Reversing Underachievement: Can We Tap Unfulfilled Talents in Hong Kong?

David W. Chan
Department of Educational Psychology
The Chinese University of Hong Kong

The issue of underachievement as unfulfilled talent is discussed through briefly reviewing the problems and difficulties in definition, and the etiological and contributing factors of individual, family and school as they apply to the Hong Kong setting. Two approaches, the TRIFOCAL model and the prism metaphor or creative productivity approach are introduced as promising leads in intervention for reversing underachievement. It is argued that educational research should focus on underachievement as a priority issue, as reversing underachievement may be our treatment of choice for helping the highly able (for "ba-jian") and the less able or at-risk (for "bu-di").

Key words: underachievement; talent identification; talent development

The concern for the problem of talent waste has received great impetus after British colonial Hong Kong was changed into a Special Administrative Region of China in 1997, when a rapidly changing society faced with technological and social problems became increasingly aware of the need to make

Correspondence concerning this article should be addressed to David W. Chan, Department of Educational Psychology, Faculty of Education, The Chinese University of Hong Kong, Shatin, N. T., Hong Kong.

better use of its entire human resources. This societal concern has been translated into a search for ways of discovering and identifying talented individuals, and helping these individuals develop their specific talents.

Within the school system, the interest in talent identification and development is reflected in the education reform movement for promoting excellence and quality education. Inevitably, such an interest also serves to focus attention on academic underachievement, the discrepancy that frequently exists between intellectual ability and actual school performance of students. From a broader perspective, the problem of academic underachievement and the associated problem of school dropouts may combine to reflect the rising anti-intellectualism among Hong Kong youths (Rudowicz & Cheung, 1999), and appears to go against the long-held conception of the Chinese valuing of effort, endurance, and hard work (Hau & Salili, 1996). In looking beyond performance to potential, it is increasingly recognized that academic underachievement is a serious psychological, educational and social problem. This problem creates damage to the particular students who fail to reach full development, and to society that is deprived of the students' possible contributions.

The question why some children of high or even superior intellectual ability fail to reach satisfactory academic achievements has puzzled and even frustrated educators for decades. In relation to the research on giftedness, investigators in gifted education and talent development have attempted to grapple with the question (e.g., Hollingworth, 1926; Rimm, 1995; Terman, 1925; Terman & Oden, 1947; Whitmore, 1980). Terman and Oden (1947), for example, compared 150 men "most successful" in their occupations with 150 men who were "least successful" from the original Terman sample through interviewing these men and their families and through retrospective analyses of their school records 20 years earlier. They identified some personality variables that appeared to characterize those who failed to realize their potential. These characteristics include an inability to persevere, a lack of integration toward goals, a feeling of inferiority, and a lack of self-confidence. They further speculated that motivational

and coping skills might explain why some children of superior intellectual abilities fail to realize their full potential. Subsequent studies have provided some evidence that supported the association between motivational problems and underachievement (e.g., Butler-Por, 1987; Rimm, 1997; Whitmore, 1980). What is also alarming is that the literature also indicated that many children of high ability not only fail to reach the appropriate level of their own ability in their schoolwork but often fail to attain the level reached by the majority of their peers.

Defining Underachievement: Problems and Difficulties

While underachievement is generally considered to be unfulfilled potential, its definition is not simple. The difficulties in arriving at a clear definition are even suggested as reasons accounting for the failure to arrive at solutions to the problem of underachievement (Gowan & Torrance, 1972). The gifted underachiever, for example, is often defined as one who achieves below his potential, where potential is defined in terms of IQ and achievement in terms of teacher grades or achievement tests (Durr, 1964), or one who is not accomplishing at a level commensurate with his or her intellectual ability (Bricklin & Bricklin, 1967), or one who not only fails to achieve the academic level of which he or she is capable, but is often also found to be lagging behind the achievement levels of the contemporaries of average ability (Raph, Goldberg, & Passow, 1966).

Recognizing that the potential of the underachiever cannot be adequately defined, researchers have formulated different operational definitions. Shaw (1964) defines an underachiever as one who is in the upper 25% of his or her class with respect to intellectual ability and falls below the class average with respect to grades. Tolor (1969) defines underachievement in terms of ability in relation to predicted achievement – one standard error of estimate below expectance based on IQ. However, it is understood that definitions based solely on IQ are inadequate, considering the expanding multidimensional concept of giftedness relating to high abilities in different domains (Gardner, 1983; Guilford, 1967, 1988; Sternberg & Davidson, 1986). Thus,

some investigators have argued that the definition of underachievement among gifted students should include not only achievement below expected performance in school subjects, but also achievement below expectation in expressed talent potential and productivity beyond academic achievement (Khatena, 1992). Nonetheless, the issues of defining underachievement or academic underachievement, and the procedures for identifying underachievers and gifted underachievers are problems that need to be tackled first and foremost in any serious studies of underachievement in Hong Kong and elsewhere.

Exploring Etiology: Student, Family, and School

Although a holistic knowledge of underachievement has yet to emerge, there is now some relative consensus among educators regarding the factors that contribute to the problem. School, family, and individual child characteristics influence the development of underachievement in students and could each become the focus of intervention for this problem (Baker, Bridger, & Evans, 1998; Butler-Por, 1993; Davis & Rimm, 1998).

Individual Factors

Based on the medical model and the individual difference approach in psychology and education, underachievement is attributed to motivational, emotional or behavioral problems within the student. The most obvious ones are school readiness and poor attitudes toward schooling, and low motivation to cooperate with conventional schooling (Seeley, 1993). In addition, deficits in study and organization skills on the part of the student might also contribute to underachievement (Rimm, 1988).

Among the host of variables implicated for underachievement, self-concept, especially self-concept related to intellectual and academic domains, is perhaps most widely studied, as gifted underachievers usually evidence poorer self-concepts than achieving gifted and regular students (e.g., Van Boxtel & Monks, 1992). Other personality and temperament variables found to be associated with underachievement include a fear of failure and perfec-

tionism (Rimm, 1988; Adderholt-Elliott, 1991), emotional sensitivity and stress (Freeman, 1994), a diminished locus of control (Laffoon, Jenkins-Friedman, & Tollefson, 1989), and other mental health problems such as depression (Whitmore, 1980). However, it is difficult to determine, based on the results of correlation studies, whether poor self-concept is a precursor to or a result of underachievement and failure experiences (e.g., Whitmore, 1980). Similar criticisms can be applied to the personality and temperament variables implicated in underachievement (Gallagher, 1991; Gonzalez & Hayes, 1988).

While these factors implicated for underachievement in Western countries might apply to Chinese students in Hong Kong, there have been few studies that focus on underachievement. Rather, studies on Chinese students generally document academic success (e.g., Biggs, 1996; Chen, Lee, & Stevenson, 1996; Hau & Salili, 1996). Future studies on underachievement of Hong Kong students therefore need to reconcile the differences.

Family Factors

In contrast to the intrapsychic or child-deficit approach, a family systems perspective views behavior as influenced by relationships and interactions with others in the family context (Fine, 1992). Accordingly, underachievement might derive from inadequate support provided to the child by the family. Research studies have indicated that such inadequacy could arise from a number of factors in families of gifted underachievers. One factor relates to the family structure, which are often characterized by disorganization and unclear guidelines about behavior, including academic performance (Rimm & Lowe, 1988). Another factor is a lack of cohesion in the home atmosphere or emotional climate (Albert, 1978), and family relations could be conflicting (Colangelo & Dettmann, 1983; Olszewski, Kulieke, & Buescher, 1987). In these families, inconsistent parental expectations and a lack of parental agreement on parenting are not uncommon, as are mixed messages regarding the value of achievement and the modeling of achievement behavior (Rimm, 1995; Rimm & Lowe, 1988). In addition, independent

dence and risk-taking are rarely fostered (Gurman, 1970), and self-expressiveness and communication are not encouraged or facilitated (Raph, Goldberg, & Passow, 1966).

There are no strong reasons to assume that these family pathological factors do not apply to Hong Kong families, despite that studies have consistently indicated that Chinese families value achievement and hard work, and parental styles are controlling and restrictive (e.g., Chao & Sue, 1996). The paradox of the academic success of the Chinese student needs to be resolved, and the claims that Chinese students succeed in school despite their parents' practices and not because of their parents need to be more thoroughly investigated (Steinberg, Dornbusch, & Brown, 1992).

School Factors

The family systems thinking can be easily expanded into an ecosystemic perspective to include interactions within the context of school as potential determinant of behavior. Schools may fail in a number of ways to provide adequate support for gifted students' potential, thus contributing to underachievement among gifted students. Broadly speaking, it might be a mismatch between the needs of the student and the school environment. Specifically, the mismatch might be between the students' learning styles and pedagogical approaches or inadequate academic programming. These schooling variables such as inflexible curricular requirements, age-grouping, and lack of acceleration opportunities affect student motivation, causing students to become disaffected from school and withdraw from participation, leading to underachievement (Fehrenbach, 1993; Redding, 1990; Whitmore, 1989). On the other hand, school may also present specialized academic skills demands to late primary and junior secondary students. These academic skills such as time management, study skills, and systematic problem solving are skills beyond rote memorization, and these skills may be underdeveloped among gifted students who have been unchallenged and have experienced seemingly effortless academic success in the early primary years (e.g., Baker et al., 1998).

Unintentionally, teacher expectations may also influence student achievement through failing to recognize talent, anticipating low performance from students, or holding stereotypes about gifted students with expectations of unreasonably high standard of performance (Kolb & Jussim, 1994). Peers may also influence achievement status, especially in late primary and junior secondary school. The heightened awareness of the prevailing norms within peer groups and a desire to conform to group norms may lead gifted students to underachieve to deflect attention away from their uniqueness (e.g., Clinkenbeard, 1991).

While the Hong Kong education system, its school curriculum and public examinations have been blamed for a variety of school problems, including behavioral and emotional problems of students (e.g., Lee, 1991), studies that explicitly focus on the influence of the school ecosystem on underachievement are urgently needed. Another area that warrants further investigation is peer influence (Steinberg et al., 1992), especially considering the possible anti-intellectual attitudes as suggested in the recent study by Rudowicz and Cheung (1999).

Searching for Intervention Approaches

Notwithstanding the relative consensus regarding the etiology of contributing factors to underachievement, evidence regarding effective intervention strategies is still inconsistent and inconclusive, and finding an approach that enjoys success in reversing the pattern of underachievement has remained somewhat elusive. However, there is much agreement that intervention should begin early after early identification in the primary school year (Shore, Cornell, Robinson, & Ward, 1991).

Some promising leads have been made in helping gifted underachievers with family therapy or group counseling with emphasis on peer support (e.g., Colangelo, 1997; Rimm, 1997). Focusing on the student and/or the home environment as the primary causes of underachievement, this family counseling approach depends heavily on the long-term commitment by the family and the availability of appropriate counseling services. Another ap-

proach is the educational approach, which focuses on the school as the primary cause of underachievement. However, it is said that typical educational interventions have generally not enjoyed widespread success in reversing underachievement. This lack of success has been attributed to the misplaced emphases of these approaches on the negative behaviors of underachieving students, with the assumption that underachieving students are motivated to improve and are self-disciplined. Thus, underachieving students are made to enroll in study skills courses (e.g., Crittenden, Kaplan, & Helm, 1984; Hastings, 1982; Scruggs & Cohn, 1983), or in full-time special classes (e.g., Whitmore, 1980; Butler-Por, 1987), disregarding that they are discouraged learners who need encouragement rather than discipline or more time on task to overcome their failure.

Currently, promising approaches of interventions are generally broadspectrum and targeted at the three systems of individual, family, and school. Specifically, Rimm (1995, 1997) suggests a TRIFOCAL model in six steps: (1) assessing the skills, abilities, reinforcement contingencies, and types of underachievement; (2) facilitating communication between parents and teachers; (3) changing the expectations of important others; (4) identifying achievement models; (5) correcting skill deficiencies; and (6) modifying reinforcements at home and at school. Rimm (1997) has claimed success with many different types of underachievement as the treatment model involves the student and the collaboration of school and family.

In another promising approach, Baum, Renzulli and Hebert (1995) make available a complex set of enrichment experiences to meet the specific needs of underachievers. These enrichment activities allow students to become producers of creative products through the collection of raw data, advanced level problem-solving techniques, and the application of research strategies or artistic procedures used by firsthand investigators within various fields of studies. They select the prism metaphor to describe and focus on the transformation that occurs in underachievers in their deviation from the pattern of underachievement. Regardless of the causes of underachievement, the change process in this approach is supported by a positive relationship

with the teacher, the use of self-regulation strategies, the opportunities to investigate personal issues of underachievement, the work in an area of interest, and the interaction with an appropriate peer group.

The TRIFOCAL model and the creative productivity approach are by no means mutually exclusive approaches. Their applications and adaptations in the Hong Kong setting, however, need to be carefully examined. It is encouraging and reassuring that the TRIFOCAL model appears to fit nicely into the whole school approach to guidance, and the creative productivity or prism metaphor approach may become an integral part of the school-based gifted programs designed to be implemented widely in Hong Kong schools.

Promoting Research that Informs Practice

While popular conceptualizations often drive educational and psychological interventions, empirical research that informs decision-making and theory-based interventions is urgently needed. The confusion and lack of consensus about the definition of underachievement and the associated criteria for identifying underachievers delineates clearly an area for investigation. Even though the general notion of a discrepancy between intellectual functioning and academic performance is generally endorsed by investigators, the diversity arising from the use of different instruments to operationalize the discrepancy will give rise to diverse criteria and hence different groups of underachievers using different criteria. Perhaps, multiple convergent criteria based on standardized instruments and observation from parents and teachers will help reduce under-identification of true underachievers and different types of underachievers, and initiate the tapping of unfulfilled and hidden talents among students.

Considering the diverse factors from individual, family and school contributing to the phenomenon of underachievement, it is obvious that underachievers do not constitute a homogeneous group, and that effective treatments that best serve these students will vary. Efforts to distinguish different causal pathways to underachievement with correspondingly different

treatment approaches warrant careful studies. Nonetheless, the broad-spectrum approaches such as Rimm's TRIFOCAL model and the prism metaphor approach offer promising leads worthy to be further pursued and studied as they are applied in Hong Kong schools. If the prism metaphor approach could become an integral part of school-based programs, future studies should aim to explore whether specific types of underachieving students are positively affected by this enrichment programming, and whether other approaches such as the TRIFOCAL model are needed to help other types of underachieving students.

In summary, reversing underachievement should be made a priority issue along with talent identification and development. Efforts at reversing underachievement will precisely match our efforts to meet the special needs of students in the whole spectrum of functioning from the highly able (to help them further develop their potential or "ba-jian") to the less able or atrisk (to help them realize their potential or "bu-di"). Reversing underachievement could be our stone that kills the twin birds of "ba-jian" and "bu-di." Thus, it is anticipated that through rigorous research and practice, comparing different intervention approaches with reference to short-term and long-term outcomes, a knowledge base will eventually be built to help tap unfulfilled talents in Hong Kong.

References

- Adderholt-Elliott, M. (1991). Perfectionism and the gifted child. In M. Bireley & J. Genshaft (Eds.), *Understanding the gifted adolescent*. New York: Teachers College Press.
- Albert, R. (1978). Observations and suggestions regarding giftedness, familial influence and the achievement of eminence. *Gifted Child Quarterly*, 28, 201-211.
- Baker, J. A., Bridger, R., & Evans, K. (1998). Models of underachievement among gifted preadolescents: The role of personal, family, and school factors. *Gifted Child Quarterly*, 42, 5-15.
- Baum, S.M., Renzulli, J. S., & Hebert, T. P. (1995). Reversing underachievement: Creative productivity as a systematic intervention. *Gifted Child Quarterly*, 39, 224-235.

- Biggs, J. B. (1996). Learning, schooling, and socialization: A Chinese solution to a Western problem. In S. Lau (Ed.), *Growing up the Chinese way* (pp. 147-167). Hong Kong: Chinese University Press.
- Bricklin, B., & Bricklin, P. (1967). Bright child, poor grades. New York: Delacorte.
- Butler-Por, N. (1987). *Underachievers in school: Issues and intervention*. New York: John Wiley & Sons.
- Butler-Por, N. (1993). Underachieving gifted students. In K. A. Heller, F. J. Monks, & A. H. Passow (Eds.), *International handbook of research and development of giftedness and talent* (pp. 727-741). Oxford, England: Pergamon.
- Chao, R. K., & Sue, S. (1996). Chinese parenting influence and their children's school success: A paradox in the literature of parenting styles. In S. Lau (Ed.), *Growing up the Chinese way* (pp. 93-120). Hong Kong: Chinese University Press.
- Chen, C., Lee, S., & Stevenson, H. W. (1996). Academic achievement and motivation of Chinese students: A cross-national perspective. In S. Lau (Ed.), *Growing up the Chinese way* (pp. 69-91). Hong Kong: Chinese University Press.
- Clinkenbeard, P. R. (1991). Unfair expectations: A pilot study of middle school students' comparisons of gifted and regular classes. *Journal for the Education of the Gifted*, 15, 56-63.
- Colangelo, N. (1997). Counseling gifted students: Issues and practices. In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (2nd ed.; pp. 353-365). Boston: Allyn & Bacon.
- Colangelo, N., & Dettmann, D. (1983). A review of research on parents and families of gifted children. *Exceptional Children*, 50, 20-27.
- Crittenden, M. R., Kaplan, M. H., & Helm, J. K. (1984). Developing effective study skills and self-confidence in academically able young adolescents. *Gifted Child Quarterly*, 28, 25-30.
- Davis, G. A., & Rimm, S. B. (1998). *Education of the gifted and talented* (4th ed.). Boston: Allyn & Bacon.
- Durr, W. H. (1964). The gifted student. New York: Oxford University Press.
- Fehrenbach, C. R. (1993). Underachieving gifted students: Intervention programs that work. *Roeper Review*, 16, 88-90.
- Fine, M. (1992). A systems-ecological perspective on home-school intervention. In M. J. Fine & C. Carlson (Eds.), *Handbook of family-school interventions: A systems perspective* (pp. 1-17). Boston: Allyn & Bacon.

Freeman, J. (1994). Some emotional aspects of being gifted. *Journal for the Education of the Gifted*, 14, 221-233.

- Gallagher, J. J. (1991). Personal patterns of underachievement. Special issue: Update: Underserved gifted. *Journal for the Education of the Gifted*, 14, 221-233.
- Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York: Basic Books.
- Gonzalez, J., & Hayes, A. (1988). Psychosocial aspects of the development of gifted underachievers: Review and implications. *The Exceptional Child*, 35, 39-51.
- Gowan, J. C., & Torrance, E. P. (1972). Educating the ablest. Itasca, IL: Peacock.
- Guilford, J. P. (1967). The nature of human intelligence. New York: McGraw-Hill.
- Guilford, J. P. (1988). Some changes in the structure of the intellect model. *Educational and Psychological Measurement*, 48, 1-3.
- Gurman, A. (1970). The role of the family in underachievement. *Journal of School Psychology*, 8, 48-53.
- Hastings, J. M. (1982). A program for gifted underachievers. *Roeper Review*, 4, 42.
- Hau, K. T., & Salili, F. (1996). Achievement goals and causal attributions of Chinese students. In S. Lau (Ed.), *Growing up the Chinese way* (pp. 121-145). Hong Kong: Chinese University Press.
- Hollingworth, L. (1926). *Gifted children: Their nature and nurture*. New York: MacMillan.
- Khatena, J. (1992). Gifted: Challenge and response for education. Itasca, IL: Peacock.
- Kolb, K. J., & Jussim, L. (1994). Teacher expectations and underachieving gifted children. *Roeper Review*, 17, 26-30.
- Laffoon, K. S., Jenkins-Friedman, R., & Tollefson, N. (1989). Causal attributions of underachieving gifted, achieving gifted, and nongifted students. *Journal for the Education of the Gifted*, 13, 4-21.
- Lee, W. O. (1991). Student behavioural problems revisited: the need for curriculum re-orientation and values education. In N. Crawford & E. K. P. Hui (Eds.), *The curriculum and behaviour problems in schools*. Hong Kong: Faculty of Education, University of Hong Kong.
- Olszewski, P., Kulieke, M., & Buescher, T. (1987). The influence of the family environment in the development of talent: A literature review. *Journal for the Education of the Gifted*, 11, 6-28.

- Raph, J. B., Goldberg, M. L., & Passow, A. H. (1966). *Bright underachievers*. New York: Columbia University Teachers College Bureau of Publications.
- Redding, R. E. (1990). Learning preferences and skill patterns among underachieving gifted adolescents. *Gifted Child Quarterly*, *34*, 72-75.
- Rimm, S. B. (1988). Identifying underachievement: The characteristic approach. *Gifted Child Today, 11*, 50-54.
- Rimm, S. B. (1995). Why bright kids get poor grades and what you can do about it. New York: Crown.
- Rimm, S. B. (1997). Underachievement syndrome: A national epidemic. In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (2nd ed., pp. 416-434). Boston: Allyn & Bacon.
- Rimm, S. B., & Rowe, B. (1988). Family environments of underachieving gifted students. *Gifted Child Quarterly*, 32, 353-359.
- Rudowicz, E., & Cheung, W. F. (1999). Academic brilliance: Through the eyes of Hong Kong adolescents. *International Journal of Adolescence and Youth*, 7, 279-296.
- Scruggs, T. E., & Cohn, S. J. (1983). A university-based summer program for a highly able but poorly achieving Indiana child. *Gifted Child Quarterly*, 27, 90-93.
- Seeley, K. R. (1993). Gifted students at risk. In L. K. Silverman (Ed.), *Counseling the gifted and talented* (pp. 263-276). Denver: Love Publishing.
- Shaw, M. C. (1964). Definition and identification of academic underachievers. In L. French (Ed.), *Educating the gifted* (pp. 139-155). New York: Holt, Rinehart & Winston.
- Shore, B. M., Cornell, D. G., Robinson, A., & Ward, V. S. (1991). Recommended practices in gifted education: A critical analysis. New York: Teachers College, Columbia University.
- Steinberg, L., Dornbusch, S., & Brown, B. (1992). Ethnic differences in adolescent achievement: An ecological perspective. *American Psychologist*, 47, 723-729.
- Sternberg, R. J., & Davidson, J. E. (1986). *Conceptions of giftedness*. New York: Cambridge University Press.
- Terman, L. M. (1925). *Genetic studies of genius I*. Palo Alto, CA: Stanford University Press.
- Terman, L. M., & Oden, M. H. (1947). *Genetic studies of genius II*. Palo Alto, CA: Stanford University Press.

Tolor, A. (1969). Incidence of underachievement at the high school level. *Journal of Educational Research*, 63, 63-65.

- Van Boxtel, B. W., & Monks, F. J. (1992). General, social and academic selfconcepts of gifted adolescents. *Journal of Youth and Adolescence*, 21, 169-187.
- Whitmore, J. R. (1980). *Giftedness, conflict, and underachievement*. Boston: Allyn & Bacon.
- Whitmore, J. R. (1989). Understanding a lack of motivation to excel. *Gifted Child Quarterly*, *33*, 66-69.