapeutic setting, and they have seen extreme cases. For most gifted and talented students, the findings of Janos and Robinson (1985) still seem to hold true. As a person whose work experience has been in schools, as a teacher, administrator and guidance counselor, and not as a therapist, I believe that if the guidance is there, the counseling is often not needed.

Colangelo (2003) said that there are two ways to look at school programs that seek to help gifted and talented students: (1) remedial and (2) developmental. The remedial approach focuses on putting out fires—intervening in crises and solving problems. The developmental approach seeks to establish that the school welcomes gifted and talented students, understands their needs, and knows both their emotional and their educational needs. Speaking for the developmental approach, Freeman (2001) asserted:

"Gifts do not come with problems attached" (p. 26). The young people in her longitudinal study in Great Britain experienced problems that were "largely of other people's making," for example when their parents lived vicariously through their children, or when the talents were in one specific area but were expected to be in all areas, or when the "tall poppy syndrome" was operational; that is, when people tried to cut the gifted and talented youth down to size, felt resentful, or, alternatively, put them up on a pedestal.

Guidance Issues for Talented Youth

Talented students, like most students, do not tend to seek the help of counselors for personal issues. They do, though, talk with their counselors about guidance issues such as course selection and career advice. Implicit in these choices is often the fact that talented students, especially students from lower socioeconomic groups, may experience ambivalence about the choices available to them. Here are common guidance issues that should be addressed: academic planning, acceleration, career development, finding mentors, multipotentiality, learning styles, testing, program articulation, vocational guidance, volunteerism and service, and gender issues underlying all of the above. Table 11.2 lists these guidance issues and some sources that deal with them.

Depending on geographical region and size and type of school, the college planning help that talented students receive varies greatly. In college towns, suburban areas, and urban academic high schools, talented students are more likely to receive high-level college planning; that is, they are told that they should try to apply to the best college that will take them, and that the money will probably follow. However, in rural areas, especially in the south and in the Midwest, and in comprehensive urban high schools, counseling help may often be limited to colleges with which the counselor is familiar.

The vast difference in levels of college planning for talented students often has to do with how well-exposed the counselors themselves have been to a wide spectrum of college options; they may be tempted to counsel students to attend their alma maters or schools similar. One counselor from the Midwest who was in an elite overseas American school was asked to leave because he was counseling the high school students to attend Midwestern state universities and not the top tier, Ivy League, tier one universities that eastern suburban counselors routinely recommend. The superintendent of the school said that he would never again hire a counselor from the Midwest, for the reason that college planning skills advice was limited by geographical background.

Table 11.2

Guidance Issues for Talented Youth

Academic planning (Berger, 1989; Delisle, 1992; Kerr, 1991; Rimm, 1986; VanTassel-Baska, 1994; Wright & Olszewski-Kubilius, 1995)
    Course selection

Acceleration (Benbow, 1992; Colangelo et al., 2004; Southern & Jones, 1991, 2004; Stanley, 1979, 1989)

Career development (Delisle, 1992; Hollinger & Fleming, 1992; Kerr, 1991; Myers & Pace, 1986; Silverman, 1993)
    Too early career closure (Myers & Pace, 1986)
    Coping with delayed gratification (Myers & Pace, 1986)
    Making long-range plans (Myers & Pace, 1986)

Finding mentors (Arnold & Subotnik, 1995; Clasen & Clasen, 2003; Riley, 1992; Siegle & McCoach, 2005)

Multipotentiality (Achter, Benbow, & Lubinski, 1997; Achter, Lubinski, & Benbow, 1996; Blackburn & Erickson, 1986; Delisle, 1992; Gagné, Neveu, Simard, & St. Père, 1996; Gross, 1993; Kerr, 1991; Milgram & Hong, 1999a; Sajjadi, Rejskind, & Shore, 2001)

Learning styles (Bireley, 1991a; Hunt & Seney, 2005; Myers & McCaulley, 1985; Rayneri, Gerber, & Wiley, 2003; Renzulli & Smith, 1978a; Tomlinson, 1999, 2001, 2003)

Testing (Assouline, 2003; Campbell et al., 2004; Lupkowski-Shoplik & Assouline, 1993; Lupkowski-Shoplik, Benbow, Assouline, & Brody, 2003; Nevo & Sela, 2003; Olszewski-Kubilius & VanTassel-Baska, 1990; Stanley, Benbow, Brody, Dauber, & Lupkowski, 1992)

Program articulation (Piirto, 1994a, 1999a; VanTassel-Baska, 1994)

Vocational guidance (Greenan, Wu, & Broering, 1995; Greene, 2003; Guindon & Hanna, 2002; Kerr & Robinson Kurpius, 2004)

Volunteerism and service

Gender differences (in all of the above)

The importance for career development, and graduate school admission, of attending a top level school if the student can get in can not be underestimated, and that is where aware counseling of talented youth in their home junior high and high schools must take place. There *is* an "Eastern Establishment." For example, most presidential candidates in the past have graduated from Yale Law School. Power and influence resides in the graduates from the elite colleges. Counselors should be aware of this and aid their students in attending the best colleges, no matter what geographical area, to which they can be admitted. Recently, the colleges that admitted 100 or more National Merit Scholars were, in descending order, Harvard and Radcliffe, Rice, University of Texas at Austin, Stanford, Texas A&M, Yale, Princeton, Northwestern, Ohio State, M.I.T., Duke, and Brigham Young.

Course Taking

Most intellectually talented students plan to go to college; however, some of them do not receive the course selection advice that they need to do well on precollege examinations such as the SAT or the ACT. This planning must start early. *Course taking* is the most direct way that guidance counselors can influence talented students. Unfortunately, many adults report that their counselors influenced them in the wrong direction. For example, many talented women were not encouraged to take 4 years of mathematics and 4 years of science; when they got to college they found that they had to "catch up" and many of them never did. Others have found, for example, that Black youths who take geometry are the most likely ones to go to college. Making sure that geometry is on the course selection agenda should be a priority for school personnel. Guidance counselors who know these facts will be the major influence on course-taking behavior.

Acceleration

Acceleration has been discussed in Chapters 2 and 10. The counselor and teacher should be aware that there have been few studies that show acceleration to be a failed strategy for educating young talented learners (Benbow, 1992; Colangelo et al., 2004; Kulik, 2004; Southern & Jones, 1991, 2004; Stanley, 1979, 1989). The most well researched have been the longitudinal studies of SMPY, the Study of Mathematically Precocious Youth.

Research on Acceleration as a Guidance Option

The SMPY studies have shown that acceleration seems to have benefited these students. They conducted studies to elucidate whether accelerated students receive good grades, and found "students who enter college from two to five years early make good grades, win honors, and graduate on time" (Stanley & Benbow, 1983, p. 369; Stanley & McGill, 1986). Students who had been in fast-paced math classes early were also likely to continue in math/science later on. In fact, one gender difference they found was that girls who had not had challenging high school experiences and who had not crystallized their ambitions by age 18 were likely to drop out of math/science tracks (Benbow, 1992). This loss has great implications for counselors counseling academically talented females.

However, the belief that acceleration will harm the social and emotional development of academically talented youth has also been a strong one. The SMPY researchers conducted several studies to see whether this was the case, and they found that "acceleration benefits students academically while not detracting from social and emotional development" (Benbow, 1992, p. 116; Brody & Benbow, 1987). Southern and Jones (1991) said that

while the research evidence is clear that academically gifted students do not suffer by acceleration, "the evidence concerning social and emotional harm" is less clear cut (p. 134). Even the definitions of social and emotional maturity, adjustment, and development are not clear. Thus, it is more difficult to assess the potential impact of acceleration on the social and emotional development of academically talented children.

A rule of thumb is to consider each case individually, with a group of people involved in any decisions, including the student himself. Using the Iowa Acceleration Scale (Assouline, Colangelo, Lupkowski-Shoplik, Lipscomb, & Forstadt, 2003) is a must. This scale considers many factors, including the social and emotional, and involves the student in all decisions. Parents of academically talented youth have often used the strategy of accelerating their students by moving to a new school where they will be perceived freshly, and the peer reactions to skipping grades will not be so noticeable.

Career Development

Most states now have detailed career development planning programs. Students should be plugged into them as a matter of course along the way. From kindergarten through grade 12, certain steps are necessary. For talented youth, the issues are that the student will focus too early on a certain career having to do with their "thorn" or their talents, and not develop in a general education, a "Renaissance" way. This is especially a danger for performers. For students who will be entering long courses of study such as those leading to a doctoral degree, there is the issue of coping with delayed gratification and the concomitant need to pay off school loans for a long period of time. It is not at all uncommon for school loans to remain a burden until a talented person is in her 40s. The issues of whether going into such debt is worth it is a personal decision. The necessity to make long-range plans is key to this issue, as well.

Decisions made in high school are important but not irrevocable. The presence of "late bloomers" in the ranks of the talented is underresearched. In the literature on talented adults, most thinkers give a timeline that is somewhat rigid. The lives of those who would go into science, mathematics, and technology are said to be so circumscribed that one cannot make a world-class contribution if one does not get a Ph.D. in his or her early 20s (Simonton, 1994). Women and rebels need not apply. So few people make world-class contributions that the phenomenon may not be really worth talking about, even in talent development education circles. Students should be made aware of their potential whether or not they are on the timeline needed for world-class contributions. Reentry into a career path after years of childcare, or after bumming around the world and having

adventures, is possible. Making significant contributions to the chosen field is also possible, even after the age of 40, 50, and 60. Changing careers and trying something new is also possible. As Guindon and Hanna (2002) said, "Many counselors are aware that synchronicity—unpredictable instances of meaningful coincidence—can play a significant role in career opportunities," (p. 195) but they continue to follow a rigid, trait-based model of career development, a lockstep kind of model. They noted that many people are stuck in careers and with decisions they made long ago, but now they have changed, and are seeking careers that speak to their authentic selves. They went on to say, "Traditional career counseling approaches alone may not be sufficient in assisting an individual to find meaningful life's work" (p. 208). Many talented people have several careers, as do most people. There is no shame in changing direction.

Finding Mentors

The literature on mentoring is vast. Mentor programs are a vital part of the guidance scene in most high schools. In the field of talent development education, mentoring is a structured or unstructured relationship between an expert and a novice, where the expert teaches the novice the ins and outs of the domain. The mentor chooses the talented novice and the novice must usually meet three conditions: (1) be available, in proximity to the mentor, (2) be willing to absorb the values of the mentor, and (3) be attractive to the mentor (Arnold & Subotnik, 1995). Usually the novice resembles the mentor in ethnicity, family background, and gender.

The mentor provides the novice with judgment and evaluation according to the professional standards of the field: "Mentors model what students can become by showing the lifestyles, modes of thinking, professional practices, costs, and advantages associated with high-level achievement in a particular domain" (Arnold & Subotnik, 1995, p. 120). The mentor takes a risk to his or her reputation in sponsoring the novice for membership in the ranks of the domain, and so the novice is chosen carefully. The mentor communicates the tacit knowledge of the domain, the "unwritten, informal insider information about appropriate, adaptive, professional and career management behavior in a specific talent domain" (Arnold & Subotnik, p. 120).

There are three stages in the mentoring relationship: (1) initial stages, where the mentor encourages the novice to step into the river, to feel and experience the delights of the cool water, to smell the fresh air of the domain; (2) technical virtuosity, where the novice moves beyond the romance and begins the hard work of acquiring automaticity in the domain through intense self-discipline and practice—in this stage, the mentor models the end state for the novice; and (3) mastery, where the novice becomes an expert, a peer of the mentor—in this stage the mentor is in emotional

danger, for the novice may surpass the mentor and move beyond his or her teachings and modeling. If the mentor doesn't hold the novice with an open hand, the novice will not become a respected member of the profession, but a clone of his or her mentor. The difficulty with this process, say Arnold and Subotnik (1995) is that minorities and women may not be found attractive by the mentor, and so the process won't begin.

Siegle and McCoach (2005) offered many suggestions and alternatives in the mentoring process, among them the Student Developed Courses (SDC) based on the Schoolwide Enrichment Model (Renzulli & Reis, 1985) and on the Betts Autonomous Learner Model (1988). The two steps in this process are these: first, the student studies an area he or she would like to learn about, through independent study; and second, the student finds a mentor to guide the project. The mentors are people in the community and high school faculty members. Students receive one Carnegie credit for the yearlong course.

Multipotentiality

The guidance needs of talented students include the fact that many indicate a potential for achievement in more than one field or domain. This often causes confusion and stress. "What do I like?" "What am I good at?" It is not uncommon for high school and college students to vacillate, change majors, send for more brochures and pamphlets, all in a search for the one, true career. However, some research has shown that multipotentiality might not exist to the extent that it has been touted as existing (Gagné et al., 1996). They experienced difficulty when they tried to find people who were in the top 15% of two or more distinct domains of talents (as differentiated from aptitudes; see the Gagné model in Chapter 1)—for example, "high academic achievement coupled with athletic excellence or with artistic excellence" (p. 6). Gagné et al. concluded that the concept of multipotentiality, or *polyvalence*, as they called it, presents the same difficulties as most of the concepts in the field of the education of the gifted and talented: It is easy to find the most extreme cases, those who definitely are, or possess the trait, but it is very difficult to find those on the margins, who may or may not.

The issue of multipotentiality as a guidance issue may thus be overblown, except in the few cases where a person is definitely extremely talented in several areas. Perhaps the person with multipotentialities has many interests, but in what lies the extreme talent? In this, it must be the heart, or the *daimon*, that wins; which itch *must* be scratched for well-being and peace of mind? The counselor can aid in guiding the student toward realization of that passion, or "thorn." Another possibility for such students is to plan on having more than one career during a long lifetime.

Differences Between Highly Talented and Moderately Talented

The ongoing studies of highly mathematically and verbally talented youth also have application. In Benbow's 1992 review of SMPY research, comparing highly academically talented youth with moderately academically talented youth, the researchers found that indeed, there is no threshold such as implied by Renzulli (1977) and Getzels and Jackson (1962). The students who were in the top 25% of the top 1% achieved at a much higher academic level than those in the bottom 25% of the top 1%. That is, those who were moderately academically talented, or who did not score in the highest ranges of the SAT but who were still identified as academically talented, did not have as much potential for academic achievement as those who scored at the highest ranges. (Note: These findings were reiterated and confirmed by Lubinski et al., in the late 1990s and early 2000s). The students who had parents who had not attended college and female students were most at risk for not achieving their high mathematical potential, and these are the students to whom counselors should pay special attention. Counselors should note that family factors could be compensated for by the quality of course work in high school. Benbow (1992) said, "Achievers had experienced more challenging instruction" (p. 113).

Learning Styles of Talented Youth

The view that students who are high academic achievers have specific personality preferences types or learning styles has been explored by several researchers, among them Marlene Bireley (1991a). The mantra, "teach to the learning style" or "teach to the learning preference" is echoed by most writers on differentiation (cf. Renzulli, Tomlinson). Renzulli and Reis (2003) listed *learning environment* preferences, *thinking styles* preferences, and *expression style* preferences in their Total Talent Portfolio. The learning environments seem to be based on the Dunn, Dunn, and Price (1989) work: Inter/Intra Personal (self, peer, adult, combined-oriented) and Physical (sound, heat, light, design, mobility, time of day, food intake, seating). The thinking styles seem to be based on Sternberg's (1997b) work: Analytic (school smart), Synthetic/Creative, Practical/Contextual (street smart), Legislative, Executive, and Judicial. The expression styles were written, oral, manipulative, discussion, display, dramatization, artistic, graphic, commercial, and service (Renzulli & Reis, p. 192).

Many learning style instruments exist. Cassidy (2004) reviewed them, with comments on their reliability and validity. He noted that the vast proliferation of theories and instruments that purport to measure learning styles leaves the practitioner, as well as the researcher, in confusion: For example, the terms *learning style*, *cognitive style*, and *learning strategy* are

often used interchangeably, adding to the confusion. More than 30 different labels have been given. Cassidy noted that there seem to be three different theories about the derivation of one's learning style: cognitive-centered, activity-centered, and personality-centered. The following instruments are often used for assessment of learning styles:

1. *The Learning Style Inventory* (Dunn et al., 1989). This is a 100-item, self-scorable questionnaire that shows a person's preferred learning environment (light, sound, temperature, design); emotional environment (structure, persistence, motivation, responsibility); sociological preference (pairs, peers, adults, self, group); perceptual preference (auditory, visual, tactile, kinesthetic, mobility, intake, time of day); and psychological preference (global-analytic, impulsive-reflective, and cerebral dominance). Forms exist for both elementary and secondary students. This is the most widely used instrument throughout educational settings, and it has good reliability and validity.

2. *The Learning Style Profile* (Keefe & Monk, 1986). This is a 126-item instrument that was developed to combine features of other instruments into one comprehensive instrument. It assesses cognitive skills (information processing and memory), perceptual response (auditory and visual), and preferences for study and instruction.

3. *The Learning Style Inventory* (Renzulli, Rizza, & Smith, 2002) in the Scales for Rating the Behavioral Characteristics of Superior Students (SRBCSS). This is perhaps the most popular learning style inventory in gifted education.

4. *The Learning Style Inventory* (Kolb, 1976). This spoke of an Experiential Learning Model (ELM), which has four stages: concrete experience, abstract conceptualization, active experimentation, and reflective observation. Widely used, this 12-item, self-scorable questionnaire has been faulted for having reliability and validity problems, although it has shown that students with a convergent style get more correct answers on tests.

5. *The Gregorc Style Delineator* (Gregorc, 1982). This was popular in gifted education circles in the 1980s, as Gregorc toured the country speaking at state and regional gifted education conferences. The 40-item, self-scorable instrument, The Style Delineator, identifies four learning styles: concrete sequential, concrete random, abstract sequential, and abstract random.

6. *The Herrmann Brain Dominance Instrument* (Herrmann, 1981). This was widely used in the 1980s when the rage for right-brain/left-brain differences was at its peak.

7. *The Murphy-Meisgeier Type Indicator for Children* (Meisgeier & Murphy, 1987). This is one of only two instruments that focus on personality attributes as indicating learning style.
8. *The Myers-Briggs Type Indicator* (Briggs & Myers, 1977). This is the other instrument that focuses on personality attributes. See the description below.
9. *Kirton Adaption-Innovation Inventory (KAI*; Kirton, 1994). This is widely used in many research studies by the Creative Problem Solving Institute at the State College of Buffalo. Assuming that cognitive style has a relationship to one's creativity, "adapters" want to "do things better," and "innovators" want to "do things differently" (Cassidy, 2004, p. 430).
10. *Sternberg-Wagner Self-Assessment Inventory* (Sternberg, 1997b). This is used in many international studies, and is based on the Sternberg model of intelligence.
11. *Keirsey Temperament Sorter, II* (Keirsey & Bates, 1984). A new version is in development. It is designed to be used to sort out temperament, personality, and character.

Myers-Briggs Types and Learning Preferences

The most widely researched instrument among these is the Myers-Briggs Type Indicator (MBTI). It is a forced-choice instrument of 126 items. Based on the Jungian theory of personality type, the MBTI provides data on four sets of preferences: introversion-extraversion, sensing-intuition, feeling-thinking, and judging-perceiving. These preferences result in 16 learning styles, or types. A type is a combination of the four preferences.

The MBTI has been widely used in education, in business, and in counseling. Literature also exists on the MBTI and gifted students. Mills and Parker (1998) described cross-cultural similarities and differences between gifted students studying with the Center for Talented Youth at Johns Hopkins University, and with similar Irish students. These students were highly gifted, scoring in the top 1% on measures of cognitive ability. Myers and McCaulley (1985) described studies of National Merit Finalists (INFP), of gifted seventh- to ninth-grade males (ENTP) and females (ENFP); of creative men (INTP) and creative women (INFP), and of schoolteachers (ESFJ). N's received higher grades than S's and J's received higher grades than P's. It is notable that most Rhodes Scholars, chosen for their scholar-athlete qualities, prefer P.

The *Manual* (Myers & McCaulley, 1985) listed several hundred studies of various group, using the MBTI. The predominant type preference for academically talented students was NF (intuition, feeling). We have found the same thing in our studies of approximately 475 talented adolescents

(Piirto & Johnson, 2004). Ninth and tenth graders, ages 14 to 16 (M = 158; F = 316) were administered the MBTI. Gifted and talented teenagers, like creative and high achieving adults, prefer intuition and perception (NP). In my research (1992a, 1998e, 1999a, 2004) on creativity in domains, I found that the preferred N and P is universal in the MBTI studies done on visual artists, creative writers, scientists, mathematicians, inventors, entrepreneurs, actors, dancers, and musical composers.

What is the most commonly found MBTI type for educators? Betkouski and Hoffman (1981) studied 1,389 public school teachers ranging from Canada, to California and Florida. Their study found that the MBTI type, ESFJ, seemed to represent the majority of these educators; in the general population, ESFJ is also the preference of females. About two thirds of elementary and high school teachers prefer J, with about half of elementary teachers and 40% of high school teachers preferring SJ (sensing/judging). N (intuition) teachers are more prevalent in high school, with about half preferring N, while about a third of elementary school teachers prefer N. Only about a third of elementary teachers and high school teachers prefer P (perceiving). Thus the high preference for P (perceiving) in talented students outnumbers those of their teachers and of the society at large. Bireley (1991a) said that with the pragmatism and concrete disposition of the basic curriculum, and given that almost half of elementary and secondary teachers prefer sensing, it is not surprising that teachers complain that high-IQ students often "resist completing basic skills assignments" (p. 195).

While teachers of the gifted and talented also prefer judging, they do so not in the great proportions that regular classroom teachers do (Piirto, 1998a). Of the sensing-intuition preference dyad, the teachers of the talented preferred ENFJ. The intuition preferring types when coupled with the feeling preferring types show genuine concern about all aspects of the welfare of their students' social, as well as intellectual development. These teachers also prefer to interact on an individual basis and often will individualize instruction as needed. The presence of more intuition preference among teachers choosing to teach the gifted and talented might be an indication that they have gravitated toward teaching students who have similar preferences to theirs.

Within the various realms of the education profession, the types seem to gravitate to certain areas based on their combination type. While NF's are about one third of the teachers, few teachers prefer SP or NT. NT's usually prefer to teach in college; only about 8% of K–12 teachers are NT's. Those who prefer NT are often gaining the experience to get into graduate programs in order to become college professors. ENFP student teachers are often very popular among the students, but few of them seem to continue in the teaching profession. Keirsey (1978) said, "SJ teachers . . . are not only the types most likely to choose teaching (56 percent of all teach-

ers), but they are also the types who are most likely to stay in teaching as a lifelong career" (p. 6). The SJ type teacher may be especially intimidating to a sensitive artistic male, for 97% of the artistic males in the Piirto (1998a) study preferred P, and this confirms earlier studies, for in the creative males described in Myers and McCaulley (1985), 97% of the 112 creative men preferred N. Teachers of the talented, as well as regular classroom teachers need to be aware of this finding.

If most educators tend to prefer sensing, how will they meet the needs of the Intuition-preferring artistically and academically talented students that exist in their classrooms, for most talented students are in the regular classroom most of the time during their elementary school years? The answer lies in teachers having a full understanding of the attributes of the N and S types. Briefly, the S types rely on their senses for understanding and learning. They perceive reality as pieces funneled through their senses. If they cannot use their senses, learning will be minimized. On the other hand, the N types are quite the opposite. They rely on their hunches or inner sense. They perceive reality as a world of opportunity and possibilities. The big picture is clear to them, and they create ways to be an integral part of it. As teachers understand these differences between the insight-driven N students and their own preference for the concrete S activity, they can then begin to plan and implement the mode of instruction that will produce the highest results for each type's learning preference. Discovery teaching and project-based assignments are preferences for N's. They do not often like a fill-in-the-blanks, only-one-right-answer style of teaching.

The NP's may have a particularly difficult time being understood and challenged by their SJ teachers in elementary and high school, but as they grow older, more N preferring teachers will appear (however, these will most likely be NJ's, although P preferring professors seem to gravitate toward the arts), and in fact, studies of college professors have shown that most of them prefer N (e.g., see Cooper & Miller, 1991). It could be said without much irony that those with the preference for P are poetic visionaries, and their visions are often undervalued in a prosaic work and school environment.

McCaulley (1976) stated that each of the type combinations seems to have its greatest opportunity of success and satisfaction in fields that more closely match the characteristics of that type. According to Jones and Sherman (1979), NP's require the most counseling. They often seem more nonconformist to rules and regulations, and are willing to lock horns with authority. These students can be procrastinators but are usually good at making the system work for them.

Studies of performing and practicing creators showed they are more often intuitive (N) than sensing (S; Myers & McCaulley, 1985). In fact, in a study of 85 creative and academically talented adolescents, 68% were found

to prefer the N dimension on the Myers-Briggs Type Indicator (Piirto, Gantz, et al., 1997), while in the general population only 25% prefers N (Myers & McCaulley). This high proportion of the N preference among creative people—including scientists, mathematicians, artists, and writers—seems a prime characteristic. Geiger and Martin (1992) also used the Myers-Briggs with high scorers on the SAT and found that the most frequent MBTI types were INTP (introversion, intuition, thinking, and perceiving); ENFP (extraversion, intuition, feeling, and perceiving); and INFP (introversion, intuition, feeling, and perceiving).

Some research has been done on which types prefer which teaching/ learning environments. Eggins, in 1979, studied junior high students using three models of teaching: (1) The inductive approach, or Bruner's model; (2) the didactic approach, or Ausubel's model using advance organizers; and (3) the concrete to abstract model, or Gagné's model. Students with high intelligence and the intuitive preference liked the Bruner model. High intelligence judging (J) preference students did also. Further matching of type preference with learning preference has shown that not surprisingly, extraverts like to learn in groups, while introverts "not only did not see experiential training as helpful; but were seen by peers as not participating" (Eggins, p. 131). This might explain the resistance of many academically talented youth to cooperative learning. Probably those with preference for introversion (I) wouldn't like the cooperative learning situation.

Intuitive types (N) like self-paced learning and situations that let them learn on their own. They like essay questions and often feel academically superior to other students; at the same time, they have high expectations of themselves that they will achieve high grades. Faculty members find that intuitive types often make the most insightful remarks in class. Thinking types (T) like classes that are laid out for them; classes that have clear objectives and goals, classes with structure. They also like teachers to lecture and to demonstrate. Feeling types (F) have more preference for group activities in classes, and they often report that their social lives interfere with their studies. Judging types (J) work efficiently on their own and can manage their time well. They hand assignments in on time, and they are willing to take courses in improving their study skills or their SAT scores. Like thinking types (T), judging types like orderly classes with clear objectives, and don't mind working in workbooks or listening to lectures.

Perceptive types (P) often report that they procrastinate and they start too late on their work. They like experiential learning, and they are often able to cut through and identify the real issues in problems. In summary, while bright students with high intuition (N), feeling (F), and perception (P) were receptive to teaching/learning situations that used an inductive approach, high-achieving students of the J and T preference prefer to learn the traditional way, and might possibly have to be coaxed to participate in

such things as "human relations" activities and the like. Like students with S preferences (Sensing), J and T preferences like courses that are laid out clearly, where expectations are made clear, with teacher lectures, workbooks, laboratory exercises, and point systems set out with no surprises. The Myers-Briggs Type Indicator, if one subscribes to the Jungian theory of personality preferences, is a widely used, well-validated instrument with many applications for understanding academically talented high school and college students.

Concerns About Learning Style Theorizing

Stereotyping is a major concern, especially when certain ethnic groups are thought to have certain learning styles. However, recent literature has disclaimed the importance of learning styles as pigeonholing certain groups for less rigorous education. Well-meaning research showed that American Indians prefer to learn by observation: "The American Indian and Inuit children were most successful at processing visual information and had the most difficulty performing well on tasks saturated with verbal content" (Deyhle & Swisher, 1997, p. 140). When such information is used to stereotype students, the cultural deficit model—that certain cultures are deficient—"has been used to stereotype students into specific group styles and to ignore both individual and tribal differences" (p. 151).

Likewise, Howard Gardner (1995b) evinced a worry about the use of his multiple intelligence theory (MI) in schools. He published an article on the "myths" that are being propounded about the multiple intelligences. One of the myths was that multiple intelligences were learning styles. An intelligence is a construct, not a domain, discipline, or learning style. MI theory is empirical and compatible with general intelligence theory. Evidence for this is that a person cannot learn mathematics at the higher levels through a strength in bodily-kinesthetic intelligence. Ultimately each intelligence has its own codified symbol system and a person who is learning a domain based on that intelligence must learn and be able to solve problems within that code.

Brain-Based Learning

The latest flavor of the month in education circles seems to be *brain-based learning*, where speakers come around and entreat teachers and administrators to place diagrams of the brain on their bulletin boards, and to spend a lot of money on materials that are supposed to teach to children's left- or right-brain dominance. Without wanting to foil entrepreneurial efforts in education, I must point out that a search of the empirical literature and of research studies shows that concluding that certain practices teach to certain areas of the brain is not research-based. If one

searches scholarly articles on brain dominance, one finds a few disserta-tions using learning style inventories to pigeonhole certain occupations as one or another type. If one searches for research on the right brain or left brain, one finds research that is done on brain-*damaged* people. The research that certain educational approaches are best for certain brain pref-erences of people who are *not* brain-damaged just doesn't seem to be there. Much of the brain-based curriculum seems to be based on learning theory that student teachers learn in their basic educational psychology courses. It's not harmful and represents pedagogy derived from what some research has suggested, but it's not yet prudent to say that certain brain research suggests curricular directions. Caveat emptor. Buyer beware.

Testing

Most schools administer standardized achievement tests at all levels. Guidance counselors at all grade levels should "get their hands dirty" with these tests, and mine them for the information that they contain. Much can be gleaned from just looking at the cumulative records of students. One school I consulted with had its tests piled in unopened boxes in the counseling office. The stickers with the test scores were put on the students' folders by the secretaries; the counselors had no clue as to who were their talented students or who were their high achievers. This is an extreme case, but many standardized achievement tests contain useful diagnostic infor-mation, especially about skills.

Value-Added Assessment

The value-added approach to assessment, which has become very pop ular in certain states, encourages a diagnostic look at standardized achieve-ment tests. This way of looking at test data has implications for gifted and talented students who score at or near the ceiling on tests from year to year. Do these students make progress, or do they stay the same? Value-added assessment measures whether students grow, comparing the same students from year to year, instead of different groups of students in different years. Begun in Tennessee, the value-added way of looking at test data is gaining popularity. A backlash to No Child Left Behind ways of assessing minimal competencies, value-added assessment is diagnostic, and can tell in which areas a student needs work. Because most gifted and talented students already have minimal competency, a value-added way of looking at their test scores can be diagnostic. When I was a school principal of a school for gifted children, I charted, for each teacher, the skills in which each student had weaknesses. Though the overall averages were high, individual students needed work in individual skills. Test results can be used for diagnostic instead of merely descriptive purposes.

Talent Searches and Out-of-Level Testing

The talent searches conducted by the Center for Talented Youth (CTY), and regional talent search organizations (e.g., Northwestern University's Midwest Talent Search and Duke University's Talent Identification Program [TIP] rely on out-of-level testing.) At the higher levels standardized tests are inaccurate; the numbers of items in any category of skill is necessarily small so that the test can be comprehensive. If a child gets all the items right, the school has no idea what the child's actual achievement level is. The tests give a projection of level, in a grade equivalent, but these are just projections, and projections at the upper levels are also inaccurate because of sampling and number of items in the skills. If a child in the third grade receives a grade equivalent of 12.9 (12th grade, 9th month) on the standardized achievement test, this does not mean that the child could go to the senior high school class and sit there and achieve with the 12th graders. It means the child got all the items right on the third grade test.

Higher level tests should be administered to students who score in the top ranges, so that their achievement levels can be clearly assessed and accurate placement can be made (Lupkowski-Shoplik & Assouline, 1993; Olszewski-Kubilius & VanTassel-Baska, 1990; Stanley et al., 1992). Schools that do out-of-level testing are quite rare. That is why opportunities for such children through the talent search programs are important. Usually it is the coordinator of programs for the talented who makes counselors aware of talent search programs, and some coordinators have been met with resistance.

The identification of such talent potential when the students are in junior high school is extremely important, so their course selections can be made with care. Students who attend special accelerated summer programs often complete a year of mathematics in an intensive 3 weeks. A related problem comes when the school system will not give the child credit for the summer work, operating on the assumption that a Carnegie unit takes so much time over so many months and to do the work in a shorter amount of time is not possible. Julian Stanley, who founded the SMPY (Study of Mathematically Precocious Youth) program at Johns Hopkins, said this about the tyranny of the Carnegie unit: "The age-in-grade lockstep is somewhat like the practice of the innkeeper Procrustes in Greek mythology, who tied travelers to an iron bed and amputated or stretched their limbs until they fitted it" (Stanley, 1989, p. 194).

Proficiency Testing

Currently the schools are in a tizzy about proficiency testing. Whole curricula are being modified and teaching styles and methods are being changed, so that the schools can score within acceptable levels on proficiency tests. Some of the tests are high stakes; in some states students can-

not graduate from high school without passing a statewide examination for proficiency. Proficiency tests have not been studied to any extent for how they relate to the most administered standardized achievement tests such as the California, the Iowa, and the Metropolitan. If studies have been done, they have been done comparing the tests at the lower ends and not at the high ends. What does *proficiency* mean for academically talented students and for those who help them with their education? Will the standards in the schools be lowered to the mean, the norm, of however proficient is defined, and will no one worry about how one can teach those who are above proficient?

Program Articulation

Another guidance issue that goes along with course taking is the fact that program articulation must take place from school to school within a school system. Planned program articulation guarantees that repetition does not occur, and that the whole system is operating together, not school by school, or even class by class. High schools often balk at giving junior high school students Carnegie unit credit for courses taken while they are in junior high school. Talented mathematics students are often the victims of this bureaucratic inflexibility, for the development of mathematical talent requires course taking in a sequential manner. The school bureaucracy relies on a schedule and if an anomaly, a talented student, comes along who needs a flexible schedule so he can go to the high school and take mathematics and get Carnegie unit credit for that mathematics and then come back to the middle school to take his social studies and English classes, the schedulers (often counselors) may not like it.

Vocational Guidance

The guidance counselor should have a battery of vocational interest tests that can be used with all students. Talented students especially need vocational counseling because they are often told, "you can do anything that you want to." If a person can do anything she wants to, the burden is heavy, for what does she really want to do? Often, students know only about certain professional choices—doctor, lawyer, scientist, engineer—but do not know about others—linguist, diplomat, historian, professor. Here are some suggestions to improve vocational selection for talented students:

1. Mentoring programs that start early will allow a student to shadow people in certain professions the student may be interested in.
2. Make a battery of vocational interest inventories available to students early. Many states have computerized career education

programs that can be tapped into from the counseling office. The Self-Directed Search and other like instruments can be used fruitfully. The counselor should not wait for student initiation of the process, but should make sure that all talented students take advantage of already present career planning opportunities early.

3. An articulated career education plan beginning in the elementary grades and proceeding through middle school and high school is important. This should include role models, mentors, career awareness, field trips, internships, and special summer or extracurricular opportunities.

Many people show snobbery about vocational programs. This is mistaken. The need for highly trained technical people keeps growing. These technical jobs are often high paying, and along with them goes a certain job security, often along union lines. But, even if there isn't job security such as in old-time union days, the technically trained hospitality, health, business, industry, agriculture, retail, and family and consumer sciences graduate will soon find another job as his or her knowledge is desperately needed. On the other hand, the sadness of the recent Ph.D. graduate desperately seeking employment in the sciences or in literature is reflected in the hundreds of resumes that pile up in college offices when even a low-level academic position is offered. Something has gone wrong with our value system about what work is admirable and what is not.

Volunteerism and Service

A requirement for high school graduation in many districts has become the mandatory volunteerism and service requirement (an oxymoron to be sure). The results of such programs have been shown to be mixed, but generally positive. Students who tutor, who visit people in hospitals, who coordinate programs in the community almost invariably state that the experience was worth it. One academically talented high school girl in a case study done by one of my students credited her career in medicine to her candy-stripe volunteerism while she was in high school. Again, the altruistic nature of many of the students is satisfied when they learn to give and not just to take. Middle school students have also volunteered in their communities as part of the curriculum for their studies (Gosfield, 1993).

Gender Difference Concerns for Guidance Intervention

Guidance counselors and educators of the talented should be aware that there are strong gender differences among talented youth. Some of the

most profound gender differences have shown up in achievement, in testing, in underachievement, in course taking, and in parents' attitudes and school personnel's behaviors toward their girls.

Even though girls get better grades in high school and college, boys receive better scores on the SAT and are therefore more likely to become National Merit Semifinalists. A group called the National Center for Fair & Open Testing (see http://www.fairtest.org) said that the National Merit group said that boys take harder courses, especially in mathematics and science, which gives them an edge. For now, suffice it to say that it is true that females are often guided into taking fewer and less rigorous high school courses, and that the more rigorous the junior high school and high school courses for academically talented youth, the more they will achieve in college and perhaps after college.

However, in the early 2000s, the numbers of college students were majority female, and so were the number of college graduates. This led people to wonder, what is happening to the boys? Kerr and Cohn (2001) noted that the school setting is not friendly to boisterous boys. Pollack (1998) cited the "boy code," which prevents boys from showing their emotions and harnesses them into certain stereotypical behaviors.

Gender Differences in Testing

Counselors and educators of the talented should also be aware, in helping students to plan for courses and for tests, that there are great gender differences in test results. In 1992, Julian Stanley and his colleagues reported that of 84 commonly administered achievement tests, 83 showed statistical differences favoring males. This has implications for college and graduate school admissions. These tests included the Differential Aptitude Test, the American College Test, Advanced Placement Tests in all fields, the Graduate Records Examinations, and the Scholastic Aptitude Test. The results of these tests cannot be attributed to test bias or gender bias in test items, according to both Stanley and Benbow (1992). Stanley noted that most test makers throw out items that show gender differences, and that studies that have been showing that gender differences are declining are thus misleading. Benbow noted that "there may be many more exceptionally talented males than females in mathematics" basing her conclusion on data from more than a million subjects tested over 20 years, and concluding, "the gender difference in mathematical talent is not an artifact of test item bias" (pp. 99–100).

The debate rages on. In 2005, Larry Summers, the president of Harvard University, made a statement that genetic, innate differences might explain the reason why fewer women go into science and mathematics. A firestorm of protest ensued, whereby the feminists (who believe the sexes are equal

both genetically and socially) and the "others" (those who are not feminist) weighed in. "How dare he say this?" was the cry. Again, the arguments for fairness in testing and for reconstruction of tests became news. Saletan (2005) said this in *Slate Magazine*:

> Let's be clear about what this isn't. It isn't a claim about overall intelligence. Nor is it a justification for tolerating discrimination between two people of equal ability or accomplishment. Nor is it a concession that genetic handicaps can't be overcome. Nor is it a statement that girls are inferior at math and science: It doesn't dictate the limits of any individual, and it doesn't entail that men are on average better than women at math or science. It's a claim that the *distribution* of male scores is more spread out than the distribution of female scores—a greater percentage at both the bottom and the top. Nobody bats an eye at the overrepresentation of men in prison. But suggest that the excess might go both ways, and you're a pig. (¶ 9)

Counseling Issues Among Talented Youth

What are foci that counselors of the talented should have? There are several ways to go, but issues among gifted youth, as with the rest of young people, have age-related cycles. For younger academically talented students and others, issues of homework and who does it when; school and playground bullying and competition; and peer acceptance and friendship all have importance. The high incidence of introversion among gifted youth may also lead to difficulties with their peers. Others state that academically talented youth have counseling needs in the areas of self-concept, self-esteem, perfectionism, bullying, and underachievement.

There are several counseling issues that have been particularly applicable to academically talented students. Among them are anger, attention disorders and other medical conditions, boredom, bullying, creativity, delinquency, depression, dropping out of school, gender related issues, issues that come along with having a very high IQ, introversion, intuition, meeting the expectations of others, motivation, overexcitabilities or intensities, peer relations, perfectionism, overachievement, resilience, self-concept/self-esteem, stress, sexual identity, and underachievement (see Table 11.3).

Space does not permit a long discussion of each issue in Table 11.3, but following is an overview of how counseling is often helpful.

Table 11.3

Counseling Issues for Talented Students

Anger (Cross, 2004; Dahlen, Martin, Ragan, & Kuhlman, 2004; Goleman, 1995; Vail, 1994; Webb et al., 2005)

Attention disorders and other medical conditions (Webb et al., 2005)

Genuine boredom (Dahlen et al., 2004; Vail, 1994)

Bullying (Allen, 2006; Peterson & Ray, 2006a, 2006b)

Creativity (Fishkin, Cramond, & Olszewski-Kubilius, 1999; Lovecky, 1993; Lynch & Harris, 2001; Myers & Pace, 1986; Piirto, 1992a, 1998e, 2004; Reynolds & Piirto, 2005; Rimm, 1996)

Delinquency (Fiedler, 1999; Myers & Pace, 1986; Neihart, 2003b)

Depression (Baker, 1995; Bartell & Reynolds, 1988; Blatt, 1995; Delisle, 1992; Jackson, 1998; Jackson & Peterson, 2003; Jamison, 1993; Kerr, 1992; Myers & Pace, 1986; Neihart, 2003b; Piirto, 1992a, 1998e, 2004, Silverman, 1993; Webb et al., 1982; Wurtzel, 1994)
• Clinical (Jamison, 1993, 1995; Wurtzel, 1994)
• Existential (Kerr, 1992; Silverman, 1993; Webb et al., 1982)
• Suicide (Baker, 1995; Coleman & Cross, 2005; Cross, 1996a, 1996b; Cross, Gust-Brey, & Ball, 2002; Delisle, 1992; Myers & Pace, 1986; Webb et al., 1982)

Dropping out of school (Myers & Pace, 1986; Peterson, 2002)

Gender related issues
• Gifted girls' unique difficulties (Kerr, 1985, 1991, 1997; Orenstein, 1994; Piirto, 1991b; Pipher, 1994; Silverman, 1993; Ziegler & Heller, 2000)
• Adolescent females' fear of success (Blackburn & Erickson, 1986; Kerr, 1985, 1991, 1997; Pipher, 1994)
• Boys' difficulties (Alvino, 1991; Hébert, 1991, 1996; Kerr & Cohn, 2001; Kline & Short, 1991)
• Developmental immaturity of young academically talented boys (Blackburn & Erickson, 1986; Kerr & Cohn, 2001)

Very high IQ (Feldman, 1986; Gross, 1993; Hollingworth, 1926; Morelock & Feldman, 1991; Shaywitz, Holahan, Freudenheim, Fletcher, & Makuch, 2001; Silverman, 1989b; Tolan, 1992a, 1992b)

Introversion (Mills & Parker, 1998; Myers & McCaulley, 1985; Piechowski, 1990, 1997a; Piechowski, Colangelo, Grant, & Walker, 1983; Piirto & Johnson, 2004; Sak, 2004; Silverman, 1993, 2003b)

Intuition (Myers & McCaulley, 1985; Piirto, 1992a, 1998e, 2004)

Meeting the expectations of others (Delisle, 1992; Miller, 1982, 1997a; Myers & Pace, 1986; Rimm, 1986; Vail, 1994)
• Narcissism (Miller, 1982, 1997; Webb et al., 2005)
• Parental worship (Feldman & Piirto, 1995, 2002; Vail, 1994)

Motivation (Hong & Aqui, 2004; Lee, 2002; Moon, 2003; Patrick et al., 1999; Pfeiffer, 2002; Piirto, 2002b; Webb et al., 1982)
• Entelechy (charisma, drive; Lovecky, 1993)

Overexcitabilities (intensities; Delisle, 1992; Lovecky, 1993; Piechowski, 1979, 1991, 1992, 1997a, 1997b; Silverman, 1993; Webb et al., 2005)
• Perceptiveness (Mills & Parker, 1998; Piirto, 1998b; Piirto & Johnson, 2004)
• Sensitivity (Edmunds & Edmunds, 2005; Kerr & Cohn, 2001; Lovecky, in Silverman, 1993; Piechowski, 1979, 1992, 1997a, 1997b, 2003; Piirto, 2004)

Peer relations (Delisle, 1992; Kerr, 1992; Lee, 2002; Myers & Pace, 1986; Patrick et al., 1999; Webb et al., 1982; Silverman, 1993)
• Relationships of very high-IQ students (Silverman, 1993)
• Intimate relationships (Kerr, 1992; Kerr & Cohn, 2001)

Perfectionism (Adderholdt, 1999; Adderholdt-Elliott, 1987, 1991; Blackburn & Erickson, 1986; Blatt, 1995; Delisle, 1992; Dixon, Lapsley, & Hanchon, 2004; Kerr, 1991; Nugent, 2000; Peterson, 2002; Ramsey & Ramsey, 2002; Schuler, 2003; Silverman, 1993; Speirs Neumeister, 2004; Webb et al., 1982)
• Experience of failure, or of not succeeding (Blackburn & Erickson, 1986)

Overachievement (Myers & Pace, 1986)

Resilience (Bland, Sowa, & Callahan, 1994; Block & Kremen, 1996; Ford, 1994a; Hébert, 1996; Jenkins-Friedman 1992; Reis, Colbert, & Hébert, 2005; Terr, 1990)

Self-concept/ Self esteem (Baumeister, Campbell, Krueger, & Vohs, 2003; Colangelo, 1997, 2003; Dai, 2001; Delisle, 1992; Jayson, 2005; Jenkins-Friedman, 1992; Luscombe & Riley, 2001; McCoach & Siegle, 2003; Olszewski-Kubilius & Turner, 2002; Rimm, 1995, 1996; Robinson, 2002; Rogers, 1992; Silverman, 1993)

Stress (Kerr, 1991; Webb et al., 1982)

Sexual identity (Friedrichs, 1997; Lind, 1997; Piirto, 1992a, 1998e)

Underachievement (Blackburn & Erickson, 1986; Colangelo, 1997, 2003; Delisle, 1992; Hyllegard, 2000; Myers & Pace, 1986; Reis & McCoach, 2002; Rimm, 1986, 1990b, 1996; Seeley in Silverman, 1993; Ziegler & Heller, 2000)
• As a result of learning disabilities (Seeley in Silverman, 1993; Bireley, 1993; Reis & McCoach, 2002)

Anger

Anger in talented students happens the same way it does in everyone: The amygdala is hijacked, as Goleman (1995) says. Vail (1994) described the case of a talented boy who finally snapped, smashing glass:

> Ben's class had thirty-two kids and one teacher—a far cry from the seventeen students, a teacher, and an assistant he had before; and because of a budget cut, there was no music teacher. Music had been Ben's favorite subject at his other school. Because the classes were large, Ben's teachers during those three years kept everyone moving in lock step through the curriculum, making it hard for a shy child to make friends. Thoughtful and imaginative, Ben found no outlet for his intellectual or imaginative energies in school, and the rigidity of the scheduling—mixed with the need for quiet in large groups—meant there were few opportunities for the kind of spontaneous enjoyment which leads to friendship. (p. 96)

An unpublished study mentioned in Webb et al. (2005) conducted by Olenchak and Hébert on the school shootings in the late 1990s and early 2000s estimated that 85% of the shooters "either had been identified as

gifted children or could now in retrospect have been identified as gifted children" (p. 65). Suggestions for counseling the angry student include counseling for recognition of what situation brings the anger out, when the instinct overwhelms the rationality. Anger often occurs during the same kinds of challenges. The student becomes aware of this and uses "emotional intelligence" to bring the anger past the prefrontal cortex so he can deal with it. The sensitivity and perceptiveness of the gifted and talented student makes him or her see the hypocrisy in being praised for achievement while also being considered, odd, freakish, or weird for winning a spelling bee or for coming in first in academics. This may lead to anger in some students.

However, as one Presidential Scholar said in the Lamont, Kaufman, and Moody (2000) study, the need to be first is also present in some real and tangible way:

> We wanted to be at the top of the class, wanted to know our stuff . . . I guess there are a lot of issues that surround the whole, you know, "I'm Number One" thing. There's personal satisfaction and there's the reflection on your school and on your family and the respect that other people give you. I think now the reason that I work hard in college is partly motivated by my past desire to want to be at the top somewhere. But it's also that I really want to know the material because it's probably going to be relevant to what I want to do in the future. (p. 208)

Attention Disorders and Other Medical Conditions

The diagnosis of gifted and talented children as having ADHD and ADD has come to the attention of professionals in the field. In 2005, Webb and colleagues published a book called *Misdiagnosis and Dual Diagnoses of Gifted Children and Adults*, where they addressed this problem and others having to do with ideational and anxiety disorders such as Asperger's syndrome; Schizoid Personality Disorder; mood disorders, such as bipolar disorders; learning disabilities, such as dyslexia; sleep disorders, such as insomnia and hypersomnia; allergies, asthma, and reactive hypoglycemia; and relationship issues, such as power struggles between the child and authority figures.

A diagnostic protocol was given for each of these. A rule of thumb regarding attention disorders is that often the attention disorder is selective; that is, it happens only in school, and not when the child is concentrating on an area of passion at home. Webb et al. (2005) stated,

> most diagnosable behavioral disorders occur relatively independent of the situation, and only rarely will a situation cause the symptoms

to predictably disappear. This is not the case with gifted children and adults. For them, problem behavior patterns typically are greatly reduced or vanish entirely when the person interacts with other gifted persons. (p. 205)

For more on this topic, see Moon (2002) and Cramond (1995).

Asperger's syndrome (or disorder) is a form of autism that also affects gifted and talented students. Learning disabilities are of several different types. All these are discussed more thoroughly in Chapter 12, which concerns gifted and talented students with special needs.

Genuine Boredom

Boredom in a class is of three types: (1) boredom because one knows the material, (2) boredom because one doesn't know the material, and (3) boredom because one is not interested in the material being talked about. Little in the literature on counseling suggests what the powerless student can do when subjected to Boredom (1)—repeated drill and practice in material he or she already knows. Excruciating boredom, when time passes so slowly it is as if a giant were dragging its feet down a long corridor, should be recognized. Alternative activities, testing out of a class, and acceleration to a higher level may be suggested as a possibility. Boredom (2) can be remedied by piercing a hole, shedding some light into the material so that the student can penetrate it and begin to understand (e.g., the subject of philosophy or of calculus is often impenetrable at first). Boredom (3) can be helped if the teacher is canny, wise, cunning, funny, and theatrical.

Dahlen and colleagues (2004) noted that boredom leads to anger: "Boredom due to a lack of external stimulation predicted one's propensity to experience anger, maladaptive anger expression, aggression, and deficits in anger control" (p. 1615).

Bullying

Recent studies have shown that gifted and talented students are both bullied and are bullies. Peterson and Ray (2006b) found that bullying is prevalent in schools. In a study of eighth graders, they found that 67% had been bullied. Sixth grade was the year when most bullying took place. They listed 13 types of bullying: name-calling; teasing about appearance, intelligence, grades, family, and social status; knocking books; taking possessions; damaging possessions; threatening; intimidating; hitting and punching; pushing and shoving; and beating up. Name-calling and teasing about appearance were the most common kinds of bullying. The most emotionally troubling kind of bullying was teasing about appearance.

Those who were bullied in sixth grade sometimes became bullies in eighth grade. Peterson and Ray interviewed gifted and talented students about being bullied and stated, "being interested in learning and achievement can contribute to vulnerability, at a time of tenuous identity" (p. 263). Bullying by and to girls continued longer than with boys. Psychological androgyny might also be a factor: "Gifted males who embrace their interest in the arts, are highly motivated to achieve academically, and/or are small in stature, and gifted females who are leaders, athletes, engineers, or tomboys all may be targeted by bullies, probably especially in middle school" (p. 263).

Creativity

That being creative would lead to a need for counseling is sad but true. The student striding down the halls with spiked hair, clothes from the thrift shop, five earrings in one ear, her nose pierced, clutching her copy of Jack Kerouac to her breast, and smelling faintly of incense or patchouli perfume, is making a statement. "I'm different. I'm creative." Her grades are all A's in her literature course where her favorite teacher reigns. In math, she barely hands in the homework, coasting to graduation on C's. She had a poem published in a literary journal sponsored by a major university writing program, but her counselor doesn't know that such a publication is different from the typical poetic publications of high school students, vanity anthologies in which the students have to pay to have their work printed and have to pay to get a copy. She needs to learn how not to be so cutting in her withering verbal barbs; people stay away from her because of her sharp tongue, and while she doesn't mean to be unkind or seem superior, she is taken as such by her teachers, as well as her peers.

The young rock musician languishing in the third period detention hall in his black leather jacket and his engineer boots spends many a night in the garage working out some new songs with the band for the gigs they play on weekends. Diagnosed as dyslexic, he has not read one book for the past 2 years. He is smart, though; he can talk his way out of anything, his teachers say, but this time he went too far. He was late again and cut school yesterday. His parents, themselves musicians, have a house full of interesting friends who crash there when traveling through town. They had backstage passes to a concert and didn't get home until 5 a.m. He's not old enough to drive, and so he had to stay with them while they partied. He needs flexibility in scheduling and intervention for his dyslexia, books on tape, and counseling about the importance of high school graduation in the long run.

Rimm (1995, 1996) has written on intervention for the creative underachiever, called "Creative Chris," one of the several personas in her group of "dominant nonconformers" (Rimm, 2003, p. 431), and she suggests a

behavioral approach, which may create more opposition in certain children (see Webb et al., 2005, for characteristics of oppositional disorders). Others (Kessler, 2000; Reynolds & Piirto, 2005) suggested what is perhaps a more loving approach, a recognition that the "soul" of the creative child may not be being fed in the common elementary and high school. Reynolds and Piirto said, "In our test-driven and socially constructed definitions of who is or who is not gifted and talented, we lose sight of the *mystery of exceptionality* in people" (p. 164). Klein (2005) said,

> If a case is to be made for addressing the soul in education, teaching, learning, and curriculum, the soul must be understood as Energy, and that attention to the inner lives of students will not engage them in religious or devotional practices in the classroom, but rather in the development of intuitive, emotional, creative, artistic, cognitive ENERGY.

Delinquency

While there is little literature about the incidence of delinquency among high-IQ students, that is probably an artifact of the way that giftedness is tested and not of the way that giftedness exists. The gang leader who keeps all the accounts of the drug deals he oversees, is he not bright? The confounding of giftedness with goodness is pervasive, as Margolin (1994) pointed out. But, the 10 core attributes of giftedness—communication skills, imagination/creativity, humor, inquiry, insight, interests, memory, motivation, problem solving, and reasoning (Frasier, Hunsaker, et al., 1995)—exist outside the law, as well as within it. Neihart (2003a) suggested that while delinquency in identified students is rare, it still exists.

Depression

Depression is of several types. A person may experience bipolar disorder (manic-depressiveness), and this seems to be more common among artists, writers, musicians, and other creative people than among people with talents in the sciences and mathematics. Clinical depression not of the bipolar variety also is common among highly intelligent people. The diagnosis of bipolar or monopolar depression is made by medical people and licensed psychologists and not by school counselors, teachers, or parents. Webb et al. (2005) listed the criteria for depression, and stated that the misdiagnosis and dual diagnosis of depression may be confusing for people who deal with gifted people.

Existential depression is depression when one considers the meaning of life and how one fits into it and what one can do about it. Students

may go into depression as they become relativists; that is, when they grow and develop into considering other points of view as having value, and when their own family-based values are in question. The Dabrowski theory of positive disintegration calls this type of depression "multi-level," and the emphasis is on *positive*, for one cannot grow without questioning.

Although the tragic popularization of famous suicides of talented students has hit the newspapers, Cross (1996a; 1996b) indicated that suicide seems no more prevalent in the talented population than in other populations. In a case study technique he called *psychological autopsy*, he found three themes in the suicides of talented adolescents: depression, suicide contagion, and overexcitability. Existential depression may become clinical depression, as Elizabeth Wurtzel, a talented young Harvard graduate who experienced chronic depression, described in her book, *Prozac Nation* (1994):

> Sylvia Plath killed herself in 1963, before there were slackers and before there were even hippies. She killed herself because she was depressed, the same as Ernest Hemingway, Vince Foster, and so many anonymous others. No one shoots himself in the head because he's had a bad fishing season or because the *Wall Street Journal's* editorial page says mean things about him. Depression strikes down deep. The fact that depression seems to be "in the air" right now can be both the cause and result of a level of societal malaise that so many feel. (p. 351)

Dropping Out of School

The incidence of dropping out of school affects academically talented students. A study of Hispanic females in Texas showed that many who had been in programs for the gifted and talented dropped out (Lashaway-Bokina, 1997). A study of students in classes for young unwed mothers in Ohio revealed that 10% of them had been in programs for the gifted and talented (Salvo, 1992). A review study of American Indian students (Deyhle & Swisher, 1997) indicated percentages of dropouts ranging from 35% to 69%.

Demographic factors that contribute to dropping out are

> being two or more years behind grade level, being pregnant, coming from a household where the mother or father was not in the home when the youth was 14 years of age, having relatively little knowl-edge of the labor market, low classroom grades, negative school

attitudes, and delinquent behavior in junior high school. (Deyhle & Swisher, 1997, p. 126)

Students often felt that they had been "pushed out" of school. Were some of these students talented? Undoubtedly.

Gender-Related Issues

Gender differences should be taken into account by counselors. The adolescent passage is particularly risky for both boys and girls. Pipher (1994), in her devastating collection of case studies of young teenage girls, included many artistically and academically talented students in her warning of the risks of eating disorders, self-mutilation, sexual abuse, date abuse, violence, divorce, drugs and alcohol, problems with mothers, problems with fathers, and the like. One of the problems that is pervasive among girls is what Pipher called "lookism," or the desire to look like the models in the magazines and on television, and the resultant discontent with one's own body and its own look. Social isolation, while a problem in adolescence, often strengthens girls. She called those who survive "strong girls." Pipher said:

> Many strong girls have similar stories. They were socially isolated and lonely in adolescence. Smart girls are often the girls most rejected by peers. Their strength is a threat and they are punished for being different. Girls who are unattractive or who don't worry about their appearance are scorned. This isolation is often a blessing because it allows girls to develop a strong sense of self. Girls who are isolated emerge from adolescence more independent and self-sufficient than girls who have been accepted by others. (p. 266)

The strategies that have been used by strong girls have been to find "protected space." Pipher (1994) reassured the girls, the schools, and their parents that most girls come out of the terrible time in early adolescence when these issues arise stronger, more independent, and more resilient. This protected space can be created by the student's interests, by books, by families, by churches, and by intentional or unintentional physical or social separation. This can be ameliorated by attendance at special summer institutes where experience has shown that the students find an immense relief that there are other people just like they are, and the joy of recognition takes place.

Talented boys also have issues that counseling could help. Among these are emotionality, bonding, mother-son relationships, father-son relationships, perfectionism, sexuality, the success trap, images in advertising,

competition and ego, and others (Alvino, 1991; Hébert, 2006). Alvino said, "The male ego, augmented by an excessive competition and striving characteristic among the gifted, can become a terrible beast of insatiable hunger" (p. 180). Kline and Short (1991) stated that talented high school boys "decide to shut the door on the emotional insecurity of their junior high experience and put a shield over their vulnerability, suppressing their potential for experiencing feelings and having rewarding relationships" (p. 187). Hébert (1991) summarized six issues with which talented boys must deal: (1) how to manage their images, (2) how to deal with the pressure they put upon themselves, (3) how to meet the expectations of their culture for how a "man" should act, (4) being different from other boys, (5) the need for finding and keeping male friends, and (6) gender role conflict. Hébert said, "Many talented young men cherish aspects of their personalities which may be considered non-masculine" (p. 209). This applies to young men in the arts, especially, who are often ridiculed for their interests.

Kerr and Cohn (2001), in their book *Smart Boys*, listed and described many issues surrounding the passage of gifted boys, suggesting that gifted boys be considered equally at risk as gifted girls, for many of the same reasons having to do with their dispositions, interests, and personalities, which may not be the same as those of all the rest of the boys.

Gender Differences in Socialization

Girls are often concerned with social goals more than power and achievement goals (Brown & Gilligan, 1992; Higham & Navarre, 1984; Piirto, 1991b). They may be more concerned with social relationships than individual achievement and status. Likewise, they are more interested in people than in things. Gender differences in activity interests, personal interests, and range of interests have surfaced among talented children and youth. Role models are extremely important, especially in the home. For example, who helps with math homework is crucial. Usually it is the father, and this gives the message that men know more than women about math (Navarre, 1979). Who interprets the child's experience? Usually it is the mother. Researchers (Eccles, 1985b; Higham & Navarre; Kerr, 1985, 1991) also found that the reinforcers for boys and girls are different, and so were the providers of experience; games and toys and special educational experiences were more likely to be provided for boys.

Parents want their daughters to be "happy" and their boys to be achievers in the professions. Mothers are often likely to tell their daughters, "I wasn't any good at mathematics either," and their sons, "Well, you have the math ability; you just didn't work hard enough." When a child hears these messages, the messages have bearing on how difficult courses are perceived. The child's self-concept about ability to do work in hard courses is affected by these messages. The boys think, "Oh, if I work harder, I'll get an

A in calculus." The girls think, "I worked so hard in trigonometry and I only got a C. Why should I take calculus and ruin my grade point average?" As a result, the course-taking behavior suffers, and thus the final achievement in measures such as the National Merit Scholarship Program mentioned previously also suffer.

Female Underachievement

There are also gender differences in underachievement. Colangelo (1990) reported that a large-scale study of underachieving students who had scored above 28 on the ACT and who had grade point averages below 2.0 showed that the majority were White, middle-class or upper middle-class males. Of females who had scored 28 and who had grade point averages that would indicate underachievement, the grade point averages were between 2.0 and 3.0—that is, the females kept their GPA's within respectable limits while the boys seemed to be openly rebellious, didn't hand in papers, didn't do homework, and didn't study for tests while still retaining the information required to score so high on the ACT.

Females underachieve in different ways than males. A 1990 follow-up study by George and Caroline Vaillant of 40 Terman females (mean age 77 years) found that their underachievement came after high school when they married and had children. The most creative and productive had the least numbers of children: Of the 30 women who were occupationally the most achieving, only 5 had become mothers, and the whole group had only 7 children. The Vaillants said, "For these women, successful career and childrearing were negatively correlated" (p. 611). Studies like this led me to the conclusion that academically talented girls are lost to underachievement during and after *college* when their need for intimacy and connection overpowers their need for achievement (Piirto, 1991a, 1992c). Their high school achievement may be just fine, but when the instinct for love and connection hits, often in college, underachievement may be the result.

Researchers (Benbow, 1992; Subotnik & Arnold, 1996) have begun to research this perplexing problem. Why do females who have achieved high grades in high school and who have entered college as math/science majors (this is particularly the case with these females) drop out of math/science majors, switch to other majors, and sometimes even drop out of the achievement stream (e.g., not go to graduate school, not pursue the Ph.D.)? Some tentative answers were forthcoming in Benbow's 1992 paper. The math/science females were often identified with their fathers: "Perhaps most interesting was that the career choices of these exceptional females often corresponded to their father's career field" (Benbow, p. 115). Arnold (1993) suggested that the young women do not absorb the tacit knowledge, the practical knowledge that is necessary for building a career; they do not understand or cannot break into the informal networks of connections and

acquaintances, of mentors and mentees, that are necessary in building any career.

Still, most students who are targeted in school for special intervention for underachievement are boys, just as most students who are in special education programs are boys. Girls often achieve well enough not to be noticed as underachievers; their underachievement comes in course selection and in getting the gentlewoman's low B instead of the rebellious gentleman's low C.

The Importance of Tacit Knowledge

How does a talented male or female student proceed in a career? Taking the courses is not enough. Tacit knowledge is necessary (Sternberg, 1985). What does one do besides take courses and get good grades, in order to position oneself for success in a career? Tacit knowledge is cognizance of what one must do in order to proceed. Based on Polanyi's (1966) work, *The Tacit Dimension*, Tschannen-Moran and Nestor-Baker (2004) said,

> Personal knowledge [is] so thoroughly grounded in experience that it cannot be fully expressed. Tacit knowledge is procedural in nature, relevant to goal attainment, and frequently acquired with minimal help from others. Tacit knowledge allows a person to know when to adapt to the environment, when to shape the environment, and when to select a new one. (p. 1485)

This knowledge is often imparted casually, if at all, during a student's life. Sometimes this knowledge is conveyed over what comes to be called "the old boys' network," at the golf course or in the private men's club or fraternity, and the talented female might not know what she should do to attain this knowledge. In her study of Illinois valedictorians, Arnold (1993) said,

> A major reason many women find it difficult to develop the base of untaught practical knowledge for envisioning, planning, and implementing high level careers is a lack of support, mentorship, and significant interaction with faculty. The most successful women in the valedictorian study were unusual in receiving special opportunities and attention from faculty. Most of the study women did not become close to any faculty person. (p. 25)

Group and individual counseling, and the enlisting of faculty mentors for talented young women is especially important in late high school and the in late college years.

Academically Talented Girls and Teen Pregnancy

While many think that academically talented or other talented teenage and young adult girls are virginal and pure, studying hard and achieving, the truth is more mundane. Academically talented young women are just as interested in the opposite sex as are most other young women. This leaves them as vulnerable as all young women to the gender issue of teen pregnancy. Sex education is a vital component of any guidance program for academically talented youth. Of course, the very title of this section is sexist; that is, isn't an unwanted pregnancy the responsibility of the father, as well, whether or not he is gifted and talented?

Very High IQ

Not only is Stephanie Tolan a Newbery-Award-winning author for her book about creative gifted adolescents, *Surviving the Applewhites* (2002), she is also an expert on high-IQ students. Tolan (1992b) noted that parents and theorists/researchers often have conflicting views. Parents of children with high IQs notice more. They notice the pain and the emotion with which the high-IQ child must cope when true intellectual peers are few and understanding is far away. Hollingworth (1926, 1942) noted that students with high IQs have more difficulty in social adjustment than students with less extreme IQs. Tolan (1992b) said their extreme precociousness does not smooth out. Parents "see the extremely negative effects of the failure to meet their intense intellectual needs" (p. 14). Tolan said that these children have been called statistically insignificant; that is, their occurrence is too rare for schools and institutions to consider serving them. Tolan said, "Our children are suffering intellectual malnourishment. It is not as obvious as starvation but it is just as real" (p. 18). Gross (1993, 1998, 2002) agreed. In her detailed descriptions of the characteristics of high-IQ students in Australia, she asserted that even though they are few in number, they have a great impact on our society.

In Tolan's (1992b) view, this intellectual malnourishment causes the social and emotional difficulties of many high-IQ students. For example, many have been called hyperactive, needing little sleep when not academically challenged during the day. Tolan said that when her own high-IQ son was experiencing an appropriate and challenging education, he would be very tired; the mental activity was necessary for sleep, and if he had not been mentally challenged during the day, he would seek mental challenge all night long, before being able to sleep. "Working the brain is just as, or more tiring than, working the body," she said (p. 14). In trying to provide for academically talented students' needs, counselors should not overlook the intellectual needs of high-IQ students. These students, like handicapped students, didn't ask to be born this way. Morelock and Feldman (1991) said: "It may be, how-

ever, that the higher the IQ, the more the benefits are counterbalanced by social adjustment problems imposed by such capacity" (p. 350).

Introversion

Introversion is defined as the tendency to direct one's thoughts and interests inward. On the Myers-Briggs Type Indicator (MBTI), the opposite pole of Introversion is Extraversion, or the tendency to direct and receive strength from the outside world. Only 25% of all people prefer Introversion, but most academically talented students prefer it (Myers & McCaulley, 1985; Piirto & Johnson, 2004). Silverman (1993) pointed out that the introverts may not be popular during their school years, but that they often "gain prestigious positions at universities and research institutes, they are valued for their knowledge and skills, and they have excellent opportunities to rise to positions of leadership through scholarly efforts and creative contributions to their fields" (p. 25). Silverman later (2003a) pointed out that they are higher achievers in college, perhaps because they don't focus so much on their social lives. In midlife, those who prefer Introversion have an advantage in the "long, hard journey to the Soul," said Silverman (2003a, p. 216), because they are used to introspection, retreat, and self-examination.

Being an introvert in an extraverted world is often painful. Introversion is thought to be genetic, much like the temperaments of being Inhibited/Uninhibited (Kagan, 1995). Sometimes painfully shy, other times willfully arrogant, introverted and talented students may not respond well to counseling. Long pauses may be a feature of counseling sessions. Myers and McCaulley (1985) said, "Introverts are more likely to look to themselves first for causes of difficulties. They are more intrapunitive than extrapunitive. The counselor may need to focus their attention on the fact that some problems have their source in the environment" (p. 68).

The counselor may also want to quote Simonton (1994):

> The gregarious who fritter their time away at cocktail parties, social outings, and family get-togethers are less likely to leave enduring impressions on posterity. At death their mouths are silenced forever, while the voices of deceased introverts speak on. (p. 269)

Intuition

Intuition is a way of knowing without using rational processes: "you just know, man," as one of my students said. Intuition involves insight, quick cognition, and the ability to penetrate to the truth of a situation. Again, many, if not most, academically and creatively talented students prefer intuition as a way of seeing the world. Why is having a personality preference of intuition

a concern for counseling? Intuitive students may present the problem of not relating to their sensing (S) teachers, as most teachers prefer Sensing (Piirto 1998a; Piirto, Gantz, et al., 1997; Piirto & Johnson, 2004). Most teachers prefer Extraversion, Sensing, Feeling, Judging (ESFJ). Only about 8% of elementary teachers are NT personality types, the personality types that many academically talented students prefer. Counselors should not be afraid to use metaphor and symbolic discourse with N students, as they respond to such abstractions. As Intuitive students are often quite independent in thinking, helping them to find their own solutions instead of dictating to them works better (Piirto, 2004). Also, Intuitive students often need help in getting organized, as they often underestimate the time it takes to get a task done (e.g., an assignment due, a college application in).

Meeting the Expectations of Others

Because academically talented students are often as "good" as they are mythologized to be; that is, they perceive the expectations their teachers and parents have, and they strive conscientiously to meet them, they are often vulnerable to their empathy. Alice Miller's book, *The Drama of the Gifted Child*, about the narcissism of the middle-class parent who lives out his or her own dreams and wishes through his or her child, has hit a worldwide chord so much so that it has been reprinted eight times and in 21 languages since its appearance in 1982. The experience of having been victimized by parental narcissism often calcifies the talented child. Counseling may not be enough; therapy might be necessary.

Many family systems operate on what has been called a dysfunctional level, and these interactions, too, have enhanced talent development. Alice Miller (1990, 1997a) theorized that creative adults became creative from family environments of trauma where warmth was present. The trauma may include what Simonton (1984, 1988) called "the orphanhood effect," where a parent may die or be absent. Other traumas that tear apart the traditionally intact family system are divorce; illness; frequent moving; physical, verbal, and sexual abuse; and the like. Talented youth who become scientists, mathematicians, and classical musicians seem to have come from families that were more stable than the families of actors, writers, popular musicians, visual artists, and dancers—people in the arts (Piirto, 1992a, 1992b, 1992c, 1994a, 1994b, 2004). Perhaps the long schooling necessary for functioning as an adult scientist, mathematician, or musician is a result of a family striving together to develop the potential of a talented child. The fact that many talented adults came from family situations that were less than ideal illustrates that even the most laissez-faire parenting (or absence thereof) has an impact on talent development.

Two interesting phenomena are operant. One is the "stage mother" or "Little League father" situation, in which the parent is obsessed, even to the point of destructive narcissism, with the development of a child's talent, whether or not the child wants to have his or her talent developed. Tofler and DiGeronimo (2001) called it the "Achievement-by-Proxy Distortion Syndrome (APDS)," where parents exploit their children's talent for personal reasons. Is the parent an autocratic controller, needy, financially hungry, an overly competitive superachiever, a frustrated coulda'-been champion, or a rationalizer? The parent probably suffers from APDS (Piirto, 2001). The other is the "I don't care what you do just so long as you're happy" situation, where busy parents do what is necessary for safety and health, but little beyond that. Both situations can produce talented adults. Judy Garland is an example of the former; her mother was so obsessed with Judy's career as a child actress that she even permitted the use of amphetamines and tranquilizers so that Judy could work longer hours in the studio. An example of the latter is the mother of the actor and comedian Steve Allen, who permitted him to move, alone, from Chicago to the southwest at the age of 16 in order to take a job as a radio announcer.

Other parents move with their children to pursue the talent (Farrell, 1990; Feldman & Piirto 1995, 2002; Piirto, 2004; Vail, 1994). The mother of the dancer Suzanne Farrell moved Suzanne and her two sisters from Cincinnati to New York City at the offer of an audition with Balanchine, and they lived in one room there while their mother was a private nurse. The mother of Academy Award winner Hilary Swank moved from Oregon to Los Angeles to support young Hilary in her acting dream.

Talented students may also be torn because of the pressure of certain teachers. Often, music, theater, and athletic coaches develop strong relationships with their talented students, and may be in danger of overwhelming them in the desire to develop their talents. Perhaps the coaches and teachers see their young selves in these students. Some teachers have even physically and sexually abused their students. Tofler and DiGeronimo (2001) described how Canadian hockey players were abused by a coach. They commented on the autocratic style of gymnastics coach Bela Karolyi, and the risks to talented youngsters of being placed with older players or having coaches who use the Bobby Knight style of physical abuse, and the flocking of parents to place their children with certain coaches known as "star makers." They quoted a physics student who said, "I remember going to my tutor with my knees shaking. I was so afraid of his temper tantrums, and I couldn't stand being called 'stupid' and 'lazy' every time I made a mistake" (p. 96). The phenomenon of the teacher who overidentifies with the students is explored artistically in the films *Madame Sousatzka* (1988) and *Mr. Holland's Opus* (1995).

Motivation

Problems of motivation are many. Too much, too little, too outer, too inner are all motivational concerns. Can a student have too much motivation? When health suffers, yes. When relationships with key people in one's life suffer, yes. Too little motivation also needs examining in terms of underachievement. If a student is motivated by external forces only (extrinsic motivation), motivation is said to die when the external forces are removed, though behaviorist theory often advocates using external rewards to motivate students to complete tasks. Internal motivation (intrinsic motivation) is said to be the most useful for achievement; that is, if a student can transfer the external to the internal, he or she is likely to stay on the task.

Motivation theory was simplistic once, but now it is complicated. We also have to take into account the presence of learned helplessness, where students may not produce without dependence on others, and the presence of internal and external locus of control (see Chapter 12 for a discussion of locus of control in talented minority children in San Diego). Many of the personality attributes in the base of the Piirto Pyramid of Talent Development have relationship to motivation: discipline, persistence, and the like. One is said to go into a state of "flow" while creating and this state is itself motivating; that is, one wants to come back to it again and again (Csikszentmihalyi, 1991).

Two Greek terms have surfaced in this discussion. Lovecky's (1993) use of the complicated word *entelechy* and Hillman's (1996) use of the word *daimon* also speak to the construct of motivation and the talented. Lovecky contends that the talented individual possesses entelechy; that is, "a vital force urging an individual toward engagement" (p. 33). Hillman offers that the person is motivated by the daimon, which is the tiny acorn of talent born in seed that has the potential to grow into a mighty oak of talent realized. All these should be the focus of some understanding of motivation on the parts of those who counsel the talented. Gottfried et al. (2005) have now proposed that motivation is a form of giftedness.

Overexcitabilities: The Dabrowski Theory and Emotional Intensity

A particularly useful theory for understanding how gifted and talented youth cope with what their lives bring along is the Dabrowski theory of emotional development. Dabrowski (1964, 1967, 1972; Dabrowski & Piechowski, 1977), according to his major translator, Michael Piechowski (1975, 1979, 1989, 1991, 1992, 1997a, 2003, 2006), did not view the intellectually and artistically gifted as maladjusted; rather he saw their intensities in their areas of talent as a higher form of adjustment on a continuum of

levels of adjustment. "To varying degrees, these five dimensions give talent its power," said Piechowski (1997a, p. 366).

There are five types of primary intensities, or as they are called in the Dabrowski theory, overexcitabilities. Piechowski (1991, p. 287) described them this way:

- *Psychomotor overexcitability.* An augmented capacity for being active and energetic—expressed as movement, restlessness, drivenness.
- *Sensual overexcitability.* An enhanced differentiation and aliveness of sensual experience.
- *Intellectual overexcitability.* Avidity for knowledge and the search for truth—expressed as discovery, questioning, and love of ideas and theoretical analysis.
- *Imaginational overexcitability.* The power of thought creation—expressed through vividness of imagery, richness of association, liking for the unusual, and a facility for dreams, fantasies, and inventions.
- *Emotional overexcitability.* The heart—recognized in the great depth and intensity of emotional life expressed through a wide range of feelings, attachments, compassion, heightened sense of responsibility, and scrupulous self-examination.

These intensities, called *overexcitabilities,* provoke both relief and recognition from gifted people and the parents of gifted children who learn about the theory. "I'm not weird, after all" or "I'm not crazy after all" is a common reaction. Piechowski (1991) said that the "stronger these overexcitabilities are, the less welcome they are among peers and teachers (unless they, too, are gifted)" (p. 287). Children who experience life with such intensity are often made to feel weird, strange, different, and embarrassed. They often learn to squelch their reactions before they are squelched by their peers, their teachers, and sometimes even their parents. Their abilities for feeling and for expression thus are quenched, as flames drowned by water or snuffers.

Examples of overexcitabilities present in gifted people often surface when people respond to life. An intellectually gifted teenage boy who wants to be a writer, and who is an avid reader, often reads novels in taking breaks from his homework. When he does his homework, which is often boring, he will "zip back and forth" between the books he is reading for pleasure and his homework. When he is writing a story, he will go out to the woods and imagine that he is the character he is writing about (Piirto, 1990b). Another boy, a precocious writer (Edmunds & Edmunds, 2005) demonstrated his sensitivity early by being very upset at scary stories; leaving the room when violence was on television; precognitively predicting the death

of his grandfather; delighting in nature walks, sports, and words; and being overjoyed during holidays and depressed when the holidays are over. His mother said, "tears are probably more frequent than in other kids, not tantrums or manipulative tears but genuine sadness at things that probably do not upset most other children. He frequently says that he just cannot help it" (Edmunds & Edmunds, p. 75).

Such intense reactions to the world are often uncovered by the use of the Overexcitability Questionnaire (Piechowski & Cunningham, 1985). In one study of adolescents who attended a summer institute, examples of the various types of overexcitabilities showed through the use of the Overexcitability Questionnaire (OEQs; Piirto, 1992b). Questions such as "Are you poetically inclined?"; "What kinds of things get your mind going?"; "Do you ever think about your own thinking?"; and "Does tasting something mean anything to you?" are examples. A qualitative analysis of 100 questionnaires written in 1989, 1991, and 1995 showed at least five themes in the emotional life of these talented adolescents: hypersensitivity, God, life in other forms, performing, and challenging self and others (Flint et al., 1997). The hypersensitivity was described as "hyperness" by one of the students: "My heartbeat increases, even if I am only intellectually excited. I get very talkative and I gesture a lot."

A response to and a belief in life in other forms is animistic thinking, common to imaginational overexcitability. One student said, "I think everything on the earth is made of energy, and energy is a living thing. Not only nature but thoughts and feelings too." In response to one of the questions about whether or not other things have a life of their own, another student said, "Yes! Yes! Yes! Yes! Yes! I'm always watching out for things. Sometimes I talk to them so they know I care. I know what they're like and how they live."

The love of performing came out in this population, as one of the classes was musical theater. One student said:

> When I am on stage I feel as if I'm soaring on a cloud with the angels singing beside me. Performing is absolutely my first love. The magic of the theater always seeps into my soul and grasps control of it. When I am acting, I am as happy, or happier, as any person can be.

One young athlete wrote of the joy of competition:

> When the competition is high and I know I can take over the whole scene I use the energy to excel and raise my play up a notch. It is a feeling of freedom and an incredible high. It is a true freedom that unfortunately not everyone can feel. It is to be a winner.

In another theme in this study, the students seemed to thrive on challenge. One student wrote:

> I love to argue. It is almost the only thing that keeps me going in school, challenging my teachers or fellow students. I argue with myself about moral issues, social issues, how I should handle situations, etc. The only problem is that I can often find equally good arguments for both sides. I mentally plan out arguments with other people all the time. Usually the purpose of these arguments is not to prove that I am right or the other person is wrong, but to effectively present another side to think about. I become infuriated easily by people who will not accept anything other than their own ideas or who judge people by whether they have the "right" or the "wrong" answer.

Piechowski's concept of emotional giftedness is similar to what Gardner calls interpersonal and intrapersonal intelligence, but Piechowski noted that Gardner did not delineate the developmental process: "By what developmental process is the mature self realized? What has to take place in a person's development to make gaining advanced self-knowledge and wisdom possible?" (Piechowski, 1997a, p. 370). Few have even called emotional intensity an aspect of giftedness, but such high psychosocial talent is surely among the most valuable of talents. Piechowski (1998) posited the existence of spiritual giftedness, "inner potentials for profound empathy, spiritual awareness, transcendence of emotionally annihilating childhoods, and experience of non-ordinary realities." He is at work on a book explicating emotional giftedness and spiritual intelligence. It contains many vivid quotes from teenagers who took the Overexcitability Questionnaire such as those above (Piechowski, 2005). Reynolds and Piirto (2005) cautioned about the use of the Dabrowski theory with its hierarchy of levels as being "reductive when used to explain instead of to understand" (p. 165).

Peer Relations

Students who are talented often have difficulty in peer relationships; so do most other students. At a young age, the difficulty may be in finding someone to talk with; students are often amazed at young ages that the other students don't know as much as they. That difficulty may continue through adolescence and into adulthood, but again, it is not known whether this is a function of intelligence or of human nature. Certainly the higher the IQ, the more difficult it is to find intellectual peers. But, recent forays into the world of emotional intelligence (Goleman, 1995) have indicated that the ability to relate to people often takes skills that can be acquired through

practice. Contention and difficulty in relationships is not only a function of intelligence or creativity. Several different peer groups may be necessary for such children, just as they are often necessary for adults. Swiatek (2001) found that social coping among gifted youth leads girls to deny that they are gifted and boys to use humor.

Perfectionism and the Talented

A related counseling issue for both the academically talented student and the student with talent in music, dance, or other domains is their perfectionism. Perfectionism as a psychological difficulty is the presence of a compulsive need to achieve and to be the best in work. Byproducts of perfectionism can be eating difficulties; paralysis that causes the academically talented student to not even try, if not being assured of being rated the best; and timidity. This is called *disabling perfectionism*. This is also called *clinical perfectionism*, and is associated with mood disorder, panic disorder, social phobia, loss of hope, and failure-avoidance.

However, a perfectionist spirit can guide true excellence, as well, as the person pays attention to details and to quality in products. The writer will revise his work over and over again, honing and shaping it until each word and its placement is "perfect." This is a seeking for excellence, *enabling perfectionism*. The short story writer Raymond Carver (1983) said he gleefully awaited each successive draft of his stories from his typist as he revised and revised until the works were as finished as he could make them. Another example is that of the musician who practices the same piece over and over again, paying attention to all the effects, to the dynamics, to the relative weights of eighth and sixteenth notes, in order to prepare a piece for performance. Still another example of enabling perfectionism that leads to excellence in quality is the theater director who rehearses the cast and the play those extra times after the book is put away, shaping and polishing the performance for innuendo of gesture and line.

Hewett and Flett (1991) spoke of socially prescribed perfectionism and self-oriented perfectionism. Using this construct, Speirs Neumeister (2004) interviewed college honors students about what their perfectionism looked like. *Socially prescribed perfectionism* had roots in parental authoritarianism and parental perfectionism. An emphasis on obedience, the presence of physical punishment when household rules were broken, and "stringent expectations" for high academic achievement (p. 254) were factors. *Self-oriented perfectionism* was internally caused. Students felt that they had to challenge themselves, as the school often did not challenge them. Their parents had authoritative parenting styles, were supportive, and did not expect them to be perfect, but the parents themselves modeled perfectionism, and the honors students imitated their parents.

But, perfectionism can also be disabling. A common example of this is the "all but dissertation" (A.B.D.) Ph.D. candidate who spends years on the dissertation, finding more and more references and resources, who is ultimately unable to finish the work, to put it down on paper and complete the degree. The sense of perfectionism that leads to paralysis, to fear, to not even trying because one won't meet one's own standards is easy to fall into. Academically talented students often set unrealistically high standards for themselves and are unable to forgive themselves if they don't meet those standards. Their self-esteem, while it may seem high, is hooked on accomplishments, the end results, and not on the process of doing the work itself.

This has often been called *external locus of control*, or *extrinsic motivation*, and when perfectionism is disabling, the person is often found to depend on what others say about the work for the pleasure derived from doing the work. How many 4.0 averages, how many gold stars, how many all-A's, how many monetary rewards, how many articles in the hometown paper can the honor student accrue? This becomes the goal and not the byproduct of achieving the goal—the finely honed short story, the wonderfully played piece of music, the ensemble theater production that reaches the sublime.

Miriam Adderholdt (1999; Adderholdt-Elliot, 1991) has written extensively about perfectionism. In 1991, she wrote that talented adolescents are often at risk for disabling perfectionism because of their strong self-monitoring. She cited seven reasons for perfectionism that may turn out to have negative consequences. These were as follows: (1) birth order (firstborn and only children seem to become more perfectionistic because they learned early to measure their accomplishments against the accomplishments of adults); (2) perfectionistic parents; (3) media influence (watching perfect people on television who solve their problems in less than 30 minutes); (4) pressure from teachers and peers (when perfectionists are brought together, being perfect becomes normal); (5) developmental dysplasia (having disparate mental ages and chronological ages forces undue pressure on children too socially and emotionally young to realize this pressure is unnecessary); (6) "hothousing" or "hurrying" children (in Elkind's [1981] terms), which places children at risk for self-doubt and stress; and (7) dysfunctional families (not having control over one's home life leads to an attempt to control one's school and work life).

Adderholdt also described how perfectionists think. They often experience mood swings; for example, if a child tries out for a play, and her self-esteem is tied to attaining the lead but she "only" gets the second lead, she will feel deflated and disappointed, instead of being happy that she got an important part. One B+ on an all-A report card can also produce a black moods, as can one negative work evaluation among many positive ones.

Perfectionists often rely on quantity to achieve a feeling of accomplishment. Ten awards is better than one award; Who's Who Among High School Students, National Merit Scholar, president of the student council, president of the band, *and* president of the sorority is better than being just one of these and doing the job well.

Because of this valuing of extrinsic reward, perfectionists are often motivated by "all or nothing" thinking, which is that they believe that there is either success or there is failure, and there is nothing in between. There is no such thing as a little bit of success or a little bit of failure. A person is either a complete success or a complete failure (Adderholdt & Goldberg, 1999). This mammoth gap often causes perfectionists to procrastinate. Because they might fail, and there is no such thing as a little bit of failure, perfectionists put off even trying. Then when they do the project at the last minute, they excuse the quality of the project, saying that if they had had more time, they would have done a better job. Nugent (2000) suggested several strategies within the classroom that can help perfectionists not be so hard on themselves. These were bibliotherapy, group therapeutic discussion, and art activities.

What are the consequences of perfectionism, and how can an educator or counselor help the perfectionist whose perfectionism has turned negative? Delisle (1982) warned that perfectionism may be a cause of teenage suicide. When a young academically talented person reaches the point of despair of never being good enough, of never reaching his own standards for himself, he may decide to end it all. Another consequence may be eating disorders. These are common in talented youth who are interested in fields where their looks matter, such as dance, entertainment, and athletics. In order to attain the ideal of the "perfect" body, the youth may abuse that body by refusing to eat, by bulimic behavior, or by using steroids. Obsessive-compulsive behavior disorders may also be caused by perfectionism. Constant hand washing, housecleaning, and mess straightening are examples. Of course, underachievement, which will be discussed in detail later in this chapter, is often related to perfectionism.

What can the educator or counselor do to help the child who is overly concerned about perfection? Adderholdt-Elliott (1987; Adderholdt & Goldberg, 1999) suggested relaxation therapy, reality therapy, group counseling, self-talk, and the use of mental imagery. Rimm (1986) suggested that placing students in situations where they can successfully fail—for example, the second lead in the play, the second chair in the band, the second place in the academic challenge contest—is good for them. When a child sees that people still regard her as successful even though she hasn't won everything, and when she sees this over time, from very early on, the chances of her being constantly so hard on herself will lessen. She will be able to see

that she's better in some things than in others, and that what matters is the process of doing the activity, and not being tops in everything.

Again, the confusion between perfectionism and excellence should be pointed out; paying attention to the quality of one's work and seeking to produce the best quality is excellence. Letting go of the job, and putting it into the hands of the audience, the judge, the teacher, or the critic is healthy. Paying attention to the quality of one's work and being paralyzed in doing it because it just may not be good enough, and then putting it together at the last minute so that one will have an excuse if the work is judged lacking is not healthy.

Overachievement

The inclusion of this as a counseling issue is just to ask the question: What is overachievement? How can a person achieve more than they can achieve? I think the roots of this as a presented counseling issue in the literature of talent development have to do with the anti-intellectualism of our culture. The attention to mediocrity, to fitting in, to getting by, to not rocking the boat—all feed into the concept of overachievement. The talented student is called an overachiever. That means that he or she should let up a little, should fit in a little, should not have such high standards for him- or herself, should realize that others feel inferior when they see her work and what she has accomplished. If a person can write 10 books and his graduate student friend writes one, who is the overachiever? The high achiever "raises the curve." Of course, concomitant problems follow: ostracism, jealousy, and shunning; becoming a "teacher's pet"; and the like. This appears to be a term with a relative meaning; what is overachievement to one peer group may not be to another. And, this also seems to be a situation that concerns athletic, minority, and rural poor children more than others.

Resilience and Its Relationship to Achievement

Resiliency is being able to adapt and to bounce back with elasticity when the world provides great threat. Resiliency has been studied at the University of Minnesota in Project Competence since the early 1960s by Garmezy and his colleagues (Garmezy & Tellegen, 1984). In the Minnesota studies, they found that more resilient youth had higher IQs and their parents were able to bounce back also (Masten et al., 1999). Those who were resilient were able to communicate their wants and needs, they were able to suppress their impulsivity, they were able to think and reflect about the meaning of their experiences, and they believed they could have some control over their surroundings. Jenkins-Friedman and Tollefson (1992)

constructed a model of resiliency that may explain why some students continue to achieve and some do not. Among disadvantaged children, there continue to be certain children who achieve despite having two strikes against them (e.g., lack of support from home or lack of support in school). These children often have remarkable self-esteem. No matter how far they are down, they seem to have nonintellective characteristics that help them rise to the challenge and to achieve. These are "a mastery orientation, a strong sense of self-efficacy and of optimism, a sense of empowerment, and an attribution orientation characterized by internal, unstable, controllable and intentional explanations for outcomes" (Jenkins-Friedman & Tollefson, p. 326). These resilient children often have strong maternal influence; their mothers were more optimistic than pessimistic, and the children followed suit. Their mothers also worked. These resilient children also had beliefs in themselves that they could prevail, despite the social system or the school environment. Bandura (1986) called this a sense of self-efficacy.

Resilient children also attributed their successes to ability rather than luck, and thus they would try again and again, because they knew they had the ability, and they did not attribute their failure to succeed to external circumstances such as bad luck. Resilient children, in other words, did not show learned helplessness, the "poor me" syndrome therapists make people punch pillows about, the dependency fostered by many educational practices. The remarkable triumphs in fields such as the arts and athletics of poor children shows that resiliency is a major factor in the realization of gifted potential when the rest of the world looks away. The counselor and teacher can be major factors in the realization of this potential.

A study of childhood trauma by Terr (1990) of the children whose bus was kidnapped in Chowchilla, CA, in 1976 showed that repeated exposure to trauma, both real and vicarious, induces a "toughening process" in children (p. 318). Corwin (2000) in his moving journalistic tour de force, *And Still We Rise*, documented the lives of 12 gifted and talented Los Angeles poor minority high schoolers in their Advanced Placement classes and in their lives. I assign this book to all my classes, as it is a classic tale of resilience. Reis, Colbert, and Hébert (2005) listed risk factors and protective factors for resiliency and for underachievement. Among the risk factors were family members who abused drugs or alcohol, few teachers who acted as either role models or a support system, and nonparticipation in extracurricular activities. Factors that helped resilience were the involvement of parents, teachers, or counselors who helped, and attending summer opportunities. Protective factors were a religious household, not dating, participating in extracurricular activities, and peers who were academic achievers.

Resilience in women was discussed by Noble (1996). She said that women must not only cultivate the personality attributes necessary for

resiliency, they must form a community among themselves and nurture each other as they have always nurtured men.

Resilience in minority youth was discussed by Ford (1996) and Hébert (1996). Ford pointed out that the resilient Black student has "an inner locus of control, a positive sense of self, and feelings of empowerment." They are often bicultural and may "don a facade of racelessness and believe in the American dream" (p. 82). Hébert noted the positive personalities of resilient youth in his study of three Latino teenagers. He also pointed to the inner locus of control and the intrinsic motivation that seems key. The self-image of these youth permits them to see themselves as winners and as successes due to their own efforts and their own choices. The presence of a family that encourages and supports, as well as the presence of mentors and other community people who are encouraging, is also important. They are often involved in extracurricular activities and in athletics. In these activities they formed a group of peers who had the same goals with whom they could bond.

Self-Concept/Self-Esteem

There are several common counseling issues that are addressed with academically talented students; among them is the issue of self-concept. Self-concept is often used interchangeably with other terms such as *self-esteem*, *efficacy*, *instrumentality*, and *competence*. In fact, psychologists have separated self-concept into several types: People have physical self-concepts, academic self-concepts, and social self-concepts. Researching self-concept is very popular among scholars of gifted education. They give various tests to people and derive self-concept data.

Academically talented students generally have high academic self-concepts and lower social self-concepts and physical self-concepts (Brounstein, Holahan, & Dreyden, 1991; McCoach & Siegle, 2003). Some gender differences exist, though. Bright elementary-aged girls in the U.S. have lower academic self-concepts in mathematics than do bright boys (Olszewski-Kubilius & Turner, 2002), and New Zealand girls do also (Luscombe & Riley, 2001). However, in China, academic self-concept did not differ between genders among gifted adolescents in a special school (Dai, 2001).

Athletes generally have high physical self-concepts and lower academic self-concepts. Student leaders generally have high social self-concepts and lower academic and physical self-concepts. Janos, Fung, and Robinson (1985) found that academically talented students who had problems in adjustment often had lower social self-concepts. Cornell (1990) found that academically talented students who were unpopular also had lower social self-concepts.

Janos et al. (1985) noted that while most academically talented youth experience no self-concept difficulties, a minority of academically talented youth do. This is particularly evident in those who have very high IQs, within the third and fourth standard deviation above the mean. These children constantly experience their difference from others, even from other people called academically talented.

An interesting type of self-concept is moral self-concept. In a study of the essays of 119 Presidential Scholars asking them about their ideal self, Lamont et al. (2000) found that the ideal self included a view of themselves as moral. These students, "the brightest of the bright," as the authors titled their essay, viewed morality from the American Dream point of view; that is, they wanted individual morality, morality "on the basis of: (1) self-actualization, hard work, and well-roundedness, (2) authenticity, and (3) interpersonal morality" (p. 197). The moral person seeks to develop the self but to follow the golden rule, "to strive constantly and diligently to make oneself better, and to demonstrate a strong, efficient, active, and confident self" (p. 198).

Self-Esteem and the Academically Talented

The trendy programs for enhancing self-esteem that are rife in the schools are pervasive reminders of the "me" 1980s and the "feel-good" 1970s, and students who have been identified as academically talented are also subject to concerns about their self-esteem. Critics of such programs argue that true self-esteem comes from accomplishing something difficult, and point out research that shows that students in the United States have the highest self-esteem and lowest actual achievement, that is, they feel very good about their achievement even though they do not score very well on comparative measures administered across cultures. U.S. students have higher self-esteem than students in Japan, Taiwan, and China, even though their actual performance was much lower.

An article (Jayson, 2005) quoted Deborah Stipek, the dean of education at Stanford University. "I often get students in graduate school doing doctorates who made straight A's all their lives, and the first time they get tough feedback, the kind you need to develop skills, they break down." Baumeister and colleagues (2003) reviewed 18,000 studies of self-esteem and concluded that high self-esteem has two benefits: "enhanced initiative and pleasant feelings" (p. 1). However, no evidence exists that high self-esteem leads to better outcomes. Rather, the danger of excess narcissism is real. "Indiscriminate praise might promote narcissism," they said (p. 1). Academically talented students are just as vulnerable as other students to easy praise that accords false self-esteem for fake accomplishments. Ego-involvement seems to lower one's self-esteem. For example, Australian high school students whose self-esteem was tied to their task-involvement retained higher academic self-esteem than students whose self-esteem was

related to their ego-involvement, according to a study conducted by Gross (1998).

Elementary school experiences have great impact on self-esteem (Hamachek, 1990). That is because elementary students' self-esteem is "incomplete and impressionable" (p. 313), and they are vulnerable, with defenses that are not mature. Developmentally, elementary school children are in Erikson's industry versus inferiority stage, and students who do not receive recognition and praise are often stymied in making later achievement attempts. Thus elementary school children should not be made to bear untoward criticism and scorn; this is as true for academically talented students as for all students. Academically talented students may gain their self-esteem, though, from all A's and many smiley faces when the work is not challenging enough for them. Then, in the middle grades and in high school, their pictures of themselves are changed and many may succumb to underachievement rather than try hard and receive "only" a B. Students may rather hear that they have the ability and if they would only do the work, they could succeed, than hear that they haven't succeeded, even though they worked very hard. Nevertheless, self-esteem is a part of self-concept that is essential.

Stress

Stress occurs when one feels pressure, strain, and tension in one's life. Special situations for the talented have to do with overcommitment; that is, taking on too many activities, courses, and projects. Another reason is trying to please too many people and seeking external praise. Perfectionism causes stress as does meeting the expectations of others, discussed above. Learning how to slow down, to manage stress, and to take care of one's body, as well as to eat well and to get rest are all ways to cope with stress. Planning and decision making both cause stress and relieve stress. Stress occurs in the interim before the plans and decisions are made, while the student is mulling over the choices in her head. Stress can be "managed," say the experts. The counselor should help in goal setting, in teaching relaxation and meditation, in reducing the number of commitments, and in helping students cope with high internal standards and the reality of reaching them. Students should be encouraged to think clearly about what their own preferences are, and be able to separate them from the needs for them that others have.

Sexual Identity

The counseling needs, or even presence, of young gays, lesbians, and bisexuals (GLB) has little attention in the literature on talented youth.

Finally, in 2002, Cohn include an article on this population's counseling needs in a edited book by Neihart et al. Peterson and Rischar (2000) pioneered in this area, with case studies of adolescents who were gay. However, that there are gay, lesbian, and bisexual talented people cannot be disputed. Gay men were the leaders of the fashion industry until that industry was decimated by AIDS in the late 1980s and early 1990s. The presence of GLB people in intellectual society is the stuff of many biographies and memoirs. A Web site (http://gayinfo.tripod.com) lists 500 famous gay and lesbian people who have publicly acknowledged their sexual identity.

Friedrichs (1997) conducted a study with about 30 gay lesbian and bisexual youths and Table 11.4 shows the issues they most frequently mentioned facing. A retrospective survey with adult GLB people also affirmed these issues.

These students are often highly sensitive and intense. It is important that the counselor or teacher indicate that the student would be safe in talking to or coming to the office. A display of a small Rainbow Coalition flag or books on the shelf indicate the counselor or teacher's awareness that the issue is out there. The use of nonoffensive language such as "my partner" instead of boyfriend or girlfriend and saying the term "gay/lesbian/bisexual" is a beginning. Forming a gay/straight alliance and letting the students do the networking is another suggestion. "Make your office and classroom a safe place," said Friedrichs (1997).

Peterson (1998) did a qualitative study that asked 14 GLB college students about their experiences. Ten major themes emerged:

1. They said being gay was a reality to be reckoned with (not to decide about), and that once they realized they were gay, it was not a fluke. By grade 11, most knew they were gay.
2. They felt a sense of inner isolation in spite of being social—as if they were the only ones; others were treated as outcasts.
3. They had a pervasive sense of differentness.
4. They had a lack of role models, a lack of the presence of gays in the curriculum, and a lack of validation.
5. They felt a sense of danger. One female said, "A group of boys made me their pet project. They almost had me cornered several times." A male said, "I became an easy target for passive and aggressive acts, all of which were anonymous."
6. Hypersensitivity was a reality, being both gifted and gay.
7. They had many behaviors to deflect and divert in order to be "OK."
8. They often became overinvolved in school and community activities as a result of their inner discovery. One said, "I was top of my class, hyper-involved in extracurriculars. In structured activities, I was safe."

Table 11.4

Ways Educators Can Deal With Needs of Gay, Lesbian, and Bisexual (GLB) Youths.

Need	Problem When Need Is Addressed	Ways Counselor or Teacher Can Deal With Problem
Sex 1. To discuss a variety of different sexual behavior patterns	Self-isolation when GLB student gives specific information about self	Answer frequently asked questions by GLB youth nationally, even if they're not asked by particular GLB youth at hand
Peer Relationships 2. For friends in two or more of these categories: women, gay men, lesbians, bisexuals, non-teens	Continued isolation, even after GLB finds these friends	Find support group explicitly for GLB group, in school or community
3. For GLB student alliances with straight students	Difficulty in GLB and straight students working together for school policy changes	Become actively involved in working for these changes
4. For gay, lesbian, or bisexual role models (teachers or speakers)	Problem in GLB youth relating completely to words and actions of adult speakers or teachers	Speakers can be asked about current trends they support among GLB youth
Parent-Child Relationships 5. For child's independent search for personal happiness and career choice	Dangers of underachievement in GLB youth who seek a "too-independent" course	Schools, churches, social-service agencies can be encouraged to offer mentors for GLB youth
6. For parental pointers toward GLB role models in the community	Danger in parents finding "off the mark" role models for their GLB youth	Parents seek out a variety of role models through GLB youth centers
7. For independence training		
School Acceptance 8. For school-provided counseling opportunities for GLB youth	Counseling that doesn't address discrimination or doesn't affirm GLB identity directly	Become actively involved with your own GLB students in affirming their struggle for identity and in redressing discrimination among them
9. To talk and write about troubling issues/feelings in school	GLB youth feelings may not be understood, or may even be betrayed, by teachers or peers	Set, and abide by, rules of confidentiality in class discussions and writings on GLB topics
10. For acceptance of loners	Telltale signs of suicidal ideation or substance abuse may go unnoticed with GLB loners	Follow up on suicide or substance-abuse signs in these students

Note. From *The Edge: Social and Emotional Lives of Gifted Gay, Lesbian, and Bisexual Pupils,* by T. P. Friedrichs, 1997. Speech at the National Association for Gifted Children Conference, Little Rock, AR. Reprinted with permission.

9. They felt angst, depression, and experienced suicidal thoughts. None of them "came out" to their teachers, and only a third came out to their parents.
10. When they went to college, they felt less depressed as they drew closer to the support groups available there.

Underachievement

There are several writers and researchers who have made important contributions to our knowledge of underachievement. Among these are James Delisle, James Gallagher, Sally Reis, Sylvia Rimm, Susanne Richert, Patricia Supplee, and Joanne Whitmore. Lori Flint has done life histories of successful adults who were underachievers that have contributed to our knowledge, as well. Underachievement continues to plague educators of the talented as one of the most recalcitrant problems that high-IQ youth continue to have. By now we know that each underachiever is different, and that each case of underachievement must be looked at individually to determine the reason for the underachievement, which allows us to be better able to reverse the underachievement.

What is underachievement? The quick answer most people would give is that underachievement is not receiving the grades that one's IQ would indicate are possible. Another quick definition is that underachievement is receiving high scores on standardized achievement tests but low grades in school. A third definition of underachievement blames the causes for the underachievement; for example, underachievement is caused by learning disabilities, underachievement is caused by the social climate of the school, or underachievement is caused by affective characteristics in the child. People usually assume that the underachiever is receiving lower grades than test scores would indicate are possible, and that this failure to achieve is somehow a refusal to achieve.

Underachievement may come about from environmental and personal factors. Environmental factors are such things as peer influence, poor teaching, and insufficient schools. Changing the environment often changes the pattern of underachievement. The environment can be changed by teaching the student how to cope, or by moving the student from the environment. Personal factors include neurological difficulties such as learning disabilities or physical difficulties such as hearing impairment. Silverman (1989a) found that underachievers often had difficulty in sequencing, while being above average in vocabulary and having the ability to reason abstractly, to perceive spatial relations, and to analyze mathematical relations.

Oh, how underachievement bothers educators of the academically talented! Here is a child with a high IQ who refuses to do the work in the classroom. Here is a child with high achievement test scores who

refuses to turn in the projects. The educators beg, cajole, compliment, and harangue the child. The parents beg, cajole, compliment, and harangue the child. "You have such potential! You should be doing better! You won't get into a good college with grades like these! You could do so well; why won't you produce?" The child is the powerful force in these dynamics, both with the parents and with the school, and that is why Rimm (1986) insisted that there must be a "tri-focal" approach to reversing underachievement—the *school*, the *parents*, and the *child* must all take responsibility for the reversal or the underachievement will continue. The child is the key figure in this triangle. When all three work together, the achievement may happen; however, Rimm (2003) noted that the "bi-focal" approach, where the child and the school work together is also possible: "Reversing the pattern without parental assistance is not as efficient, but is nevertheless effective for many children" (p. 433).

It is often assumed that children want to do well in school, and schools and parents are often quick to blame themselves for underachievement. It is often assumed that the evils of the society—racism, classism, prejudice against the handicapped—are to blame for underachievement. It is often assumed that children are feckless victims of "the system." If this is true, then why do some children from lower social classes, of various races, with learning disabilities and physical handicaps, achieve despite the "system," and others do not? The quality of resiliency discussed above seems operational here.

What are the personality traits of people who underachieve? For underachieving males at least, Terman and Oden (1947) found that those who didn't meet the potential their IQ scores indicated were (1) unable to persevere, (2) unable to formulate goals, (3) preferred to drift rather than to take action, and (4) had low self-confidence. These problems were chronic; that is, they continued from childhood to adolescence to adulthood (Terman & Oden). Underachievement, Delisle (1992) reminded us, is often in the eyes of the beholder.

Whitmore's Work on Underachievement

Whitmore's 1980 book, *Giftedness, Conflict, and Underachievement*, was a milestone in that she specifically studied children who, in 1970, were put into a special program that sought to remedy underachieving behavior. This program was called the Cupertino Project, and it focused on second and third graders who were had very high IQs but who were underachieving. Individualized instruction was offered and results showed that students' achievement generally improved over the long term. However, the Cupertino program had drawbacks, including the cost.

Rimm's Work on Underachievement

Rimm (1986, 2003) used a behavioral approach to the reversal of underachievement. She described four different categories of underachievers: the *dependent conformers*, the *dependent nonconformers*, the *dominant conformers,* and the *dominant nonconformers.* These are children who are outside what she called the "circle of achievers." Here are characterizations of these children.

Underachievers were grouped into dependent children and dominant children, conformers and nonconformers. Dependent children manipulate adults and others in their environment by such plaintive pleas as "help me," "nag me," "protect me," "feel sorry for me," "love me," and "shelter me." The difficulty is in determining when these pleas are manipulative and when they are genuine. Rimm said parents and teachers "must assure yourselves that these children can build self-confidence and competence only through effort and perseverance, and that it is indeed a true kindness to permit these children to experience some stress" (Rimm, 1986, p. 148).

Rimm suggested steps in remediation for each of these groups. She was quick to point out that family patterns often foster or encourage underachievement, for passive-aggressive children often have one passive-aggressive parent and one who is made the bad guy; likewise, with aggressive children, there is often aggression in the family. Patterns in the family can be both positive and negative for achievement. Rimm said that potentially harmful family models included the following:

1. the notion of "I didn't like school either,"
2. having a home that is disorganized,
3. having passive-aggressive parenting, and
4. having parents who are overworked who come home exhausted, complaining, and failing to provide models that work is satisfying, challenging, and life-enhancing.

Rimm's work was criticized for being too negative to parents. In a review of Rimm's *How to Parent So Children Will Learn* (1990b), Baum (1990) said that "Rimm does not take into account different parenting styles, values, and good instincts" and she stated that Rimm's rules make many parents feel guilty. However, proponents of clinical interventions utilizing behavioral approaches such as Rimm's would say that drastic measures are often needed in reversing underachievement, which is often entrenched, insidious, and a hallmark of dysfunction in the family or school. "Rimm is tough love," said one therapist. Rimm's advice to parents appears regularly on national television and radio and her books are best-sellers.

Divorce and Underachievement

These days, there are many children of divorce, and gifted children are not immune from this social phenomenon. The family is in chaos. Karnes and Marquardt (1991a), in their consideration of legal issues having to do with gifted children, said, "we were surprised by the number of child custody and child support cases where the giftedness of the child became an issue" (p. 98). Rimm (1986) seemed to feel that achievement can continue throughout the divorce, but Wallerstein and Blakeslee, in their longitudinal studies of children of divorce (1989, Wallerstein & Lewis, 2000), noted that underachievement is almost always a byproduct of divorce, even years later. Boys who are between the ages 6 and 8 when their parents get divorced "have a particularly difficult time adjusting to the changes in their lives" (Wallerstein & Blakeslee, p. 77). They often are unable to concentrate, and may withdraw or "clobber everyone in sight" (p. 77).

Wallerstein and Blakeslee (1989) attributed this to fears of being overwhelmed by female authority just at the age when developing strong identifications with their fathers and other male figures was crucial. The authors followed their subjects for 25 years and concluded sadly that about a third of the children they studied still lacked ambition 10 years after the divorce, and said that they were "drifting through life with no set goals, limited educations, and a sense of helplessness" (1989, p. 28). Twenty-five years later, they still bore scars, and Wallerstein and Lewis (2000) advised parents who are about to divorce to have joint custody or to make sure they act like adults in the custody situations, thinking of the children at all times.

That gifted and talented youth are exempt from the tragic consequences of their parents' divorces is certainly false. Indeed, if we give the theory of asynchrony and the theory of emotional intensity (such as noticed in overexcitabilities) some credence, study after study has shown that gifted and talented youth may be *more* vulnerable, for their sensitivities are often higher tuned and deeper felt, as their advanced intellects and intensities cope with the splits in their nuclear families (Feldman & Piirto, 2002). In fact, one immutable fact that was found by the Johns Hopkins SMPY researchers was that high academic achievers most often came from families that were intact (Benbow, 1992).

Richert's Work on Underachievement

Richert (1991b) presented a refreshingly different definition of underachievement, pointing out the obvious but often overlooked question: What if the IQ is not a good measure of potential after all? What if the IQ test that puts the child in people's minds into "underachieving status" was inaccurate? Richert noted that "underachievement is most often defined in terms of academic achievement" measured by school-related methods such as grades, standardized test scores, and teacher-made test results (p. 147).

What if these are not good ways of assessing underachievement? What if the tests themselves are the problem?

The child's life as a whole should be assessed. Does the child who gets low grades and who has high test scores have an intense life of achievement at home? Does she read seven books a week? Does he program computers and participate in a wide network of computer friends throughout the area? Does she have sketchbooks and do intensive drawing and artwork? Does he practice his music for 7 hours a day? How is this child underachieving? Richert, in questioning the definition of underachievement, posed an interesting conundrum: If many high achievers in later life found the schools stifling and boring, and the teachers and rules worse, what is the role of the schools in talent development in the various domains?

Delisle's Work on Underachievement

Delisle (1992) also questioned the definition of underachievement. He stated that underachievement should be differentiated from nonproduction. Saying that the sad history in the attempts to reverse underachievement indicates that perhaps there was nothing there to reverse because "the term itself was (and is) too ill defined" (p. 127), Delisle nevertheless attempted to define it. A nonproducer is someone who is "very much in touch with both himself and the world of learning but unwilling to do much of his assigned work" and an underachiever is "a lost soul in the academic miasma called school who desperately wants to do better—and feel better—but is at a loss as to how she might begin to do either" (p. 120).

Supplee's Work on Underachievement

In 1990, Supplee wrote *Reaching the Gifted Underachiever*, and she used Abraham Tannenbaum's conception of giftedness to define underachievement. Tannenbaum (1983), in *Gifted Children*, said that giftedness emerges if all five arms in a "starfish" are present (see Figure 1.5). Supplee said that the underachievers she studied were missing one or more of the starfish arms; some had high IQs but didn't have other factors; some had fantastic special abilities but didn't have persistence; some were very poor, a negative environmental factor, although they had all four other factors; and some had physical or learning disabilities, which fall into the chance arm. The presence of a program for underachieving gifted children is also a chance factor in the life of an underachieving student.

Supplee (1990) said school-survival skills are "necessary for success in school but normally are not taught there" (p. 144). You could call these the tacit knowledge needed in school. Many underachievers are not cued to play the school game. They can't "read" their instructors; they are not sensitive to the environment of the classes or the school; they blunder where they should tap dance. School-survival skills were taught to underachiev-

ers using role-playing, among other strategies. Among the school-survival skills need by underachievers were:

1. how to listen, and look as if they were listening,
2. how to ask a teacher or a friend for help,
3. how to bring needed materials to class,
4. how to follow written and oral instructions,
5. how to memorize efficiently,
6. how to use an assignment pad well,
7. how to study for tests,
8. how to complete short-term assignments,
9. how to complete long-term assignments,
10. how to contribute to a class discussion,
11. how to ignore distractions,
12. how to ask a question in class,
13. how to decide what to do when assigned work is finished,
14. how to set medium- and long-range goals,
15. how to deal with an accusation,
16. how to accept consequences for mistakes in work or behavior,
17. how to negotiate with the teacher,
18. how to make good decisions,
19. how to deal with time pressures and schedules,
20. how to set priorities,
21. rewarding themselves for tasks well done,
22. learning to say no when work must come first, and
23. how to overlearn something to make sure it's mastered (Supplee, 1990, pp. 145–146).

These skills are necessary for all good students, and underachievers lack some or most of them. For gifted underachievers, the ability is not the question; other factors present difficulty in achievement. Flint (2002, 2004) took life stories of four successful adults who had been underachievers. They had refused to play the "school game."

> Lack of success in school led to years of personal difficulty, including substance abuse and suicidal tendencies, leading to hitting bottom. After hitting bottom, each made the conscious choice to change, which included a return to college to successfully complete formal education. (Flint, 2002, p. 1)

Their ultimate success lends hope to the despair of all those who bemoan the underachievement of gifted and talented youth. The caution here is that they had to hit bottom before rising up.

An Individual and Group Educational Guidance Plan (IEP)

By now it is obvious that the counseling and guidance component in a talented youth's life is as important as the curricular component, for who but the adult professional guidance person, the adult expert in the education of the talented, can guide the choices the talented youth makes? For this it is necessary to have a regularly updated plan on file. This plan should be jointly made by the school and the student, with active participation and input from the parents and the various instructors of the student. The plan should have components that include specific information about the student's talent areas, assessment instruments or observational instruments that have been administered, or predictive behaviors that have been observed. There should be a short-term component and a long-term component. This plan should follow the student from school to school, level to level, and should be periodically consulted and modified. The specialist in talent education should be aware of this plan, as should all the teachers the student has, especially the teachers in the talent area(s). The plan should be administered by guidance personnel or specialists in talent education. Figure 11.2 shows an outline of such a plan.

Conclusion

A final word. Anti-intellectual feelings are common in a supposedly egalitarian society. While many people think that talented youths will "make it on their own," and while still other people resent these youths and blatantly discriminate against them, seeing them as privileged and lucky and therefore not deserving of special treatment, the facts are obvious. These are children, too. They were born into this world the way they were. They didn't ask to be born with talent potential, with academic potential, with the ability to think quickly, to remember, to formulate abstractions, to question, to love learning. They have social and emotional needs based on the way they are, just as do all other children. They need adult advocates who will guide them, counsel them, and look out for them, just as do all other children.

Name _____ F _____ M _____ Date of Birth _____

Date _____ School _____ District_____
City, State_____
Person administering this plan _____ Title _____

Talent area(s): _____ Mathematics _____ Verbal _____ Science _____ Social Science
_____ Foreign Language _____ Visual Arts _____ Vocal Music _____ Instrumental music _____ Drama
_____ Dance _____ Athletics _____ Socioemotional _____ Mechanical
_____ Technological _____ Invention _____ Leadership _____ Business _____ Other

I. Means of assessment of talent area(s) (Attach protocols)
(Do not use composite scores; use individual content area scores.)

_____ 1. Standardized group ability test. Which?_____ Talent area(s)_____
_____ 2. Standardized individual ability test. Which? _____ Talent area(s) _____
_____ 3. Standardized group achievement test. Which? _____ Talent area(s) _____
_____ 4. Standardized individual achievement test. Which? _____ Talent area(s) _____
_____ 5. Proficiency test. Which? _____ Talent area(s) _____
_____ 6. Behavioral checklist. Which? _____ Describe behaviors checked. (Attach protocol).
_____ 7. Personality inventory. Which?_____ Comment. (Attach protocol)
_____ 8. Predictive Behaviors. _____ Observed by Family _____ Self-Referred _____
      Observed by Teachers _____Observed by Peers _____ Community
      What behaviors indicate talent in this student?
          _____ Projects _____ Portfolio _____ Extracurricular interests and achievements
          _____ Out-of-school interests _____ Contests _____ Grades _____ Other
      Describe the behaviors indicated.

  9. Student personal and vocational interest inventory administered? _____ Yes _____ No (Attach)
10. List student interests.

11. Student curriculum modified to accommodate talent area? _____ Yes _____ No (Attach)
12. Student's parents consulted about student's talent? _____ Yes _____ No
    Attach memo of parent conference. Date held _____

For person in charge of plan:
Attachments: Item 1____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____ 8 ____ 9 ____ 10 ____ 11 ____ 12 ____

II. Short-Term (One-Year) Talent Development Plan

A. Interventions in classroom: ____ Placement in special class ____Honors class
____ Placement in special school ____ Advanced placement ____ Resource teacher ____ Cluster group
____ Pull-out program ____ Curriculum compacting ____ Acceleration ____ Enrichment ____ Other
Describe modifications:

B. Interventions outside of class: ____ Individual counseling ____ Group counseling
____ Individual assessment ____ Group assessment ____ Mentor(s) found ____ Individual lessons
____ Group lessons ____ Special club(s) ____ Extracurricular participation ____ Scholarships
____ Summer programs ____ Saturday programs ____ Contests ____ Competitions
____ Projects in area(s) of talent(s) ____ Community involvement ____ Library involvement
____ College planning ____ Other
Describe the items checked:

C. Guidance: ____ Group guidance ____ Individual guidance ____ Mentoring ____ Shadowing
____ Testing ____ Talent and interest guidance ____ Ongoing career information
____ Gender-specific guidance ____ Special projects/programs ____ Peer guidance
____ Parent guidance ____ Scholarship information ____ Other
Describe:

D. Counseling: ____ Social-emotional—needs group counseling
____ Social-emotional—needs individual counseling ____ Referral to therapist
____ Gender-specific counseling ____ Sex/substance abuse counseling
____ Counseling dealing with asynchrony ____ Peer counseling ____ Family counseling
____ Cross-age counseling ____ Other
Describe:

III. Long-Term (2- to 5-Year) Talent Development Plan

A. Interventions in classroom: ____ Placement in special class ____ Honors class
____ Placement in special school ____ Advanced placement ____ Resource teacher ____ Cluster group
____ Pull-out program ____ Curriculum compacting ____ Acceleration ____ Enrichment ____ Other
Describe modifications:

B. Interventions outside of class: ____ Individual counseling ____ Group counseling
____ Individual assessment ____ Group assessment ____ Mentor(s) found ____ Individual lessons
____ Group lessons ____ Special club(s) ____ Extracurricular participation ____ Scholarships
____ Summer programs ____ Saturday programs ____ Contests ____ Competitions
____ Projects in area(s) of talent(s) ____ Community involvement ____ Library involvement
____ College planning ____ Other
Describe the items checked:

C. Guidance: ____ Group guidance ____ Individual guidance ____ Mentoring ____ Shadowing
____Testing ____ Talent and interest guidance ____ Ongoing career information
____ Gender-specific guidance ____ Special projects/programs ____ Peer guidance
____ Parent guidance ____ Scholarship information ____ Other
Describe:

D. Counseling: ____ Social-emotional—needs group counseling
____ Social-emotional—needs individual counseling ____ Referral to therapist
____ Gender-specific counseling ____ Sex/substance abuse counseling
____ Counseling dealing with asynchrony ____ Peer counseling ____ Family counseling
____ Cross-age counseling ____ Other
Describe:

Date: _____
Initials: _____

Scheduled update of plan:

Figure 11.2. Guidance and counseling plan for talent development

Note. Guidance and counseling plan designed by Jane Piirto, 1994a, revised in the second edition (1999a), and revised again in this edition.

Case Example:
Judith Resnik

Dr. Judith Resnik (1949–1986) was the second American woman in space, but her accomplishments do not stop there. Resnik was the first Jew to enter space. She received her bachelor's degree in electrical engineering in 1970 from Carnegie-Mellon University. She then went to work for RCA Corporation where she worked in their missile and surface radar division, as well as their service division. She left in 1974 to become a staff scientist in the neurophysiology laboratory at the National Institutes of Health.

She continued her schooling at the University of Maryland, where she received her Ph.D. in electrical engineering in 1977. She went to work as a product developer for Xerox Corporation. When she heard that NASA was going to admit women into the space program, she was determined to become an astronaut. She did everything she could to be in the best physical shape, and learned as much as she could about NASA and space. She joined NASA's space program in 1978.

She and Sally Ride, the first U.S. woman in space, worked together on the design and development of the remote manipulator system. She also worked as a commentator for ABC to explain what was happening on board for the fourth shuttle mission. Tragically, Dr. Resnik was one the seven astronauts killed in the explosion of the *Challenger* (Shuttle Mission 51L) on January 28, 1986.

Resnik attended Firestone High School in Akron, OH, graduating in 1966. Resnik "maintained top-notch grades, sought further Jewish education, and made her own beginning forays into male-female relationships, all the while enduring parents who were constantly at war," according to biographers Bernstein, Blue, and Gerber (1990, p. 17). She took the most advanced courses in science and mathematics and a photograph of the mathematics club shows her as the only female member. She graduated as valedictorian of her class. One of her mathematics teachers saved her Advanced Placement mathematics test to use as a model of neatness and logical thinking for students.

Judith displayed an attitude of risk taking by dating Len Nahmi, a boy of Arab/Irish heritage, sneaking out of her room at night to meet him, as her parents didn't approve. Her parents divorced while she was in high school, and she lived with her mother, who hated her boyfriend. Her mother Sarah "demanded unceasing perfection from her daughter" (Bernstein et al., 1990, p. 18). Judith sued to have her father be given custody of her, and she won. But, she and Len broke up under her

mother's pressure, only to reunite years later, after Judith's divorce from a suitable Jewish boy. Len had become a pilot for Canadian Airlines, and he encouraged her in her efforts to become a licensed pilot.

Judith now had the unwavering support of the two men closest to her—her father and her former boyfriend. When her divorce became final, she sent a postcard to Len with two words on it: "I'm single." She also contacted Senator John Glenn of Ohio, the first American astronaut to orbit the earth, asking his help in entering the space program. Len gave her the practical advice that she should share with NASA whatever good things happened to her while her application was in process.

Judith began getting into physical condition. She passed the rigorous NASA physical and was one of 200 female candidates. In January 1978, she became one of four women accepted as an astronaut candidate.

Resnik demonstrated the personality and academic qualities referred to throughout this book. She took risks, and she demonstrated persistence and resilience, even in the face of personal problems such as her parents' oppositional marriage and their divorce during her vulnerable high school years. She survived her own divorce and went on to become an American heroine.

Summary

1. The guidance and counseling needs of the gifted and talented have been historically underemphasized.
2. A key internal description of having a high IQ is *asynchronicity*.
3. Research into the psychosocial and affective development of high-IQ students indicates generally positive adjustment for moderately high-IQ students, and less positive adjustment for very high-IQ students.
4. Academically talented and other talented youth need specially informed counselors and specialists to help them with their talent development.
5. Among guidance issues that should be addressed are academic planning, acceleration, career development, finding mentors, multipotentiality, learning styles, testing, program articulation, vocational guidance, volunteerism and service, and the gender issues underlying all of the above.
6. Common counseling issues for talented youth are issues of anger, boredom, having a very high IQ, introversion, intuition, peer relations,

perfectionism, overachievement, resilience, self-concept/self-esteem, stress, sexual identity, and underachievement.

7. An individual educational guidance plan (IEP) is necessary for all talented students.

8. *Challenger* astronaut Judith Resnik displayed persistence, resilience, and academic talent in pursuing her goal to be in the space program.