

## **Talent Identification and Development in Education**

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Talents emerge from general ability as a confluence of genetic dispositions, home and school experiences, and students' unique interests and learning styles. Gagné (1985) delineated a general pattern of talent development in youth, and other researchers (Bloom, 1985; Gagné, 1985; Keating, 1979; Mackinnon, 1978; Tannenbaum, 1983; Taylor, 1978; and Reis & Renzulli, 1986) have explicated the nature and development of talents. Our own model is represented in Figure One on the following page. We see genetic factors as determining potential strengths and setting limits to the extent of talent development. Those who are likely to go on to high level talent development will exhibit precocity early on. Abilities, aptitudes, and intelligences emerge as a result of experiences, motivations, and styles. Creative insight skills (Davidson & Sternberg, 1984), a functional knowledge base (Glaser, 1984), and metacognitive creativity skills (Beyer, 1987) provide the final underpinning for the emergence of specific talents.

Aside from the philosophical and

psychological soundness of the talent conception, identifying and developing talent in all children frees us from the problems of identification of "the gifted few" and possible under-representation of special populations as well as the stigmatizing effects of the gifted label. It also forces us instead to: (1) focus our instructional expertise on the search for talent and, (2) on fostering talent in all youth, not just the labelled few. In the process of identifying talent in all children we should also become aware of those who have exceptionally high talent potential. Thus, in a sense we have wedded two programs, gifted education and talent development, into one, more potentially effective and acceptable program. Educators currently working in programs for the gifted should have much of the needed expertise to effect the combination, but other staff in schools can also be contributors to the new program.

"Talent development is the 'business' of our field, and we must never lose sight of this goal, regardless of the direction that reform efforts may take." This

insightful pronouncement by Renzulli and Reis (1991, P. 26) sets the stage for a major reconceptualization of gifted education and for our efforts to bring underserved populations to gifted education. It is certainly clear that large segments of some minority, economically disadvantaged, and culturally different populations are not represented in programs for the gifted and talented. The current approaches to identification and program services in the United States favor some groups and neglects others. The conception of giftedness used most often in programs for the gifted conceptualizes human abilities as synthesized in a general unitary ability called 'intelligence' or 'giftedness.' The identification process and the program services work well for the favored populations. However, an alternative conception, namely 'talents,' 'aptitudes,' or 'special intelligences' may serve us better in defining and nurturing high level abilities in both the underserved and the favored populations.

The concept of 'aptitude,' 'talent,' or 'special intelligences' suggests a more analytical and more diverse view of human abilities, abilities which may be nurtured, and aptitudes which are amenable to development. The concept

of giftedness which emerged beginning with the work of Terman (1925) and flourished in the United States following the Marland Report (1972) viewed giftedness as a fixed, unitary trait manifested dichotomously. That is, some youth or people have it, most do not. This concept also favored the view that giftedness is genetically determined. a view promoted by Terman's master titling of his series of research reports *Genetic Studies of Genius* (1925). Even though the Marland Report had delineated six types of giftedness, program developers for the most part adapted a unitary definition in which children were simply classified as gifted or not gifted.

In contrast to the unitary trait concept, it seems likely most youth have intellectual strengths, but those strengths are diverse. Starting early in the elementary grades some children show talent or aptitude in mathematics, others in verbal communication activities, and some in other talent domains. Later some will exhibit their budding talents in home economics, creative writing, learning a foreign language, or dramatics. There are wide differences among youth in both their aptitudes for these diverse areas and in their interest or motivation to pursue studies in them. Nurture and

nature operate simultaneously in that school, home, and community experiences seem to foster growth of the special talents, and they provide educational opportunities for the requisite skills associated with the talent area. 'Gifted' is a static concept. It is fixed. Talent and talent development are dynamic concepts in which individual students and their special abilities can grow and develop with nurturance.

Some youth demonstrate high or extremely high levels of special talent in relation to their ages. The child who reads at age three, the student who learns calculus in grade eight, the college freshman in science at age sixteen are all examples of youth whose talents are extremely advanced. These students exhibit precocious learning behavior. Others exhibit precocity in ways that do not so clearly show the grade level disparity. Students who show high levels of problem solving skills in a shop class, those who write excellent poetry in a high school English class, and student actors who exhibit extraordinary empathy with the characters they are portraying reveal special talents which traditionally have not been seen as manifestations of giftedness. Nevertheless, they are valuable indicators of potential

for high level achievement or accomplishment. Such talent indicators may appear in all youth (including minorities, the economically disadvantaged, and the culturally different).

School programs must undergo change from traditional conceptions of the gifted few which favor select subgroups or populations and concentrate efforts instead on finding and nurturing special talents and abilities among all youth. It is truly time for the new program *Talent Identification and Development in Education* (TIDE). TIDE will serve us much better as a way of meeting the special needs of diverse school populations, as an approach to talent development among all youth, and as a means to serving the needs of our society in the emerging technological age.

### **Definitions**

Talent is a complex of aptitudes or intelligences, learned skills and knowledge, and motivations-attitudes-dispositions, that predispose an individual to successes in an occupation, vocation, profession, art or business (Gardner, 1992). Aptitude refers to specific abilities. Intelligence(s) is

genetically determined ability or aptitude. Expertise is the capacity to function at a high level of proficiency within a domain of activity. Precocity is knowledge or skill in an individual at an age earlier than normal. Giftedness is a complex of intelligence(s), aptitudes, talents, skills, expertise, motivation, and creativity that lead the individual to productive performance in areas or domains or disciplines valued by the culture and time. Genius is giftedness which produces new conceptual frameworks that lead to paradigmatic shifts in a discipline, art form, profession, or field of business-economics.

### **Conceptions of Talent**

A number of researchers, theorists, program developers, and curriculum specialists in gifted education have proposed and used the concept of talent as a framework for studying and/or developing human abilities. Some have used the term very specifically while others have used it inter-changeably with giftedness.

Gardner proposed a new framework for conceptualizing human intelligences or talent based on a review of a wide

variety of psychological research (1983)

- 1) Linguistic - writer, poet
- 2) Spatial - sculptor, architect .
- 3) Musical - composer, musician
- 4) Bodily, Kinesthetic - athlete, dancer
- 5) Logical, Mathematical - scientist, mathematician
- 6) Intrapersonal - psychiatrist, counselor
- 7) Interpersonal - teacher, salesman

In personal communication, Gardner (1992) expressed indifference as to calling them talents or intelligence. They might best be seen as the early, more general forms of ability, highly genetically determined, that fine focus later in more specific vocations as shown in the list above after the original category name. Gardner also speaks of a "giftedness matrix" which emerges in youth as a combination of two or more of the intelligences, acquired knowledge, and skills, and interests-motivators. All are conditioned or developed by the range and nature of experiences available to the individual. The context for the development of talent begins in the family, extends to school and family, extends increasingly to peer influences,

then to the influences of experts and the culture, and finally to high powered influence form the domain or discipline in which one is emerging.

In a recent statement concerning gifted education and the school reform movement, Renzulli and Reis (1991) assert that "Talent development is the 'business' of our field, and we must never lose sight of this goal..." (P.35). This statement links well with the talent domains which can be inferred from the Renzulli et al., Scales for Rating the Behavioral Characteristics of Superior Students (1976):

1. Learning Characteristics
2. Motivational Characteristics
3. Creativity Characteristics
4. Leadership Characteristics
5. Artistic Characteristics
6. Musical Characteristics
7. Dramatics Characteristics
8. Communication Characteristics
  - Precision
9. Communication Characteristics
  - Expressiveness
10. Planning Characteristics

One of the most extensive efforts to clarify the concepts of giftedness and talent was presented by Gagné (1985).

He suggested (see Figure 2) that giftedness is most often associated with intellectual ability (g) while talent denotes more specific skills or aptitudes. He also reviewed the formulations of Cohn (1981) and Foster (1981), both of which proposed a social domain of talent, and recognized leadership and altruistic orientation as talents in the domain. Gagné concluded from his review and analysis of the concepts of giftedness and talent that general giftedness which manifests itself in four major domains (intellectual, creative, socioemotional, and sensori-motor) gives way, as children move through the school years, to specific talents, mediated by family, school, personality, interests, attitudes, and identification experiences. Talent emerges as the specific ability that will facilitate learning or development in a particular occupation or domain of occupations.

Feldhusen (1986), Koopmans-Dayton (1986), and Koopmans-Dayton and Feldhusen (1987) have presented evidence from research showing that vocational educators recognize giftedness and talents among youth enrolled in vocational classes in agriculture, business, trade-industrial, and home economics. Furthermore, teachers in

these areas identified the specific characteristics which they saw as evidence of special talent. These characteristics included such traits as highly skilled in designing and conducting projects, resourceful in finding sources of information and materials, and superior problem solving ability. This research showed that teachers in the vocational areas not only recognized (identified) youth with special talents but also provided special educational opportunities for them on an individualized basis.

Gardner's conception of multiple intelligences (1983) has been used as the base for the model educational program implemented in the Key School in Indianapolis: (1) logical-mathematical, (2) linguistic, (3) musical, (4) spatial, (5) bodily-kinesthetic, (6) interpersonal, and (7) intrapersonal.

These intelligences may be viewed as representing broad talent domains. Gardner and Hatch (1989) argued that "...the concept of intelligence has remained central to the field of psychology." Central, however, to the theory of multiple intelligences is the concept that here are multiple intelligences and each of the intelligences varies independently in individual, and individuals show unique

profiles of relative strengths and weaknesses among the seven intelligences. Pilot educational projects based on the theory of multiple intelligences have progressed to the point where Gardner and Hatch conclude that "...our programs with both older and younger children confirm that a consideration of a broader range of *talents* (our emphasis) brings to the fore individuals who previously had been considered unexceptional or even at risk for school failure." The theory and its application seem to support the talent conception presented in this paper, and we applaud the use of the terms "talent" in the quotation.

Again, overlapping with the several talent models reviewed so far is a framework reported by DeHaan and Kough in 1956 under the rubric of a system for identifying gifted and talented [our emphasis] students: (1) intellectual ability, (2) scientific ability, (3) leadership ability, (4) creative ability, (5) artistic talent, (6) writing talent, (7) dramatic talent, (8) musical talent, (9) mechanical skill, and (10) physical skills. The shift in terminology among "ability," "skills," and "talent" as well as their reference to giftedness reflects considerable uncertainty about the phenomena of human ability.

The work of DeHaan undoubtedly

influenced the framers of the Marland Report (1972) and its six categories of "giftedness:"

"Gifted and *talented* [our emphasis] are those ... with demonstrated achievement and/or potential ability in... (a) general intellectual ability, (b) specific academic aptitude, (c) creative or productive thinking, (d) leadership ability, (e) visual and performing arts, and (f) psychomotor ability."

While the field of gifted education embraced this definition of nearly two decades and echoed the overarching conception of "gifted and talented," prevailing practice adhered most of the time to the unitary conception of giftedness which is closely related to the g conception of general intelligence. There was also much criticism of the Marland Report categories (Renzulli, 1978) as representing non-parallel and overlapping conceptions of ability.

Much more recent is the conception of talent set forth by Bloom (1985) in his study of talent development. He proposed four distinct areas of talent: (1) athletic or psychomotor, (2) aesthetic, musical, and artistic, (3) cognitive or intellectual, and (4) interpersonal relations. Later the fourth area was dropped because of difficulty in finding definitions

or criteria for superior performance in that area. Within each of the first three areas two specific talents were selected for intensive research: (1) swimming and tennis in the athletics or psychomotor domain, (2) concert pianists and sculptors in the aesthetic -musical-artistic domain, and (3) research mathematicians and research neurologists for the cognitive-intellectual domain.

From the intensive case studies of the lives of talented people, Bloom (1985) concluded that talent potential is present in many children. Talent growth clearly can be facilitated by family and teachers, early recognition and nurturance is vital, and motivation is a crucial ingredient. He concludes: "All of this is to point to the enormous human potential available in each society and the likelihood that only a very small amount of this human potential is ever fully developed. We believe that each society could vastly increase the amount and kinds of talent it develops."

The conception of talent is also clearly present in the "talent search" projects growing out of the research and development of Stanley at Johns Hopkins University (1976, 1984). The Scholastic Aptitude Test, used as the testing instrument in talent searches,

yields scores for two broad areas of ability, verbal and quantitative scores and onto specific vocational aptitudes represented by one or more talents.

In conclusion, we would argue that the term "talent" should be used to denote the increasingly specialized aptitudes or abilities that develop in youth as a function of general ability, g. or intelligence, and of their educational experiences in home, school, and the broad community. Talent grows as youth develop specific skills, interests, and motivation. Increasingly the general talent domain defines a more specific occupation and increasingly merges with expertise. For some youth and adults talent and expertise will unite with divergent or creative abilities; they become the creators, innovators, inventors, composers, writers, architectural designers, theorists, or developers of new paradigms.

#### **A Proposal: Talent Identification and Development in Education (TIDE)**

From the review of conceptions of Talent we propose four general domains for talent development in schools, depicted in Figure 3: Academic-Intellectual, Artistic, Vocational-Technical, and Inter-

personal-Social.

These four domains should not be viewed as encompassing all talents. There are certainly many more. However, these four domains are especially useful at the middle and high school levels because they are correlates of subject matter areas, specific courses of instruction, and/or curricular and extracurricular school programs. Identification or talent search procedures already exist for most of these domains of talent, and the procedures can be applied as a part of the search for talent among all students, and just as identification of the gifted few.

There remains the problem, however, of matching youth talents to specific resources and activities that may foster or enhance talent growth and development. Teachers, counselors, and parents can do much to guide youth to appropriate resources and facilitate their use, but talented youth who are aware or becoming aware of their talent strengths should be involved in the search and matching process themselves. Treffinger (1986) and Betts (1986) have pioneered the concept of independent or autonomous learning. Feldhusen (1986) presented a planning model and instruments designed to help gifted and



talented youth in the process of planning for and selecting learning activities to foster their own talent development.

There is no single program model that will optimize a child's talent development. A variety of services and resources are needed to match the child's talent strengths and provide the nurturance for continuing growth of those talents. School programs can best be eclectic, using a variety of resources to meet the needs of talented youth. Talented youth themselves should increasingly be taught to recognize and understand their own talents, to join in the effort to find nurturing resources and activities, and to become independent or autonomous in guiding their own talent development.

### **Conclusion**

Talent Identification and Development in Education (TIDE) offers a conception of giftedness and talent that should replace older conceptions of "The Gifted Child." From both parents' and school's points of view the most important things to know are children's talent strengths of foci and how to nurture those talents to help children achieve to the highest level possible. To be sure, the school must

address the goals of educating children in all of the areas typically addressed by schools - in a sense, the basics. But the TIDE conception asserts that all or most children have some specific areas of talent strength or aptitude that should also be addressed. Some children have great talent potential which calls for even more powerful nurturance or educational interventions.

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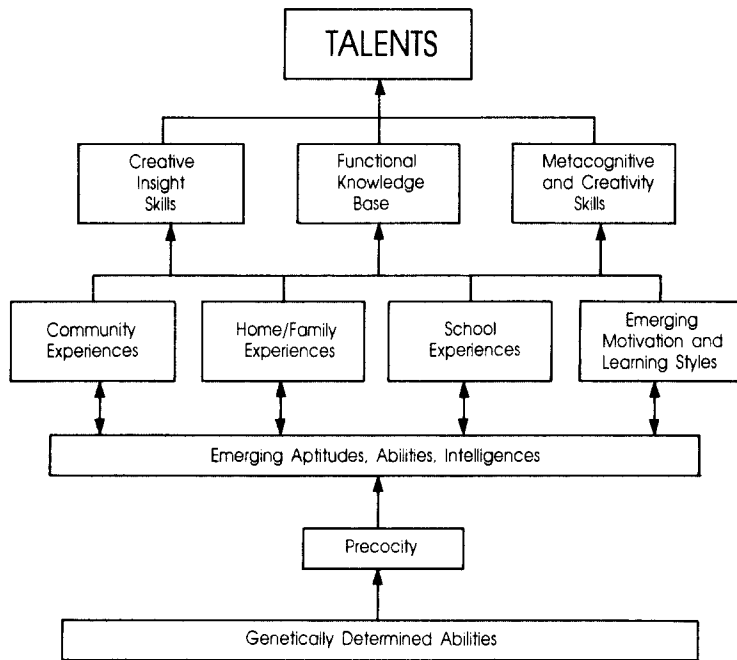
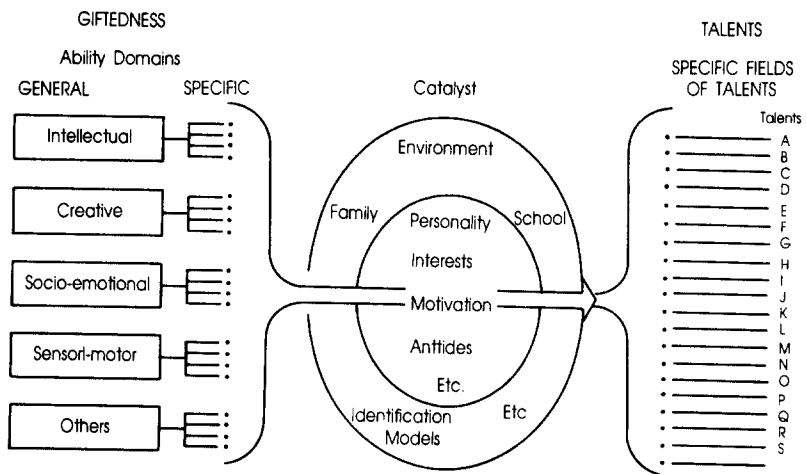


Fig. 1. Factors Influencing Talent Development



**Fig. 2. Giftedness and Talents**  
Gagné, 1985. p. 109, reproduced by permission

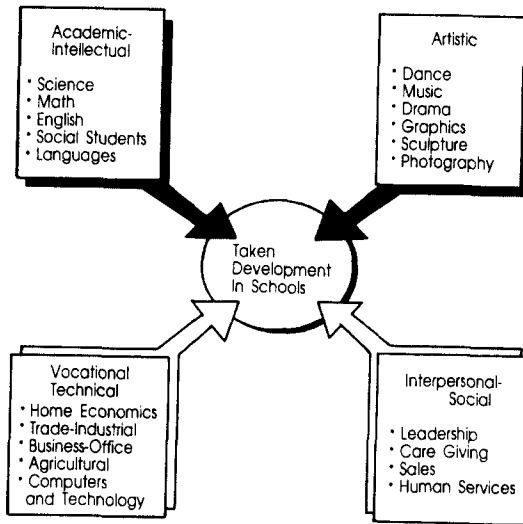


Figure 3. Talent Development in Schools