

UNDERACHIEVEMENT AND THE GIFTED CHILD

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Talented students who are unmotivated to engage in academic tasks frustrate parents, educators, and psychologists (Colangelo, 2003; Renzulli, Reid, & Gubbins, 1991). When the National Research Center on the Gifted and Talented conducted a national survey of educator concerns, the underachievement of gifted students topped the list (Renzulli et al., 1991). It is similarly a concern of psychologists and counselors. Colangelo (2002) suggested the “most intense counseling focus” (p. 14) for gifted students is underachievement. Colangelo (2003) also noted that underachievement is the problem that counselors in his Center most often addressed.

Underachievement transcends racial and ethnic barriers. It affects students from rural, suburban, and urban areas and from low, medium, and high socioeconomic groups (Karaduman, 2013). Often, underachievement begins to surface around middle school (Peterson & Colangelo, 1996), a time when the attitudes of gifted students become increasingly negative (Lupart & Pyryt, 1996), and it may continue into high school and beyond (Peterson & Colangelo, 1996). Although some gifted students reverse this pattern and become achievers later in their academic or occupational careers, other students continue down a path of underachievement (McCoach & Siegle, 2014). Not only do consequences of underachievement represent a loss to society (Gowan, 1955), but underachievement may also hamper the individual’s life pursuit of self-actualization. Although academic achievement is

not the only form of achievement, it can influence college success and occupational achievements (McCall, Evahn, & Kratzer, 1992), and academic underachievement has been linked to depression and behavioral issues (Borkowski & Thrope, 1994; Sheridan, Koziol, Clarke, Respoli, & Coutts, 2014; Valentine, DuBois, & Cooper, 2004).

The study of academic underachievement has a long history within the field of gifted education (Emerick, 1992; Fong, Snyder, Barr, & Patall, 2014; Gowan, 1955; Reis & McCoach, 2000; Siegle, McCoach, & Rubenstein, 2012; Snyder & Linnenbrink-Garcia, 2013). Almost a century ago, Leta Stetter Hollingworth (1923), of the renowned Speyer School, expressed concern about students with superior intellectual ability who failed to reach their potential. However, overall concern about underachievement was rare before the mid-1950s. McCall et al. (1992) suggested “this is because it was not until then that the measurement and prediction of ability and achievement were refined or accepted . . . and because social and political interest had not focused on the problem” (p. xiii). Although much has been written about the underachievement of gifted students, Morisano and Shore (2010) suggested “underachieving gifted students have been largely ignored in empirical research” (p. 249) with most studies dropping off since 2000. Why have so few empirical research studies been conducted on gifted underachievement? One reason may be the difficulty of defining gifted underachievers.

WHO ARE GIFTED UNDERACHIEVERS?

Informally, gifted students whose grades have dropped, who don't do their homework, or who put off completing projects could certainly be candidates for underachievers. More formally, who gifted underachievers are and the extent of underachievement among gifted students are difficult to measure for three reasons. First, there is no universally accepted definition of giftedness. Theories of giftedness abound (Sternberg & Davidson, 2005), as do lists of characteristics to use in identifying gifted students (Johnsen, 2005; Peters & Gentry, 2010). Second, some controversy surrounds the definition of underachievement. Third, there is a value judgment surrounding the term *underachievement*. Whose standards, expectations, or values should be used to determine whether a student is underachieving?

The National Association for Gifted Children (NAGC, 2010) suggested that

gifted individuals are those who demonstrate outstanding levels of aptitude (defined as an exceptional ability to reason and learn) or competence (documented performance or achievement in top 10% or rarer) in one or more domains. Domains include any structured area of activity with its own symbol system (e.g., mathematics, music, language) and/or set of sensorimotor skills (e.g., painting, dance, sports).

The development of ability or talent is a lifelong process. It can be evident in young children as exceptional performance on tests and/or other measures of ability or as a rapid rate of learning, compared with other students of the same age, or in actual achievement in a domain. As individuals mature through childhood to adolescence, however, achievement and high levels of motivation in the domain become the primary characteristics of their giftedness. Various factors can either enhance or inhibit the development and expression of abilities. (p. 1)

For the most part, students identified as gifted and talented in elementary school are those students who are doing things earlier and better than their same age peers. They may also be able to do things earlier and better if they are given appropriate opportunities. As students grow older, their advanced abilities become more specialized and potential is expected to manifest itself. Therefore, gifted underachievers may fail to further develop advanced skills which they initially demonstrated, or their untapped potential may fail to materialize. In both cases, underachievement is a discrepancy between what is and what might be and it represents talent lost. Underachievers may also include those who have developed talents, but are choosing not to display them.

Using the NAGC definition, young people who demonstrate outstanding aptitude at an early age but fail to develop that aptitude (a) may no longer be considered gifted or (b) may be considered underachievers. The NAGC definition is not without critics. Delisle (2014) objected to this definition of giftedness, which focuses strongly on talent development. He believed the essence of the gifted child as something other than an academic specimen is lost.

Regardless of the definition, most researchers agree that underachievement is a discrepancy between expected performance (i.e., potential), often measured by some test, and actual performance (i.e., achievement), often measured by achievement tests or school grades (Baum, Renzulli, & Hébert, 1995; Dowdall & Colangelo, 1982; Emerick, 1992; Reis & McCoach, 2000; Rimm, 1997; Supplee, 1990; Whitmore, 1980). However, the severity of this discrepancy is crucial when considering whether to label someone as a gifted underachiever; an undiagnosed learning disability resulting a lower than expected achievement should also be considered. Given the phenomenon of regression to the mean, those with the highest measured ability are not likely to have an equally extreme achievement level. Ability and achievement are not perfectly correlated (Thorndike, 1963). Intelligence test scores explain only 25% of the variance in school grades and achievement test scores (Neisser et al., 1996). This leaves 75% of the fluctuation in achievement test scores unaccounted for by IQ scores. On the basis of this relationship, a student with an IQ score of 145 (three standard deviations

above the mean) would have a predicted achievement of only 1.5 standard deviations above the mean. Most people probably perform somewhat below their capacity or ability. Therefore, the discrepancy between a student's ability and his or her achievement must be severe enough to warrant substantial concern. Although it seems reasonable to expect gifted students to exhibit above-average achievement, it is unreasonable to expect their achievement to be as exceptional as their ability.

Reis and McCoach (2000) published a comprehensive review of the literature on gifted underachievers and proposed the following definition of underachievement that has been used in numerous studies:

Underachievers are students who exhibit a severe discrepancy between *expected achievement* [emphasis added] (as measured by standardized achievement test scores or cognitive or intellectual ability assessments) and *actual achievement* [emphasis added] (as measured by class grades and teacher evaluations). To be classified as an underachiever, the discrepancy between expected and actual achievement must not be the direct result of a diagnosed learning disability and must persist over an extended period of time. Gifted underachievers are underachievers who exhibit superior scores on measures of expected achievement (i.e., standardized achievement test scores or cognitive or intellectual ability assessments). (p. 157)

When underachievers have a discrepancy between a high IQ score or a high achievement score and low grades, the grades do not necessarily need to be "bad" grades (i.e., D or F). Gifted underachievers could simply have grades lower than might be expected for someone with their abilities (McCall, 1994). Fong et al. (2014) cautioned that low achievement should not be confused with underachievement, particularly when students are not capable of achieving at higher levels. As Reis and McCoach (2000) noted, the underachievement cannot be the result of a diagnosed learning disability and must be present over an extended period of time. Students with learning

difficulties often score higher on tests of cognitive abilities, which do not require considerable amounts of reading, than they do on standardized achievement tests, which do require considerable amounts of reading. This is particularly true for a student with a reading disability. Peterson (2001) cautioned, "Wise educators will not make judgments about future prospects for underachievers based on only one stage of development or during a time of significant personal or family transition" (p. 246).

The most frustrating discrepancy for teachers and parents is that of students with high achievement scores and low grades. These individuals appear to be learning the content, however, they are failing to produce quality school work. Not completing homework is often a key factor in underachievers earning lower grades (Baslanti & McCoach, 2006; McCoach & Siegle, 2003a). Some argue (Delisle & Galbraith, 2002; Hébert, 2011; Porter, 2005) that students who choose to put their energies into areas other than schoolwork should not be labeled underachievers, and the label of underachievement is often a value judgment.

Labeling a student an underachiever requires making a value judgment about the worthiness of certain accomplishments. A teacher may believe that reading Huckleberry Finn is more worthwhile than mastering a new video game, but a child may not. This behavior illustrates a value conflict between adults and child. (Reis & McCoach, 2000, p. 156)

As previously noted, it is unreasonable to expect gifted students to achieve at the highest levels in every area. Gifted students may choose not to exert effort in areas that are not important to them, while expending effort to achieve in areas that they enjoy and value. This is sometimes referred to as *selective achievement*. Additionally, each student possesses a unique band of traits and talents. Therefore, even highly gifted students may perform at near average levels in an area of relative weakness.

In addition to selective achievement, the term *nonproducer* has also been proposed (Delisle, 1992; Delisle & Galbraith, 2002). From this perspective, students are electing not to do the work others may

ask of them. As with selective achievement, the choice to be engaged is with the student. Ultimately, the final decision about what to pursue is made by the individual. However, there is an additional twist. Failing to earn good grades has ramifications. In the largest longitudinal study of underachievers conducted to date, McCall et al. (1992) documented the role classroom grades play in future productivity. Thirteen years after high school, the educational and occupational status of high school underachievers paralleled their grades in high school, rather than their abilities.

WHAT ARE THE CHARACTERISTICS OF UNDERACHIEVERS?

Although there appear to be several different types of underachievers (Heacox, 1991; Mandel & Marcus, 1988; Rimm, 1995; Siegler & McCoach, 2005), factors commonly associated with underachievement include the following:

- low academic self-perceptions (Freedman, 2000; Matthews & McBee, 2007; Schunk, 1998; Supplee, 1990; Whitmore, 1980),
- low self-efficacy (Siegler & McCoach, 2005),
- low self-motivation and low effort toward academic tasks (Albaili, 2003; Baslanti & McCoach, 2006; Lacasse, 1999; Matthews & McBee, 2007; McCoach & Siegler, 2003b; Rayneri, Gerber, & Wiley, 2003; Weiner, 1992),
- external attributions (Carr, Borkowski, & Maxwell, 1991; Siegler & McCoach, 2005),
- low goal-valuation (Baslanti & McCoach, 2006; Freedman, 2000; Lacasse, 1999; Matthews & McBee, 2007; McCall et al., 1992; McCoach & Siegler, 2003b),
- negative attitude toward school and teachers (Colangelo, Kerr, Christensen, & Maxey, 1993; Ford, 1996; McCoach & Siegler, 2003b; Rimm, 1995), and
- low self-regulatory or metacognitive skills (Carr et al., 1991; Krouse & Krouse, 1981; Yu, 1996).

Interestingly, underachievers appear to be a diverse group. Many underachievers exhibit deficits in one or more of these characteristics. Very few underachievers display low levels on all

characteristics, and some underachievers may not exhibit deficits in any of these areas. Therefore, the variability of motivational and attitudinal measures within samples of underachievers tends to be higher than the variability for comparison groups of average or high achievers. For example, groups of gifted underachievers display significantly more variability on self-report measures of motivation, perceptions, and attitudes than do gifted achievers (McCoach & Siegler, 2003b). The large amount of variability suggests that although underachievers may share some common characteristics, they are not a homogeneous population of students. Each student may underachieve for a somewhat unique reason or combination of reasons; therefore, it is possible that gifted underachievers may be low on only one or two of the many characteristics commonly ascribed to underachievers, and may be average or even above average in other areas. This variability among gifted underachievers is one of the reasons reversing student underachievement is such a perplexing issue. Given this variability, several researchers and practitioners in the area of underachievement have proposed specific subtypes of underachievers (e. g., Heacox, 1991; Mandel & Marcus, 1988, 1995; Rimm, 1995, 1997; Siegler & McCoach, 2005), and each type of underachiever might require a different intervention strategy. Other researchers (Snyder & Linnenbrink-Garcia, 2013) proposed multiple developmental trajectories in underachievement that develop through early school experiences. These can include developing maladaptive coping behaviors and declining value beliefs about school. Some research suggests that underachieving gifted students share more common characteristics with underachievers in general than they do with achieving gifted students (Dowdall & Colangelo, 1982; McCall et al., 1992).

Gender

Studies in the United States over the last half century suggest that gifted boys underachieve at two to three times the rate of gifted girls (Baker, Bridger, & Evans, 1998; Gowan, 1955; Matthews & McBee, 2007; McCall, 1994; McCoach, 2002; McCoach & Siegler, 2001; Peterson & Colangelo, 1996; Richert, 1991; Rubenstein, Siegler, Reis, McCoach, & Burton,

2012). Some data indicate that the underachievement boys experience in school follows them beyond school. Girls enter and graduate from college in greater numbers with higher GPAs than do boys (Conger & Long, 2010; Sheard, 2009).

Boys appear to value some school subjects less than girls. Siegle and Reis (1998) reported gifted boys and girls in middle school saw mathematics, science, and social studies as being equally important. However, boys believed language arts was less important than did girls, and boys felt they had less ability in language arts than did girls.

Grade 7 appears to be critical for boys, whereas Grades 8 and 9 are more critical for girls. Because girls display the types of behaviors that are rewarded in classrooms and their underachievement starts later than boys (Peterson & Colangelo, 1996), it is possible that girls' underachievement is being overlooked. Counselors and psychologists, therefore, should pay attention to gifted girls who are doing average work. Because boys are more likely than girls to be extreme underachievers, they are also more likely to be identified.

Peers

Peers can positively or negatively affect students' achievement. In a national longitudinal study of secondary students, students with peers who cared about learning showed better educational outcomes than those whose peers were less educationally oriented (Chen, 1997). Reis, Hébert, Diaz, Maxfield, and Ratley (1995) found that high achieving peers had a positive influence on students who were beginning to underachieve and contributed to some students' reversal of underachievement.

However, peers can also have a negative effect. Clasen and Clasen (1995) found 66% of high-achieving students reported peer pressure, and the attitude of other students, including friends, was a primary force in not getting good grades. In Coleman and Cross's (2005) discussion of coping with giftedness and standing out, the authors noted, "in adolescence, it becomes a greater problem for the studiously inclined gifted child because intellectual pursuits become less acceptable to peers" (p. 168).

Young people who underachieve tend to have peers who also underachieve. Berndt (1999) found

that students' grades were more closely related to their friends' grades at the end of the school year than at the beginning, and students' grades decreased from fall to spring if their friends had lower grades in the fall.

Family Factors

Certain types of home environments in the United States may be related to the development of students' achievement and underachievement patterns (Baker et al., 1998; Brown, Mounts, Lamborn, & Steinberg, 1993; Rimm & Lowe, 1988; Zilli, 1971). Inconsistent parenting techniques appear to occur more frequently in the homes of underachieving children (Rimm & Lowe, 1988). Parents of underachievers tend to be either overly lenient or overly strict (Pendarvis, Howley, & Howley, 1990; Weiner, 1992), or may vacillate between lenient and strict. In addition, bestowing adult status on a child at too young an age may contribute to the development of underachievement (Fine & Pitts, 1980; Rimm & Lowe, 1988).

In a qualitative study of gifted urban underachievers, the family dysfunction that characterized the lives of gifted underachievers was contrasted by the happier home lives of gifted achievers (Reis et al., 1995). Conversely, another study comparing the families of underachievers and achievers found that families with underachieving gifted students were not any more likely to be dysfunctional than families with achieving gifted students (Green, Fine, & Tollefson, 1988). However, dysfunctional families with achieving gifted students reported greater satisfaction with their family lives than did dysfunctional families of underachieving students. Regardless of their achievement status, functional families were more satisfied with their adolescent's academic achievement than were dysfunctional families.

An academic home climate fosters beliefs, attitudes, and motivation that lead to higher achievement (Campbell & Verna, 2007). Parents and other caregivers teach children to foster adaptability and accept school responsibilities. They establish good working relationships with teachers and develop a respect for authority in their children. They are supportive of school and monitor school

work. For example, they may show their children how to do homework, but they do not do it for them. Parents and caregivers emphasize setting high expectations and accepting challenges. They instill work habits in the early stages of children's school careers. They emphasize communication skills and promote sociability. Parents and caregivers of achieving students generate curiosity and encourage their children to pursue their academic interests.

Poverty and Underserved Populations

Gifted students of poverty and students from underserved groups are particularly vulnerable to underachievement. Students who are not given adequate opportunities to develop their talents often become *involuntary underachievers*.

Research has illustrated the widening of the excellence–achievement gap among students with varying demographic characteristics (e.g., racial/ethnic groups, low socioeconomic status, limited English proficiency; Plucker, Burroughs, & Song, 2010). Additionally, students with high potential from lower income families “lose more educational ground and excel less frequently than their higher-income peers” (Wyner, Bridgeland, & DiIulio, 2007, p. 4). Disparities between students from lower and higher income families are evident by first grade because of lack of access to preschool programs and other educational resources that influence intellectual development. Moreover, students from culturally, linguistically, and economically diverse communities represent disproportionately low numbers of students scoring at the highest levels of achievement.

Forty-four percent of lower-income students who enter Grade 1 in the top 10% will not score in the top 10% by the time they reach Grade 5 (Wyner et al., 2007). Gifted students from higher-income homes progress twice as fast as their gifted peers from lower-income homes. “In elementary and high school, *lower-income students neither maintain their status as high achievers nor rise into the ranks of high achievers as frequently as higher-income students*” (p. 5). High-achieving lower-income students drop out of high school or do not graduate on time at a rate twice that of their

higher-income peers. They are less likely to graduate from college than their higher-income peers and less likely to attend the most selective colleges. Limited resources in their schools, communities, and families factor into the involuntary underachievement of many students from underserved populations.

Culturally diverse students face unique barriers to their achievement for several reasons. Minority students are often underrepresented in programs for the gifted and talented (Ford, 1996; Siegler, McCoach, Gubbins, Callahan, & Knupp, 2015; Tomlinson, Callahan, & Lelli, 1997) and overrepresented in special education (Ladner & Hammons, 2001). Culturally diverse students continue to face unintentional bias at school and in society at large (Ford, 1996). Further, the definition of achievement in a subculture may be very different from that of the dominant culture.

Students With Attention-Deficit/Hyperactivity Disorder

Attention deficits may also be a problem. McCoach, Siegler, Mann, and Moore (2005) found a high prevalence of inattention among gifted underachievers. In their study using the *ADHD-IV Rating Scales* (DuPaul, Power, Anastopoulos, & Reid, 1998) with 178 underachieving middle school students, parents identified as inattentive four times as many students and teachers identified as inattentive seven times as many students as would be expected in the general population. There were no differences between underachievers and the general population on impulsivity. Rogers (2010) reported gifted students are no more likely to have attention-deficit/hyperactivity disorder–inattentive type or display symptoms of inattention than a general population of students. This suggests that although the prevalence of impulsivity within the underachieving sample appears to be similar to that of a typical school-age population, the prevalence of inattention is actually much higher, and it is higher than one would expect for a gifted population. McCoach et al. (2005) questioned whether the students' inattentiveness was prompting the underachievement or whether their underachievement was manifesting itself in inattentiveness.

POSSIBLE CAUSES OF UNDERACHIEVEMENT

The literature generally suggests a variety of possible causes of underachievement: an initiating situation, excessive power, inconsistency and opposition, inappropriate classroom environment, competition, and value conflicts. Events in students' lives can alter their achievement patterns. This might be a move to a new school or a change in the family structure (e.g., divorce or remarriage). Parents and educators who are aware of these potential pitfalls can possibly prevent or lessen their impact (Rimm, 1995).

Young people who experience excessive power at home can have difficulty adjusting to a school environment in which they have limited choices. Bestowing adult status on a child at too young an age may contribute to the development of underachievement (Fine & Pitts, 1980; Rimm & Lowe, 1988).

Sometimes gifted students who receive conflicting messages from both parents, conflicting messages from parents and teachers, or conflicting messages from gifted specialists and teachers may justify reasons not to achieve. For example, children may overhear their parents expressing discontent over the way the school is addressing the students' gifted needs. A gifted specialist may share with students his or her concern about how the students' classroom teacher is not addressing their academic needs. Each of these scenarios provides children with ammunition that can be used as an excuse for not producing their best work.

Rimm and Lowe (1988) studied the family environments of 22 underachieving gifted students. In 95% of the families, one parent emerged as the disciplinarian, whereas the other parent acted as a protector. Often, opposition between parents increased as the challenger became more authoritarian and the rescuer became increasingly protective. Mandel and Marcus (1995) describe the "wheeler-dealer underachiever," who is impulsive and demands immediate satisfaction and instant gratification—traits that are not conducive to reading a book or working on a project. These students often have parents who strongly differ on their views of their child's behavior and what to do about it. Parents of underachievers also tend to be either overly lenient or

overly strict (Pendarvis et al., 1990; Weiner, 1992), or may vacillate between lenient and strict.

Classrooms do not always provide intellectually stimulating environments for gifted and talented students to thrive. Many gifted students underachieve by default; they simply do not receive the academic content or instruction necessary to reach their potential. Regular classroom time is often unproductive for gifted learners. Fredricks, Alfeld, and Eccles (2010) found that regular classes, as compared with gifted education and advanced classes, tend to undermine, rather than support, a passion for learning. Many gifted elementary school students already know between 40% and 50% of the material to be covered in their current grade prior to the start of the school year (Reis et al., 1993). Most gifted students spend 80% of their time in regular education settings instead of in specialized programs designed to meet their unique needs (Westberg, Archambault, Dobyns, & Salvin, 1993), yet 61% of classroom teachers have not received training in meeting the needs of advanced students (Robinson, Shore, & Enerson, 2007). Matthews and McBee (2007) found that school-year GPA, something that normally would be indicative of underachievement, was not a significant predictor of gifted students' achievement in a summer program designed to meet their intellectual needs. The researchers concluded that their results suggest "educational programs that are designed specifically to address the academic and social needs of gifted students can be successful in reversing many underachievement behaviors" (p. 167).

Lack of challenge in school can manifest in poor work habits. Balduf (2009) studied underachieving college students, who attributed their high school successes to minor effort. She noted,

Not needing to do much to earn the success they wanted, these students were never taught, nor ever taught themselves, how to work through challenging issues. When these participants encountered challenging coursework in college, they were unprepared to deal with it. (p. 275)

Students must learn to function within a competitive society; at the same time, overly competitive

situations can also be detrimental. Gifted students with a fixed theory of intelligence may be particularly at risk in competitive situations.

Holding a fixed theory of intelligence appears to turn students toward concerns about performing and looking smart. Holding a malleable theory appears to turn students toward concerns about learning new things and getting smarter. We have also seen that entity theorists' concerns about looking smart can prevent them from seeking learning opportunities, even ones that could be critical to performing well in the future. (Dweck, 2000, p. 23)

Gifted students with a fixed theory of intelligence (performance orientation) may not wish to risk their "giftedness," something they see as set, by performing poorly in competitive situations. For them, not performing is less risky than performing and failing. Every difficult task is a test of their giftedness, and many underachievers are simply not willing to take the risk (Siegler, 2013). For some, this means not completing the assignment. For others, it means procrastinating and hiding behind statements such as, "I could have done better if I had more time." There is a direct relationship between procrastination and underachievement (Rosario, Schrimshaw, & Hunter, 2009).

Many gifted students do not see their effort as playing a part in their achievement. Siegler and Reis (1998) found that although the teachers' ratings of middle school gifted students' ability ($r = .81$) and effort ($r = .80$) were similarly associated with the quality of work these students produce; gifted students' ratings of themselves were not. Overall, gifted students' responses showed a stronger relationship between their perceived ability and the quality of work they did ($r = .72$) than between their perceived effort and the quality of work they did ($r = .34$). Siegler and Reis contemplated whether these students believed their success was more contingent on their natural ability than the effort they put forth, or whether they were simply reporting that they were not being challenged, and therefore did not need to work hard to produce quality work.

Neither of these proposed scenarios is positive and both could contribute to student underachievement. Wu (2008) noted that Chinese culture deemphasizes giftedness as an innate ability and emphasizes the concept of talent performance. In that culture, gifted children need to take responsibility for developing their gifts.

Recent research (Siegler, Rubenstein, Pollard, & Romey, 2010) demonstrated that gifted college students who are achievers in their first semester can believe that ability is important in doing well without developing a fixed entity view. The researchers noted that

although some researchers have cautioned against recognizing student ability at the peril of diminishing the importance of effort, educators and parents should not be fearful of discussing the role ability plays in gifted students' performances, while also emphasizing the importance of hard work and perseverance. (p. 92)

Perhaps gifted achievers can appreciate the role ability plays in high performance without being paralyzed by it, whereas gifted underachievers view ability as a possible limiting factor in their success.

Value conflicts between family, peers, and the school environment can limit student achievement. As stated earlier, negative peer attitudes often relate to underachievement (Clasen & Clasen, 1995; Weiner, 1992). The reverse can also be true. Attitudes about achievement are essential for doing well in school. Mindnich (2007) found Latino students' background characteristics, including gender, generational status, and maternal education level, did not contribute to differences in Latino student achievement, whereas aspirations for future educational attainment significantly contributed to achievement. The value peers and family place on education play a role in students' achievement.

Although some gifted students underachieve because they have not had opportunities to develop their potential, others choose not to develop their potential. Siegler and McCoach (2005) suggested that achievement (and underachievement) is often an interaction of beliefs. In their achievement

orientation model (Siegle & McCoach, 2005; Siegle, 2013), they suggested that students who underachieve may espouse one of three problematic beliefs: (a) they do not believe they have the skills to do well and are afraid to try and fail, (b) they do not see the work they are being asked to do as meaningful, or (c) they believe the “deck is stacked against them” and that any effort they put forth will be thwarted. When any one of these beliefs exists, students tend not to perform well. Although each of three attitudes is important, it is their interaction that results in engagement and performance. Motivated students feel good about their abilities, find the tasks in which they are engaged meaningful, and feel supported and appreciated in their environment. When these three areas are measured, the lowest scoring area is often the single best predictor of achievement and satisfaction levels (Siegle, McCoach, & Shea, 2014). In other words, students who are motivated and achieve tend to believe they have the skills to do well (self-efficacy), find the work meaningful (goal valuation), and view their environment as supportive (environmental perceptions). The intensity of the attitudes in the three areas need not be the equally strong; however, attitudes must be positive in each area. Ultimately, the three attitudes direct a resultant behavior (self-regulation) that results in achievement. Any one of the three attitudes, however, can result in less self-regulation and engagement (Siegle, 2013).

PROMISING PRACTICES

Interventions designed to reverse underachievement generally fall into two categories: counseling and instructional interventions (Butler-Por, 1993; Dowdall & Colangelo, 1982). Fong et al. (2014) conducted a meta-analysis of 53 research studies designed to reverse underachievement with gifted students. They examined improvements in achievement and psychological functioning. Overall, they found that interventions moderately improve achievement and psychological functioning by a quarter of a standard deviation. Interventions were more effective for elementary, middle, and high school students and less effective for college students. The strongest effects were for elementary

and middle school students. Interventions with a motivational focus and that instill value of learning were most effective at improving achievement. Improving grades was more difficult than improving achievement tests, task performance, or teacher-rated performance. The researchers noted,

interventions that focused on motivation (particularly students' perceived value of learning) were most effective for improving achievement outcomes, while those that focused on students' attributions, self-beliefs, and self-regulation were most effective for evoking change in psychological outcomes. (Fong et al., 2014, p. 15)

The most well-known interventions for gifted students established part-time or full-time special classrooms for gifted underachievers (e.g., Butler-Por, 1993; Fehrenbach, 1993; Supplee, 1990; Whitmore, 1980). In these classrooms, educators alter the traditional classroom organization: there is a smaller student–teacher ratio, teachers create less-conventional types of teaching and learning activities, teachers forego grades, teachers give students some choice and freedom in exercising control over their atmosphere, students are encouraged to use different learning strategies, and there is a focus on improving students' self-worth and self-concept. Whitmore (1980) designed and implemented a full-time program for gifted elementary underachievers, and Supplee (1990) instituted a part-time program for gifted elementary underachievers. Both programs stressed the importance of addressing affective education, as well as the necessity of creating student-centered classroom environments.

Students who find school tasks meaningful and valuable are more likely to achieve (Landis & Reschly, 2013; Rubenstein et al., 2012). Even if students believe they have the skills to do well in school, they will not complete schoolwork if they do not see it as meaningful. Many gifted students do not see the work they are doing in school as meaningful for several reasons. They may already know much of what is being presented to them (Reis et al., 1993). Generally, gifted students can process information faster and at a much higher level than other students (Davis, Rimm, & Siegle, 2011). They may

also find the work they are given is not intellectually stimulating (McCoach & Siegler, 1999). They also often have specific passion areas they enjoy exploring (Renzulli & Reis, 1997), but are seldom given opportunities to pursue their interests in school. Baum et al. (1995) reversed underachievement when they provided opportunities for students to explore personal interests and create authentic products and services by working on projects in a manner similar to practicing professionals (Renzulli & Reis, 1997). On the basis of their work, Fredricks et al. (2010) recommended similar activities for gifted students. Traditional school settings, as compared with gifted and advanced classes, often undermine rather than support academic passion (Fredricks et al., 2010) by failing to take students' interests into account. Garn, Matthews, and Jolly (2010) found a majority of parents of gifted students viewed the motivational climate at school as contributing to motivation issues they faced with their children. These parents saw classroom practices such as lack of challenge and meaning in school assignments as barriers to their children's academic motivation.

All students, including gifted students, enjoy learning and do not want to be bored in school. However, gifted students often equate lack of challenge with boredom (Gallagher, Harradine, & Coleman, 1997). As Kanevsky and Keighley (2003) noted, "Learning is the opposite of boredom and learning is the antidote to boredom" (p. 20). These researchers also found that gifted high school students sought five C's for their learning experience: control, choice, challenge, complexity, and a caring teacher. They sought some control or self-determination, which enabled them to have choices. These choices involved enhancing the "relevance of the content and connections between the curriculum, their interests, and real world experiences" (p. 23). It also involved creating more challenge with higher level thinking, a quicker pace, and experience with authentic material. These combined for a complexity that included "rich, messy content, processes that involved high level thinking and questioning, their emotions and interests, opportunities to develop sophisticated products using the resources of a professional and opportunities to work in professional contexts" (p. 24). A *caring*

teacher could keep students engaged when the other C's were not present.

Wigfield and Eccles (2000) have devoted considerable effort to examining meaningfulness and goal valuation; they developed the expectancy-value theory. This theory describes student motivation as a product of students' valuation of a task and expectations of success. With respect to task valuation, Wigfield and Eccles proposed that students are motivated by a task associated with high attainment value (i.e., the importance of doing well on a specific task), high intrinsic value (i.e., the enjoyment individuals get when completing a task), high utility value (i.e., the usefulness of the task for future goals), and a moderately low cost (i.e., what individuals have to give up to succeed with or engage in a task). On the basis of this work, intellectually stimulating tasks, tied to students' interests, that provide students with new knowledge with minimal repetition and limited evaluative judgements should be effective with gifted underachievers.

Perhaps no one has written more about gifted underachievers than Sylvia Rimm. Although much of her work is anecdotal and based on case studies from her clinical practice (Rimm, 2008), her strategies have been effective in case after case (Davis et al., 2011). The trifocal model, which has been successful in about 80% of the clinic cases that use it (Rimm, 2003), typically requires about 6 months to turn around underachievement (Rimm, 2008). The underlying principle of the model is that underachievement behaviors are learned, and therefore can be unlearned. The model's name is derived from the three-way focus placed on the student, the home, and the school. The key component is coordinated collaboration between family and school in reversing underachievement and helping students feel good about themselves by implementing six steps:

1. Assess students' skills, abilities, reinforcement contingencies, and types of underachievement.
2. Communicate the results of the assessment to parents and teachers, and communicate support to students, rather than blame, while continually monitoring students' progress through school and home communications.

3. Change the expectations of parents, teachers, peers, siblings, and students to say students have the ability to achieve.
4. Locate an appropriate, achieving role model.
5. Correct any skill deficiencies—some might have developed because of the underachievement.
6. Modify home and school reinforcements that support underachievement.

SUMMARY AND CONCLUSIONS

Underachievement is a complex phenomenon, and there will never be a single intervention that reverses academic underachievement of all gifted students (Ritchotte, Rubenstein, & Murry, 2015). Some students naturally turn low achievement around with maturation. Others flourish when they have a chance to pursue a passion area. Some students reverse their underachievement as the result of a caring teaching or significant mentor. Some reverse underachievement when they move to a healthier environment. Reversing underachievement is difficult (Peterson, 2001), and the later an intervention is implemented, the lower its chance of success (Fong et al., 2014). Therefore, it is imperative that educators, psychologists, and researchers focus on prevention and early intervention of underachievement (McCoach, Newton, Siegle, Baslanti, & Picho, 2016).

Whitmore (1986) cautioned, “The final choice, obviously, is the child’s; he or she must want to change and believe effort will be rewarded by sufficient success and personal satisfaction” (p. 69). By encouraging young people to recognize and develop their talents, we move humanity forward. This is important for two reasons. First, the nation and the world will benefit from what gifted individuals accomplish. Second, and perhaps more important, even if these individuals do not become accomplished scientists or best-selling authors, they lead happier and more enriched lives when they are allowed to pursue their interests and develop their talents. “By helping students recognize that they have the skills to do well, by making their learning experiences meaningful, and by providing a supportive environment, we move students toward appreciating their gifts and talents and fulfilling their potential” (Siegle, 2013, p. 148).

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