15. EDUCATION OF GIFTED CHILDREN: A GENERAL ROADMAP AND THE CASE OF ISRAEL

There are two major reasons why an organization should establish special programs for gifted children. The first one is to help individual gifted children maximize their capacities for their own sake, rescuing them from an unchallenging environment in their “normal” classes. The second reason has to do with the welfare of others rather than that of the gifted individuals: investment in gifted children as a promise for a better future for the society.

When a nation or an organization makes a strategic decision to establish a large-scale program for the education of the gifted, it has to follow a certain roadmap that includes several crossroads; at each crossroad a choice must be made between several options. The major junctures and the options associated with them are described in this article. Among the domains where actual decisions should be made are: Definitional issues, types of special talents, identification of gifted children, age range, types of enrichment programs and teacher qualifications. It is argued that there is no single program, specific combination, or unique track for all gifted education programs. Every program must be custom-tailored according to the children’s specific needs and conditions. Moreover, every gifted education program must be considered as a long-range investment. The fruits of efforts in the area of the education of gifted children are seen many years later.

In the second half of the article, it details the specific decisions that were taken by the Ministry of Education in Israel with regards to the education of gifted children.

INTRODUCTION

There are two major reasons why an organization should establish special programs for gifted children. The first one is to help individual gifted children maximize their capacities for their own sake, rescuing them from an unchallenging environment in their “normal” class. The second reason has to do with the welfare of others rather than that of the gifted individuals.

More than 80 years ago, L.H. Terman, from Stanford University, said: “A nation’s resources of intellectual talent are among the most precious it will ever have… [and] of almost unequalled importance for human welfare…” (Terman, 1926, p. 5).

Supporting this view, Daddario (1977) wrote: “The gifted child who decides to pursue a scientific career must strive to acquire a wisdom of no common order – a wisdom whereby knowledge will not be accumulated for its own sake, but rather
with the aim of improving our nation’s chances of accomplishing its democratic goals and objectives and even its hopes” (p. 33). Similarly, Lynn and Vanhame (2002) related the wealth of nations to the IQ of their citizens.

When a nation or an organization makes a strategic decision to establish a large-scale program for the education of the gifted, it has to follow a certain roadmap that includes several crossroads; at each crossroad a choice must be made between several options. The roadmap can serve also as a general description or an overview of the international scene of gifted education programs at the beginning of the 21st century. The major junctures and the options associated with them are described below.

A GENERAL ROADMAP

Definition: Statistical

*Level of excellence and the gifted label.* How extraordinary should a person’s achievement be to apply the label *gifted or talented* to that person? How high should a child’s test scores in mathematics be in order to enroll this child in a special program for the gifted? Some educational programs for gifted children select the upper 1–5% of the general population. By contrast, researchers who investigate excellence in adult life are more restrictive in their definition of giftedness, focusing on Nobel laureates or people of similar achievement (Lehman, 1953; Roe, 1953; Simonton, 1988). In principle, each researcher or program director can choose an idiosyncratic cutoff point for the purpose of defining giftedness. There is no “correct” cutoff point because the issue is definitional in nature. Here are the most common options:

- Upper 0.1 percent (1 in 1,000) (“super gifted”)
- Upper 1 percent (1 in 100) (“gifted”)
- Upper 5 percent (1 in 20) (“excellent”).

Definition: Type of Talent

In which areas of human performance are people recognized to be gifted or talented? Historically, giftedness was associated with superior academic ability or achievement, measured by grade point average or IQ (some intriguing new concepts regarding IQ appear in Flynn, 2007). In recent years, however, other types of giftedness have received attention in research and educational programs. A committee headed by Marland (1972) proposed a conception of giftedness that included performance areas such as social leadership, creativity, and psychomotor ability. Gardner’s (1983) theory of multiple intelligences also implies the extension of giftedness to non-scholastic areas. Sternberg (1991) proposed a triarchic model of giftedness involving analytic, synthetic, and practical elements, suggesting that many more people may now be considered gifted or potentially gifted. Naturally, some types of cognitive capacity are interconnected (see Blair et al., 2005).
Are there “correct” types of giftedness? Can we empirically test whether Terman’s IQ-oriented conception of giftedness is more correct than the Marland committee’s broader view? We believe that the debate over types of giftedness is an axiomatic one. The following may be considered major types of giftedness:
- General scholastic aptitude (IQ)
- Mathematical ability
- Arts
  - Painting, sculpting
  - Music
  - Creative writing
- Sports

And more

Comment: Some educators use the terms “gifted” and “talented” interchangeably. We prefer the use of the term “gifted children” in reference to scholarship and “talented children” in reference to all other types of human excellence. Nevertheless, in this article, the two terms may appear interchangeably.

Comment: The computer era may have produced some new types of talent. It is too early to tell.

Methods of Identification of the Gifted

What makes a gifted person gifted? In addition to domain-specific superiority, what traits are needed for potential talent to be expressed? These questions are important for selecting students for gifted programs and for designing program curricula.

Renzulli’s (1978, 1986, 1990) three-ring theory of giftedness is perhaps the best-known model in this field. Renzulli hypothesized that above-average ability, creativity, and motivation must coexist within an individual for giftedness to occur. In recent years, Renzulli et al. (2006) added two other dimensions: personality traits and environmental conditions. Tannenbaum (1983) proposed a related theory of five psychosocial components of excellence. The fifth one is “luck.” Haensley, Reynolds, and Nash (1986) emphasized environmental conditions for the materialization of potential talent. These theories, and others like them, can be supported or rejected by research. It may take years before we obtain conclusive evidence on the independent necessity of each of Renzulli’s three components, but the hypotheses are testable. Sternberg (1990) treats Renzulli’s model as a definition, and therefore dismisses a data-oriented debate of it as misguided (see Jarrell & Borland, 1990; Renzulli, 1990). It is true that Renzulli (1978) first called his theory a “definition,” but he later labelled it a “conception,” clearly allowing for empirical scrutiny (Renzulli, 1986, 1990).

What are then the most reliable and valid procedures for selecting and placing gifted students? Usually, the original choice of an identification battery depends on the nature of the program for the gifted and on the previous experience of the professionals involved in the process. An identification battery may include IQ
tests, special ability tests, creativity tests, personality measures (i.e., motivation, intellectual courage, curiosity, etc.). These components and the battery as a whole should be examined empirically for internal consistency, content validity, test-retest reliability, inter-judge consistency, and empirical validity. Below are some common test formats:
- Multiple choice tests
- Open-ended tests and essays
- School achievement
- Portfolio/project evaluation
- Teacher ratings
- Interview (with child/parents/teachers)
- Questionnaires.

Age Range

Some educators argue that enrichment programs should start as early as possible. Others believe that psychological/neurological maturity is a pre-requisite. Studies on child prodigies support the second view. Moreover, there are no good identification devices that can be applied at a very early age. The following age periods can be found in some countries, but the 6-18 category is the most common one.
- 2-4 years old
- 4-6 years old
- 6-18 years old.

Enrichment: The Format

Education programs for the gifted can be rank-ordered by their intensity. The most intensive program is that of a special school where all students and teachers are oriented toward giftedness. But there are other formats, less intensive and not necessarily less effective.

The first five options in the following partial list are group/class-oriented. The last two are individual-based interventions.
- Special schools for the gifted
- Special classes (within “normal” schools)
- One-day (per week) programs
- Enrichment courses (several afternoon hours per week)
- Summer activities
- Individual tutoring
- E-learning.

Enrichment: Types of Courses

After the format has been determined, the next decision concerns the type of courses that are most effective in enhancing giftedness.
In the past 25 or more years, several educational programs for the gifted have been proposed. Examples include Parnes’s creative problem solving method (Parnes, Noller & Biondi, 1977), Renzulli’s enrichment triad model (Renzulli, 1978; Renzulli & Reis, 1985), the Johns Hopkins University acceleration program (Fox, 1981; Stanley, 1980), Tannenbaum’s (1983) enrichment matrix, and many others.

The answers to questions about program effectiveness should be based on factual evidence. Every proposed program must be examined empirically for desired and undesired outcomes. Endorsement of an educational program, or calls for improvement, can come only after data-oriented study. The most common types of enrichment programs from the point of view of course characteristics are based on the following:

- Large quantity of “normal” courses (sometimes called “heavier course load”)
- Acceleration of learning
- Higher quality of courses (for example, college courses offered to gifted high school or even elementary students)
- Special courses for the gifted.

All these options assume that a gifted child learns faster and more efficiently than a non-gifted child.

**Enrichment: The Content**

In addition to the knowledge being transferred through regular courses such as the ones mentioned above, many enrichment programs for the gifted aspire to provide special contents for the teaching of gifted children. The assumption of this practice is that gifted children will become future leaders in science, arts, technology, medicine, and so on. Following are some examples:

- Fostering creativity
- Developing independent thinking
- Training for teamwork
- Developing leadership
- Developing methodical thinking

Comment: The magic word in the education of gifted children is *choice*. Gifted children need to have a selection of courses offered to them, from which to choose.

**Social Considerations**

In contrast to the view that places the interest of society first, some educators argue that the target for enrichment programs should be the gifted individual’s welfare (Borland, 1986). Potentially gifted persons deserve special programs, independent of their societal benefits. According to the “individual argument,” the gifted deserve special treatment because standard education does not allow them to maximize their potential.
The perspective chosen by the program manager can affect concretely a program’s identification and selection policies, procedures, and syllabus. The specific role of gifted individuals within society can be communicated through community projects or through dialogues among students, their parents, and their teachers. A second societal consideration has to do with the identification process.

Should a standard admission policy be applied to all applicants, regardless of their ethnic, socio-economic, and cultural background? Or should a preferential policy be adopted, using a lower cut-off point for ethnic minorities and disadvantaged students? If the same selection requirements are maintained for everyone, students from poor or atypical backgrounds may often be excluded. But allowing a double standard in admission policy exacts its own price. Decisions about this issue are based on ideological (political, ethical) considerations guided by conflicting social values.

Thus, the two major social issues where concrete decisions should be taken are:

- Socially/humanistically oriented programs
- Affirmative action in admission.

Teachers

It is now well recognized that gifted children need experienced teachers who specialize in gifted education. Teachers of gifted children should be inspiring persons, who do their job with a sense of mission, who themselves perform above average in their fields. But demand is higher than supply in this field. Therefore, both the following options are common:

- Regular teachers
- Teachers specifically trained for working with gifted children.

Research

Too many programs for gifted children are conducted without a long-range perspective, that is, without concern for the evaluation part, which must accompany any intervention program. The minimal budget requirement for research and development is 10% of the total budget of the program. Other options are:

- 15% of the total budget for the project
- 20% of the total budget for the project.

Legislation

Initiating special legislation concerning education for the gifted should be operated in order to secure long-term range goals.

In conclusion

It is argued that there is no single program, special combination, or track unique for all gifted education programs. Every program must be custom-tailored according to
the children’s specific needs and conditions. Moreover, every gifted education program must be considered as a long-range investment. The fruits of efforts in the area of the education of gifted children are seen many years later.

THE CASE OF ISRAEL

The ROAD MAP which was described above is a general model for policy decision making in the area of education for gifted children.

We turn now to the specific case of Israel. Some activities in Israel which are related to gifted education are not run by the government. Nevertheless, the government (namely the Division for Gifted and Excellent Education, in the Ministry of Education) is responsible for the majority of these activities, and therefore the description below is aimed at the public domain.

Definition: Statistical. The top 1% of each cohort is defined as “gifted.” The next 4% are defined as “excellent.” In rural areas and in lower socio-economic neighbourhoods, these thresholds are applied somewhat less stringently.

Definition: Type of Talent. The type of giftedness that is enriched by most programs is the general scholastic aptitude (IQ). Other talents, intended to be promoted in the future, are mathematical ability, arts, computers, and creative writing.

Methods of Identification. Gifted children in Israel are selected based on performance on group intelligence tests. Two new criteria are planned to be used in the selection: level of motivation and level of creativity.

Age Range Most programs in Israel are aimed at ages 8-18.

Enrichment: The Format Programs in four formats operate in Israel:
- Special classes (within “normal” schools)
- One-day (per week) enrichment programs
- Evening enrichment courses
- E-learning: every gifted child is entitled to attend e-learning courses, from home. To date, ten college level courses have been developed.

The programs are funded from various sources, including the government, local municipalities, and the parents.

In the future, gifted children will be accepted as “young” research assistants at the universities, working with the faculty in the laboratories.

Enrichment: Type of Courses Gifted children in Israel attend, in addition to the usual courses required by the Ministry of Education, deeper and/or accelerated and/or entirely new special courses.
Enrichment: The content. Gifted education programs in Israel are aimed at nurturing independent thinking, creativity, critical thinking, and specific knowledge. Gifted children attend college/university courses and can receive academic credit for these courses.

Social considerations. Israeli policy makers in the area of gifted education declared repeatedly that the ideal gifted adult should demonstrate social commitment to the community, the country, and to human values. In all classes and centers for gifted children, the students are required to participate in community projects.

Teachers. Most teachers of gifted children in Israel hold a B.A. degree and a teachers’ certificate with specialization in the area of giftedness. The special studies consist of 240 hours over two years.

Research. No advanced research and evaluation has been conducted in the area of education for gifted children in Israel. Efforts in this area will be doubled or tripled in the next five years.

Legislation. In 2009, a team is preparing legislation aimed at gifted education. It is expected that it will be passed by 2010.

REFERENCES


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**Baruch Nevo**  
Department of Psychology  
University of Haifa  
Israeli Steering Committee for Gifted Education  
Israel  
bnevo@psy.haifa.ac.il

**Shlomit Rachmel**  
Head - Division of Gifted and Talented Education  
Ministry of Education  
Israel  
shlomitrr@int.gov.il