Over time, special programs for bright students have varied depending on available funding and changing definitions of what it means to be "gifted." Here, Dorothy A. Sisk, former director of the U.S. Office of Gifted and Talented and now Conn Chair Professor in Gifted Education at the College of Education at Lamar University, Beaumont, Texas, explores the ideas of the past and what they promise for the future.

The ebb and flow of support for gifted and talented students in recent years has been dramatic. In the last four decades, there have been several waves of interest in special education for these students, but each increase has been followed by a decline both in interest and in support.

Most educators agree that the quality of the future leaders of our society is directly related to the quality of the educational experiences provided for them. If you stop to consider what life would be like if there were no brilliant musicians, artists, athletes, writers, physicians, mathematicians, or biologists, you will realize how much society needs the contributions of its gifted and talented members. For no one is this more true than for the gifted and talented students in the visual and performing arts. They truly enrich our lives. Yet, in spite of the fact that society owes a great deal to them, public education has done relatively little to encourage their development.

Gary Davis and Sylvia Rimm summarized the state of gifted education quite well when they reported that parents and educators alike are becoming aware that tens of thousands of gifted and talented children and adolescents are sitting...
in classrooms with their talents unrecognized and their needs unmet. Many are bored and find school intolerable. Some gifted students feel pressured to hide their talents and skills from uninterested and unsympathetic peers. In fact, many give up school entirely and drop out when they are of legal age. Donald Nyquist (cited in Davis and Rimm) reported that a full 19 percent of the high school dropouts in New York State would be classified as gifted.

These dropouts can be described as underachievers—talented students who are unguided, uncounseled, and unchallenged. In addition, the widely circulated report by the National Commission on Excellence in Education, *A Nation at Risk* (1983), reported that more than half the population of gifted students did not match their tested ability with comparable achievement in school. As a nation, we cannot continue to ignore tomorrow’s promise—our gifted and talented children and youth. As James Gallagher aptly stated the problem, failure to help the handicapped child reach his potential is a personal tragedy for him and his family; failure to help the gifted child reach his potential is a societal tragedy.

**Early education efforts**

Education of the gifted began in the early American colonies in 1635 with the establishment of the Boston Latin Grammar School. Soon after, Harvard College was established in 1636, and both have continued to this day. Latin grammar schools primarily served the gifted in the first two hundred years of our history, training lawyers, ministers, and teachers, while the rest of society was provided with a basic education by the village church schools and dame schools, local homes in which women taught the rudiments of reading and writing. A system of two separate educations existed in the colonies: one for the gifted, another for the masses. Separate education was the rule until the nineteenth century, when the notion of the universal public school was introduced.

The irony is that if separate education had continued, there might not be the present need for and interest in educating the gifted and talented. Democracy as we know it in the United States, with its emphasis on equality and opportunity for free development, also might not have evolved. Schools’ efforts to provide opportunities for all students show wide discrepancies, but as long as the public school system must provide for a diverse school population, the challenge to meet gifted students’ needs will exist.

**Terman’s influence**

In reviewing the early educational efforts on behalf of the gifted, the genius of Lewis Terman cannot be ignored. He was a major catalyst for education for the gifted and devoted his life to the study of bright students. Terman’s life work, *Genetic Studies of Genius*, compiled between 1925 and 1959, is a remarkable and valuable collection of information on gifted students. Terman’s project was funded in 1921 for twenty thousand dollars, and more than a quarter of a million dollars was raised over thirty-four years to fund the study, much of the money deriving from Terman’s royalties from the sale of the Stanford-Binet Intelligence Scale, which he developed. The study included 1,528 gifted children, who were identified at the age of nine. Those subjects who are still alive continue to be studied at their current age of seventy-six. Terman’s major findings are that:

- The gifted differ among themselves in many ways.
- The stereotypes of the gifted child as puny, asocial, or pre-psychotic are unfounded.
- The most intelligent child in a class is often the youngest.
- Superiority in intelligence is maintained through adulthood.
- Instructional acceleration at all levels is beneficial.
- Mental age continues to increase into middle age.

Terman’s classic work continued under the direction of Stanford University and Robert and Pauline Sears. Since Robert Sears’s death in 1989, the study has been directed by Stanford University staff and Pauline Sears. Three major observations about this early study are appropriate for our historical review: (1) intelligence was assumed to be a single-faceted phenomenon; (2) environmental factors such as socioeconomic status were not accounted for in assessing the abilities of minority group members; and (3) there was no attempt to measure or to recognize creative abilities. One result of Terman’s work with the California students was that many people continued to associate giftedness with heredity and to rely on a single index of giftedness.

**Defining giftedness**

Even today, there is continued interest in responding to the criticism of Terman’s work and the idea of relying on a single index of giftedness. However, many school systems do view intelligence or giftedness as multifaceted, with a number of talents included under the general term of giftedness. This particular point of view was reflected in the U.S. national definition
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Demonstrated achievement and/or potential ability can exist in the following areas, singly or in combination:

- General intellectual ability
- Specific academic aptitude
- Creative and productive thinking
- Leadership ability
- Visual and performing arts
- Psychomotor ability

Using a broad definition of giftedness, a school system could expect to identify 10 to 15 percent or more of its student population as gifted and talented. A brief description of each area of giftedness or talent as defined by the Office of Gifted and Talented will help the school system in this process.

General intellectual ability or talent. Laypersons and educators alike usually define this in terms of a high intelligence test score—usually two standard deviations above the mean—on individual or group measures. Parents and teachers often recognize students with general intellectual talent by their wide-ranging fund of general information, high vocabulary level, memory, abstract word knowledge, and abstract reasoning.

Specific academic aptitude or talent. Students with specific academic aptitude are identified by their outstanding performance in one area, such as mathematics or language arts, on an achievement or aptitude test. The organizers of talent searches sponsored by a number of universities and colleges (e.g., Duke, Northwestern, Johns Hopkins, and the University of Arizona) identify students with specific academic aptitude who score at the ninety-seventh percentile or higher on standard achievement tests and then give these students the Scholastic Aptitude Test (SAT). Remarkably large numbers of students score at these high levels on tests.

Creative and productive thinking. This is the ability to produce new ideas by bringing together elements usually thought of as independent or dissimilar. Creative and productive thinking can be defined as the aptitude for developing new meanings that have social value. Characteristics of creative and productive students include openness to experience, setting one's own standards for evaluation, ability to play with ideas, willingness to take risks, preference for complexity, tolerance for ambiguity, positive self-image, and ability to lose oneself in a task. Creative and productive students are identified through the use of creative tests such as the Torrance Test of Creative Thinking or through demonstrated creative performance.

Leadership ability. Leadership can be defined as the ability to direct individuals or groups to a common decision or action. Students who demonstrate giftedness in leadership ability use group skills and negotiate in difficult situations. Many teachers recognize leadership through a student's keen interest and skill in problem-solving. Leadership characteristics include self-confidence, responsibility, cooperation, a tendency to dominate, and the ability to adapt readily to new situations. These students can be identified through instruments such as the Fundamental Interpersonal Relations Orientation Behavior (FIRO-B). In addition, their demonstrated leadership can be useful, as when they serve as captains of athletic or debate teams—or as instigators of behind-the-scenes action in the classroom, which may be socially desirable or undesirable.

Visual and performing arts. Gifted students with talent in the arts demonstrate special talents in art, music, dance, drama, or other related studies. These students can be identified by using task descriptions such as the Creative Products Scales, which were developed for the Detroit Public Schools by Patrick Byrons and Beverly Ness Parke of Wayne State University in Detroit. The Music Composition Scale, which is one of the Creative Products Scales, includes functional processes: line, harmony, rhythm, form, texture, color, notation, and instrument usage. Music performance is rated on tone, intonation, technique, interpretation, and improvisation. Also, musical selection, general spirit, and stage deportment can be considered.

Psychomotor ability. This involves the kinesthetic motor abilities such as practical, spatial, mechanical, and physical skills and is seldom used as part of gifted programs.

Other viewpoints

Robert Sternberg and Robert Wagner have proposed yet another definition of giftedness, that of the purposive selection of an adaptation to the real-world environments relevant to one's life. They state that the key psychological basis of intellectual giftedness resides in insight skills. These skills include three main kinds of processes: (1) separating relevant from irrelevant information, (2) combining isolated pieces of information into a unified whole, and (3) relating newly acquired information to information acquired in the past.

Sternberg and Wagner emphasize problem-solving abilities and view the gifted student as one who
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processes information rapidly and uses insight abilities. Howard Gardner also suggests a concept of multiple intelligence, stating that there are seven ways of viewing the world: linguistic, logical/mathematical, spatial, musical, bodily-kinesthetic, interpersonal, and intrapersonal intelligence. These ideas are similar to an earlier notion of giftedness that was offered by Charles Bish, author of a series of booklets published in the 1960s on the academically talented, who described four types of giftedness: academic, creative, psychosocial, and kinesthetic.

Joseph Renzulli states that gifted behavior reflects an interaction among three basic clusters of human traits. These are above-average general and/or specific abilities, high levels of task commitment (motivation), and high levels of creativity. According to Renzulli, gifted and talented children are those children who possess or are capable of developing this composite of traits and applying them to any potentially valuable area of human performance.

Legislative support

In 1978, the United States Congress passed the Gifted and Talented Children’s Act (Public Law 95–561), in which it was stated that (1) the nation’s greatest resource for solving critical problems in areas of national concern is its gifted and talented children, and (2) unless the special abilities of these gifted and talented children are developed during their elementary and secondary school years, their special potential for assisting the nation may be lost.

Public Law 95–561 was part of Title IX of the Elementary and Secondary Education Act. Under this law, 75 percent of the funds for gifted and talented program development were directed to state education agencies, and 25 percent of the funds were to be distributed as model projects and to local education agencies. A budget of $2.56 million was approved for a hypothesized 2.56 million gifted and talented children. However, the inadequacy of the budget was clear: it provided one dollar per gifted youngster.

On February 12, 1982, the Education Consolidation Act merged the efforts for gifted education with twenty-nine other programs, and the Office of Gifted and Talented was phased out. For six years, there was no federal office for the gifted and talented. In 1988, however, both houses of Congress passed identical bills for the gifted that were again included in the Elementary and Secondary Education Act. Funding of $7.9 million was appropriated for the reestablishment of a federal office for the gifted and talented, for education programs, for training grants, for demonstration projects, for grants to state and local agencies, and for the establishment of a National Research Center.

Yet in spite of the fluctuations in federal support, during the last four decades there has been visible growth in support of the gifted and talented at the state level. The 1987 State of the States Gifted and Talented Education Report (Council of State Directors, 1987) reports that forty-seven states, as well as Puerto Rico and Guam, recognize education of the gifted and talented through legislation, and the same number of states have assigned state department staff to leadership positions in developing programs for the gifted. Twenty-nine states report a state board of education policy and position statement supporting education of the gifted and talented. Twenty-four states and Guam have a mandate for services for gifted students, and twenty-two states report supportive legislation for gifted students. Funds for gifted and talented students throughout the nation, Puerto Rico, and Guam currently exceed $250 million. Such data reflect the growing support for programs for the gifted and talented.

Promising practices

Several promising practices can be listed in identifying talent potential in the visual and performing arts. One successful program in New York City was the Arts Connection, which involved exploratory activities with inner-city youngsters. In this program, the students were provided opportunities to demonstrate their potential talent to performing artists, and then given instruction to develop their talents.

Another example is the Cincinnati School for the Performing Arts for grades 4–12. Children audition for the school in the areas of music, art, drama, and dance. The Cincinnati School aptly demonstrates the notion of multiple talent in that the visual and performing arts students recently won the district basketball championship and came in second in academic performance.

Parental commitment

The importance of parents’ roles in supporting and encouraging talent development was one of the major findings of the Richardson Study. In this national study on talent development, parents were found to be particularly important in early identification and stimulation of talent.

Benjamin S. Bloom, who examined the home environments and
the early training of exceptional pianists, sculptors, swimmers, tennis players, and mathematicians, found that the children’s home environment and parents nurtured the children’s early interests and developed their skills to extraordinary levels. In Bloom’s study, in most cases one or both parents of a talented child had a strong interest in the field in question and were above average in the talent themselves. The parents supported their children and encouraged and rewarded their talent. The talented parent served as a model and exemplified the personality and lifestyle of a highly talented person. Talent development was expected and accepted. Initially, the parents provided the training and supervised the practice; later on, teachers of outstanding abilities were identified. In some cases, the family moved often so that the children’s talent could be further refined and developed.10

Bloom contrasted the development of talent with traditional educational philosophy and methods. First, in the early years of home instruction, talent development is informal, exploratory, and similar to play, whereas school is traditionally serious, formal, and strictly scheduled. Second, talent development is individualized, with praise and rewards based on completion of individualized objectives and standards; schools provide a minimum of individual attention, with rewards based on group achievements. Third, in talent development, the learner is encouraged to attempt higher and higher levels of accomplishment in a single specialized area; schools provide students with a broad base, and strong specialization is not encouraged. Fourth, in talent development, purpose and meaning are clear and the student is motivated to accomplish hard work; for many students, school learning has little meaning.

Another researcher, David Feldman, reviewed the training and personal lives of prodigies, along with contemporary musicians. He stressed the coincidence of human factors, the existence of a precocious child, and cultural factors such as the availability of communicable knowledge. Feldman agreed with Bloom that both gifted students and their teachers were highly dedicated and had a passionate commitment to their field.11

A bright future

The notion of multiple talents is gaining acceptance in gifted and talented education, and there is a growing awareness of the importance of early identification for talent development. The importance of parents also cannot be denied for (1) assisting in identification, (2) providing exploratory activities to help develop natural talent, and (3) working with the school to encourage program development for the enhancement of multiple talents or to locate outstanding teachers or facilities to develop talent.

One trend that is readily recognizable in the United States is for school districts including creativity and programming for the visual and performing arts in the gifted program to balance a more traditional emphasis on academics. Currently, this trend is most apparent in large school districts and in city districts.

In planning for the gifted, whether in an urban, a suburban, or a rural setting, local educational personnel can remember that, no matter what the strategy they employ, all local program efforts designed for gifted students have had positive effects on the gifted.12 Moreover, when gifted education is added to the local school offerings, other students benefit as well. When talented students are encouraged to be creative producers, the entire school is enriched by their enthusiasm, their knowledge, and their creative products.

Notes