ISSUES RELATED TO THE EDUCATION OF GIFTED CHILDREN
IN THE UNITED STATES:
A DELPHI STUDY

by

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The purpose of this study was to investigate the areas of disagreement among experts on important issues in the education of the gifted in the United States, and to answer the following questions: (1) Which key issues are perceived by the panel of experts as being the most important? (2) Which of the issues deserves top priority? (3) On issues deemed most important, what action should be taken at the national, state, and local levels? (4) What are the experts' definitions of the term "gifted"?

Two pilot studies were conducted in which 12 issues important to gifted education emerged. Data for the main study were collected by means of a modified Policy Delphi method in which a selected panel of people knowledgeable about the issues was surveyed. The study, consisting of three rounds of questions, was conducted by mail over several months with a panel of 29 acknowledged experts in the field. The six critical issues in gifted education, in order of panelists' priorities,
were: (a) curriculum for the gifted; (b) procedures for identifying children for gifted programs; (c) selection and training of teachers for the gifted; (d) special populations of gifted (handicapped, females, minorities, underachievers, preschool, and the highly gifted); (e) goals of gifted programs; and (f) definition of the term "gifted."

Panelists agreed on 53 actions that should be taken at the federal, state and local levels. At the federal level, actions should be in the form of catalytic support, research on the issues, and dissemination of research results. At the state level, guidelines, standards, and procedures regarding the various issues were suggested. At the local level, the majority of panelists' suggestions concerned policies and procedures regarding curriculum for the gifted and teacher training.

The definition of the term "gifted" was divided into three components: giftedness, the gifted child, and the gifted adult. The definition statements agreed upon by panelists for the gifted child emphasized potential; for the gifted adult, performance; and for giftedness, both potential and performance.
ACKNOWLEDGMENTS

Dedicated to the memory of my parents,
Donald and Kathryn Herrick

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Interest in highly intelligent youth in the United States has fluctuated widely during the 20th century. Identification of and special educational provisions for bright youngsters have experienced varying degrees of support. This support has been influenced by factors such as the country's defense needs and the economic realities of world competition.

Also affecting interest in the gifted have been societal values. John Gardner, in the title of his 1961 book, Excellence: Can we be equal and excellent too?, sums up the problem succinctly. On one hand, there is the desire for equality of opportunity for all; and on the other, there is the desire to nurture the American tradition of high achievement.

After national focus on the gifted during the 1970s, spurred by the Marland Report to Congress (Marland, 1972), there has been an absence of clear policy and strong leadership from the United States Department of Education with regard to the gifted. This lack of leadership is reflected at the state and local levels as well. Healey (1986) states that because the U.S. has had no
public policy that supports the special education of gifted children, no common goal exists for the 50 states and their 15,000 school districts to establish policies and procedures governing special programming for gifted children. Thus, throughout the country, programs for the gifted range from excellent to on-existent, and state funds to support them range from millions of dollars to 0 dollars.

In addition to the dearth of federal leadership, there is among policy makers, experts in the field, and informed others, considerable disagreement on many important issues regarding the gifted. This disagreement also may be responsible for the sporadic support for efforts to serve our most promising young people.

Statement of the Problem

Educational policy making is complicated by opposition among equally qualified experts (Halperin, 1980), and there is certainly considerable disagreement on some basic and important issues among experts in the field of gifted education. This lack of accord may be an important factor in the inconsistent support for the gifted found at the national, state, and local levels. Given that the very concept of giftedness itself is nebulous and open to many interpretations, it is clear that agreement is difficult. Since educators themselves have been unable to agree on an operational definition of giftedness, Yarborough and Johnson (1983) declare that it is not surprising that programs
for the gifted have not advanced further than they have. Public support for gifted programs cannot be expected until the gap between theory and practice is narrowed.

Many researchers have noted the lack of agreement. In his reaction to the collection of articles in a special issue of *Elementary School Journal*, Fenstermacher (1982) asserts that there is obviously no definitive answer among the experts to the question, "Who are the gifted?" He points out that, according to the authors of the articles contained in the special issue, the number of gifted children ranges from 3% to nearly 90% of all children. Nor does he find agreement on "What should be done for the gifted?", again citing the various authors and their many recommendations as to what bright youngsters should be taught. Similarly, Sosniak (1987) reports from her observations of several examples of gifted programs that "considerable confusion exists regarding who is gifted and talented and regarding what kinds of educational experiences ought to be provided for such students" (p. 537). In the area of identification, Sosniak (1987) finds in Sternberg's (1986a) book, *Conceptions of giftedness*, almost as many different points of view on how to identify the gifted and talented as there are chapters, which number 18.

Writing of the general lack of accord, DeLeon and VandenBos (1985) correctly warn that "to the concerned public official, there does not appear to be any consensus within the field..." (p. 426). The concerned public, as well, would most likely share
this view.

Thus seems that the long-term interests of gifted children would best be served if:

(a) beliefs concerning important issues could be identified;
(b) areas of disagreement on the issues could be ascertained; and
(c) the range of disagreement could be narrowed, and agreement could be approached, if not reached, on these issues.

The following issues, identified by participants in a pilot study as well as determined from the literature, are important to the education of the gifted:

(1) Definition of the term "gifted";
(2) Procedures for identifying gifted children;
(3) Administrative structure of programs for the gifted;
(4) Goals of special programs for the gifted;
(5) Special populations of gifted: underachievers, minorities, handicapped, females, very young children, pre-school through grade 3;
(6) Selection and training of teachers of the gifted;
(7) Curriculum for the gifted;
(8) Evaluation of special programs for the gifted;
(9) Funding of special programs for the gifted;
(10) Public attitudes toward and support for the gifted, including the equity/excellence dichotomy;
(11) Advocacy efforts for gifted children; and
(12) Counseling the gifted, including career counseling.
Purpose of the Study

To examine these key issues in the education of the gifted, a Delphi study was conducted among a knowledgeable panel composed of 29 experts in the field. Answers to the following questions were sought:

1. Which of the key issues is perceived by a panel of experts in the field as most important?
2. Which of the issues deserves top priority?
3. What are the experts' definitions of the term "gifted"?
4. What action should be taken on the key issues at the federal, state and/or local level?

Limitations of the Study

There are four main limitations of this study. First, because Delphi is a communication process concerned with beliefs of a selected panel, there is an inherent limitation to any Delphi research. Second, although panelists were selected on the basis of expertise in the field, not every variation of opinion on the issues is represented. Third, each panel member brings to the study a unique set of perceptual filters and biases. And fourth, the researcher could bring her own perceptual filters and biases to the study.
Significance of the Study

It is envisioned that the results of this study will present to educators and others in the field the opportunity to pinpoint and resolve issues that pertain to gifted education now and in the future. It is further hoped that this study will afford decision makers the opportunity to consider all options and supporting evidence of an informed group in their analysis of policy issues concerning the education of gifted students as the policy makers move toward the establishment of national policies with regard to the gifted.

The outcome of the study will consist of "pooled judgments that have 'validity' believed to be greater than that of any individual" (Scheele, 1975, p. 57). Planning based on informed judgments may help educational decision makers as they plan for the education of highly intelligent young people in the 21st century.
Support for Gifted Education in the United States

To provide or not provide "gifted education" is, first and foremost, a political issue. Second, it is an economic issue, and finally it becomes a socioeducational debate among groups and individuals with divergent points of view. (Healey, 1986, p. 159)

Early Interest

Interest in the gifted in the United States was sparked with Lewis Terman's longitudinal study of over 1500 children with IQ scores of 140 and over, begun in 1922 and continuing to this day (Sears, 1979). Prior to this time, gifted children had been viewed as being small, weak, socially inept, neurotic, and susceptible to nervous instability. A gifted person was described by the sayings of the day, such as "Precocity is a morbid condition, and those manifesting it often lack vitality and resisting power" (Garrison & Force, 1965), and "Early ripe, early rot" (Sears, 1979). Since child prodigies were thought to become adult imbeciles, no parent wanted such a child. Attempts to encourage mental development were unthinkable; parents who found their young children reading or engaging in other intellectual pursuits would discourage them, and often go to great lengths to hide the precocious behavior from neighbors and teachers.

Terman's study (Sears, 1979) laid to rest many of these
ideas as his data showed that bright children were superior to average children in health, emotional stability, social adjustment, and variety and depth of interests.

Although there were some special provisions for bright students in the late 19th and early 20th centuries, these were few and far between. The most prevalent among these was the "flexible promotion," in which the curriculum was compressed so that the student could complete it in a shorter time—perhaps three years in two. This allowed bright children to proceed through the curriculum sequence at a more rapid rate without skipping anything. During this same time, grade skipping also came into vogue.

In the 1920s and 1930s, as the students' social needs were taken into account, enrichment in special classes supplanted grouping for acceleration as the means to serve the gifted. This in turn gave way to enrichment in the regular classroom, as child study specialists argued for keeping bright youngsters in the regular classroom. This continued throughout the World War II years (Tannenbaum, 1983). By the end of the war, interest in the gifted was at a low ebb. Tannenbaum (1958) cites a survey by the National Education Association (NEA) in 1941 of special provisions for the gifted in several hundred high schools throughout the country. A check of 100 of these same schools in 1954 revealed every one of the special programs had been dropped, some because the person who had established the program had moved on, and others for financial reasons (Tannenbaum, 1975).
Federal Support

Federal interest in the gifted essentially began shortly after World War II when Congressional hearings were held on the importance of maintaining a strong defense as well as enhancing our technological position in the world. These hearings resulted in the passage in 1950 of the National Science Foundation Act (DeLeon & VandenBos, 1985).

Also in 1950 a policy statement, critical of the lack of attention being paid to the education of the gifted, was issued by the Educational Policies Commission. The statement recognized the great waste resulting from this neglect, and offered proposals for meeting the educational needs of these gifted students (Tannenbaum, 1983). This led to an increasing number of schools establishing special programs for their brightest students.

In 1957, the year of the successful launch of the Soviet Sputnik, a sudden surge of interest in the gifted occurred. Following this event, there was an intensive search for children with the potential to become the technicians and scientists who could help this country surpass the Soviet achievement. Interest in gifted children, who were viewed as national resources, reached its peak. From 1959 through 1963, federal money for services to the gifted, funded through the National Defense Education Act, reached an all-time high. A survey by the NEA showed that nearly 80% of secondary schools were making some type
of special services available for their gifted students (DeLeon & VandenBos, 1985). Ballard (1984) reports that there were more articles and studies on the gifted published between 1956 and 1959 than during the previous 30 years combined (p. 238). This "Golden Age" for the gifted lasted about five years, and then, as people concluded that the country's world leadership was reestablished, support lessened.

However, advocates for the gifted did not relax their efforts. They continued to urge the federal government to assume a long-term role in the education of the gifted. In 1969, Congress passed the Gifted and Talented Children's Education Assistance act as part of another bill. Although this Act was not funded, from it emerged two highly significant features: the determination by Congress that the gifted and talented were a federal concern, and even more importantly, the provision requiring a report to Congress by the Commissioner of Education (DeLeon & VandenBos, 1985).

Marland was instructed by Congress to conduct a study to:

1. Determine the extent to which special educational assistance programs are necessary or useful to meet the needs of gifted and talented children.

2. Show which Federal education assistance programs are being used to meet the needs of gifted and talented children.

3. Evaluate how existing Federal educational assistance programs can be more effectively used to meet these needs.

4. Recommend new programs, if any, needed to meet these needs. (Marland, 1972, p. 1)
The report, a landmark work, was an evaluation of the status of education for the nation's gifted and talented children. It consisted of five parts (Marland, 1972):

1. Review of research;
2. Analysis of the educational data bases available to U.S. Office of Education (USOE) and the development of a major data base through the "Survey of Leadership in Education of Gifted and Talented Children and Youth," known as the Advocate Survey (sent to 239 experts in the field);
3. Public hearings in each of the ten HEW regions to determine regional needs (including the testimony of 295 people);
4. The State Survey, which was a study of programs in representative states with long-standing statewide support for gifted/talented education; and
5. Review and analysis of the system for delivery of USOE programs to benefit gifted and talented children.

Marland's findings were rather discouraging. For example, a conservative estimate put the number of gifted children in 1970 at between 1.5 and 2.5 million children out of a total school population of 51.6 million (3%-4%). And while figures are not available as to how many of these gifted children were receiving special services, a 1970 survey of school principals showed that nearly 60% of them (57.5%) reported that they had no gifted children at all in their school. Special education for the gifted was obviously a low priority of federal, state and most local government and educational administrations. States and
local communities looked to the federal government for leadership in this area of education, but the federal role was practically nonexistent.

Based on these findings, several recommendations were made: establish an office of Gifted and Talented within the Office of Education; conduct a national survey to determine costs, evaluation procedures and model programs; develop a clearinghouse on gifted education; and provide research support for disadvantaged gifted.

Perhaps the most long lasting effect of Marland's report has been the Federal definition of gifted and talented children:

Gifted and talented children are those identified by professional qualified persons who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society.

Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:

1. general intellectual ability
2. specific academic aptitude
3. creative or productive thinking
4. leadership ability
5. visual and performing arts
6. psychomotor ability.

It can be assumed that utilization of these criteria for identification of the gifted and talented will encompass a minimum of 3-5% of the school population.
Evidence of gifted and talented abilities may be determined by a multiplicity of ways. These procedures should include objective measures and professional evaluation measures which are essential components of identification. (Marland, 1972, p. 2)

Parts 1 through 5 of this federal definition are currently being used by many states as their state definition of gifted/talented (Houseman, 1987). (Part 6, Psychomotor Ability, was deleted from the federal definition in 1978.)

In 1975, for the first time, categorical funds amounting to $2.56 million were appropriated for gifted child education through PL 93-380, amendments to the Elementary and Secondary Education Act. Although this amount was only about one-fifth of the $12.25 million that had been authorized, it was a beginning, and signified that gifted/talented children were recognized as a special population that needed federal help. However, several researchers (e.g., Gallagher, 1979b; Jackson, 1979) were concerned regarding the use of categorical funds for "special projects," and the lack of funds for research. Gallagher (1979a) maintains that in order to bring about quality education for the gifted, an effective support system is needed. This should include continuous inservice training, leadership training, research and development, and technical assistance and communication. Because state funds are traditionally used for direct services, it is appropriate for the federal government to act as a catalyst to program development by providing this support system.
Federal support designated specifically for gifted programs ended in early 1982 when the Education Consolidation and Improvement Act merged these efforts with 28 other programs, and the Office of Gifted and Talented was phased out. Educational efforts on behalf of the gifted and talented were shifted from the federal government to the states. Funds were distributed through block grants to the states for all 29 merged programs. Each state then established its own priorities, and decided whether or not to use federal block grant funds for gifted education (Sisk, 1987).

Almost immediately, advocates individually and in organizations such as Council for Exceptional Children and National Association for Gifted Children began a major national effort aimed at gaining new federal legislation. Six years later, after considerable effort, many high hopes, and numerous disappointments, the "Jacob K. Javits Gifted and Talented Children Act of 1987" was passed, with an authorization of $25 million and an appropriation of $8 million.

**Federal funding.** A look at the figures for federal spending on gifted and talented serves as a summary of recent support.

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<td>FY 1976:</td>
<td>$12,250,000 (Jackson, 1979)</td>
<td>$2,560,000 (Jackson, 1979)</td>
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FY 1978: $2,560,000 (U.S. Office of Education, 1978)
FY 1979: $25,000,000 (PL 95-561)
FY 1980: $30,000,000 (PL 95-561)
FY 1981: $35,000,000 (PL 95-561)
FY 1982: $40,000,000 (PL 95-561)
FY 1983: $50,000,000 (PL 95-561)
FY 1990: $20,000,000 (PL 100-297)

The appropriation for FY 1990, while an increase of 25% over the last (1981) appropriation, comes nowhere near the $38 million suggested by Gallagher in 1985 (p. 376) as the modest sum then needed to make major differences in state and local school systems. That year, $38 million would have provided 10 leadership training programs, 40 research and development programs, and in-service training, demonstration programs and state planning programs for each of the 50 states.

For the years between 1982 and 1989, there was no funding specifically appropriated for gifted and talented, as funds had been consolidated into the block grants by the Education
Consolidation and Improvement Act of 1981. Only five states specified a portion of these block grant funds for educating gifted children (U.S. Congress, House, 1984). As Marland (1972) correctly pointed out, without special designation of fund use for the gifted and talented, it is not likely that the states will make use of federal funds for this special population. Most did not.

In comparing federal expenditure for the gifted with that for the handicapped, Gallagher (Lyon, 1981) notes that the figure is 200 times greater than that for the gifted. While this difference in expenditure is probably not appropriate, it does reflect political reality. Gifted children are seen as a "cool" or long-range problem. "Budget and legislative decisions are made not on the basis of what might be of ultimate benefit to society, but on what is the greatest immediate crisis" (Lyon, 1981, p. 18E). Thus, although gifted children may be the best long-range investment in education, they do not pose any immediate problems. Nor do they have a "vocal constituency capable of extracting attention and dollars from public policymakers" (Lyon, 1981, p. 18E).

Most federal programs arise from external social forces rather than from the primary efforts of educators, contends Halperin (1980). The establishment of the National Defense Education Act and the National Science Foundation program after the launch of the Soviet Sputnik illustrate this. In addition, Halperin (1980) believes that the federal involvement in
education is not so much an effort to improve education, but more a means to an end, the end being some other, more specific goal. Some examples include federal support for the advancement of scientific research and development (usually in a specified, applied area), and for training skilled workers for a technological society, in order to strengthen national defense. "Education may be the mode of delivery but it is not the main organizing concept for, or the primary intended beneficiary of, federal programs" (p. 28).

Whitmore (1980) also maintains that interest in gifted children is associated with society's need to develop a larger supply of political or scientific leaders. She sees that, once these national goals have been met, however, interest usually diminishes, and general support of special educational programs for the gifted lessens or disappears. The flurry of post-Sputnik interest in the gifted and its subsequent decline exemplifies this phenomenon. Presently there is a new wave of interest in highly intelligent youngsters as the nation sees itself being left behind in the economic sphere.

Halperin (1980), in explaining federal educational policy, reviews salient features of American education, several of which very likely impinge upon the education of the gifted.

1. Education in the U.S. has many participants; there are thousands of agencies, organizations, and groups whose diverse needs and views must be taken into account. Thus it is difficult to mobilize support for or to estimate the consequences of public
2. Decision making is decentralized, which aggravates the conflict between professional educators and laymen, and among the levels of government--federal, state and local. Such questions as, Who should take what responsibility? For what quality of educational service? Rendered to whom? are subject to the shifting balances of power and influence among the two sets of potential opponents.

3. As a result of (1) and (2) above, there are strong elements of factionalism and fragmentation as well as conflicting goals in educational policy making.

4. Opposition among apparently equally qualified experts shapes and further complicates policy making.

This last, a reference to the lack of accord among experts, reiterates an important reason for fluctuating support, as mentioned in Chapter 1 of this study. (See Zettel, 1982, for further details of federal support for gifted education.)

State Support

Each state’s policy for gifted education has differed depending on its priorities. As consciousness has been raised regarding the special educational needs of the gifted, states have likewise raised their level of support. Before 1960, only six states had legislation that explicitly addressed the gifted (Grossi, 1980); in 1987, half of the states had mandated services (Houseman, 1987). Other figures show the states’ increasing
commitment (Houseman, 1987): 47 states have assigned one or more persons to a staff position in gifted and talented (up from 10 states reported by Marland, 1972); 19 states have certification requirements for teachers of the gifted, four others are in the process of developing certification requirements, and many of the remaining states require endorsement or graduate course work in gifted education; 40 states sponsor inservice training for teachers and administrators; and 28 states have a gifted education advisory committee that advises the state departments of education.

State funding. The figures below show that total state funding has increased 300% in 10 years.

1976-77: $56,206,608 (Mitchell, 1988)
1980-81: $126,530,674 (Mitchell, 1982)
1984-85: $193,567,130 (Mitchell, 1988) ¹
1986-87: $229,238,702 (Mitchell, 1988)

Although most states have increased their funding over this decade, the figures are deceptive; as more children have been identified for gifted programs, the per-pupil expenditure in many cases has actually decreased. For example, Fetterman (1988) reports that in California in 1983, the funding for gifted programs had increased $1.2 million over the 1980-81 funding,

¹ Total for Mitchell's 1984-1985 figures. The printed total differs.
while the number of students being served increased 40,000; this resulted in a decrease in spending for each student from $97 to $84.

Local Support

Although there is considerable information on the history of support for gifted education at the federal and state levels, there is virtually no compiled information on support at the local level. Many reports exist on individual programs. A recent search of the ERIC system revealed 695 entries for the terms "gifted" and "curriculum," most of which were handbooks, program descriptions, and guidelines for local programs. Many journal articles also report on local programs; however, few (if any) give details about local support.

In at least half of the states (those without mandated programs) the decision to have or not to have a program for the gifted is decided on a town by town basis (DeLisle, 1980, p. 13). Too often a local program is born of the enthusiasm of a dedicated teacher, and suffers a rapid demise when the teacher transfers or retires. Thus one indication of local support for a gifted program would be the longevity of the program. Some programs, such as the Cleveland Major Work program, have been in existence since the 1920s; Fairfax County, VA, Gifted Centers Program began in 1964. Both are proof that, in Cleveland and Fairfax County, at least, support is strong. Many other programs have sprung into existence within the past few years, and of
course, support would be difficult to determine. (A survey of the number and longevity of local programs for the gifted existing in the United States is beyond the scope of the present study. The reader is directed to sources such as Juntune, 1981 and 1986, and journals such as The Gifted Child Today.)

Important Issues in Gifted Education

A search of the literature reveals a number of issues in gifted education about which there are varying degrees of dissent among experts in the field. Some of this disagreement goes back nearly 70 years. For example, in the preface to the 1924 Yearbook of the National Society for the Study of Education, Passow (1989) quotes the Committee as disagreeing "on some of the fundamental principles involved in the education of gifted children" (p. 223). And he contends that, despite researchers' efforts, the field continues to disagree even at the present.

Six of the issues identified by researchers (e.g., Abraham, 1986; Gallagher, 1988; Goldberg, 1986a, 1986b; Passow, 1989; Renzulli, 1981;) as important or "key" issues about which there is disagreement or lack of consensus among the experts are as follows: Definition of the Term "Gifted"; Excellence vs. Equity; Identification of Children for Gifted Programs; Special Populations of Gifted (Underachievers, Minorities, Handicapped, Females, Very Young Gifted Children, Highly Gifted); Selection and Training of Teachers of the Gifted; and Curriculum for the
Gifted. These issues and some of the disagreement surrounding them are described below.

**Definition of the Term "Gifted"**

In the United States, the definitions which have the greatest effect are those generated by federal and state governments . . . . Wherever they appear, they are extremely important, for it is usually on the basis of these definitions that local programs are developed and identification procedures are formulated. Also, these definitions serve as a basis for determining funding patterns. (Cassidy & Johnson, 1986)

Unless the question of "what is giftedness" can be clearly answered, neither support nor defensible identification procedures or programs for the potentially gifted can be established. (Richert, Alvino, & McDonnel, 1982, p. 84)

Early definitions of the term "gifted" focused on a single number: the IQ score. Giftedness meant high intellectual ability, period. In recent years, however, the definition has become broader and more inclusive, and giftedness is perceived as multifaceted and comprised of a number of talents. Serving to increase the use of this expanding concept of giftedness is Marland's (1972) definition, mentioned above, which appears in federal legislation.

Stating a definition is one thing and making it operational is another, declares Gallagher (1979a). Referring to the federal definition of gifted as described above, he asks, for example, "What is leadership ability? Is it the same whether we think of the captain of a football team, of the leader of a debate team, or the leader of a student protest movement? What is the test or means for identifying such leadership characteristics?" (p. 30-
In the sciences, he notes, the definition of a concept is not the first thing that is done, but the last. There cannot be a better definition of "gifted" until more is known about the various aspects of giftedness, and questions such as those stated above are answered. Gallagher (1979b) proposes that "one of the most substantial contributions researchers in the 1980s could make to gifted education would be to further delineate the definition itself" (p. 81) in order to make it operational.

Renzulli has attempted to do this in his "Three-Ring" conception of giftedness. In this, he theorizes that giftedness is an interaction among three basic clusters of traits: above average ability, creativity, and task commitment. These are brought to bear on a potentially valuable area of performance (Renzulli, 1979). Children who demonstrate or are capable of developing this interaction can be considered as exhibiting gifted behavior, and thus require differentiated educational opportunities.

Advocating a developmental view or framework of giftedness is Feldman (1979). In this, the child proceeds through several stages, either general (such as logical reasoning) or more specific within fields (such as mathematics). Such a framework emphasizes progress within specific fields, and thus leads to identification criteria directly related to particular kinds of giftedness. The developmental framework "suggests that giftedness is as varied as the fields in which human beings pursue excellence" (p. 662).
Another definition is Sternberg's (1986a) triarchic theory of giftedness, which consists of three interrelated subtheories: componential, in which intelligence is related to the internal world of the individual; experiential, in which it is related to both the external and internal worlds of the individual; and contextual, in which it is related to the individual's external world (p. 240). As giftedness is a multidimensional attribute, the three subtheories must be considered collectively as well as individually in order to understand intelligent functioning.

Tannenbaum (1983) proposes a psychosocial definition of giftedness that views outstanding performance or excellence as produced by the overlapping of five factors: (a) general ability, or the "g" factor; (b) special ability; (c) nonintellective factors, such as ego strength, dedication, and willingness to sacrifice short-term satisfaction for long-term accomplishment; (d) environmental factors in the home, school and community; and (e) chance factors.

Tannenbaum (1983) believes that, because tests for intellective factors are imperfect, and because tests for intellective as well as nonintellective factors are appropriate mainly for consumers of knowledge rather than producers, the factors defy measurement. In view of the limited empirical evidence about giftedness and how to measure it, Tannenbaum (1983), voicing a minority viewpoint, asks whether it is even useful to have a definition; it may be merely an academic exercise.
Silverman (1986a) and Borland (1986a) make a significant observation. There seem to be two conceptions of giftedness: Silverman (1986a) terms them "masculine" and "feminine" while Borland (1986a) prefers "national resource" and "special education." The masculine or national resource definition views gifted children as an untapped national resource that should be identified and exploited for the national good. Giftedness is defined in terms of predictors of eminence, with a heavy emphasis on future achievement and productivity. Intelligence tests, because they do not correlate with adult achievement, are of little use with this definition. Gifted children should be provided with special programs so that they will be able to use their abilities for the good of the nation. Borland (1986a) asserts that, since Sputnik, the entire field of gifted education has been dominated by the national resource view.

The feminine or special education definition of giftedness, on the other hand, is concerned with the development of the child himself or herself. Intelligence tests are valuable as they can be used to discover hidden abilities. Gifted children should be provided with special programs because their educational needs are not met in the regular classroom.

It is clear from the literature on identification that the special education definition, with its "intelligent use of intelligence tests" (Borland, 1986a, p. 104), is not popular in the field. One view opposing the special education definition is that of Mertens (1983). She perceives a shift away from viewing
the gifted as potential contributors to our nation's resources (justifying the money spent on them) toward an attitude of "entitlement." In other words, the highly intelligent children in this group are entitled to special attention simply because their needs require it (the special education definition). Mertens feels this entitlement stance exhibits "a righteousness or defensiveness" (p. 14), the effect of which is to undermine public support for gifted programs.

**Gifted and Talented**

Another concern is the ambiguity of the terms "gifted" and "talented," which reflects the conceptual ambiguity of giftedness and talent (Gagne, 1985). After all the years of research on giftedness, the terms remain subject to various and sometimes conflicting definitions. For example, some educators and researchers (e.g., Marland, 1972; Sellin & Birch, 1981; Torrance, 1984) use the terms "gifted" and "talented" interchangeably. Others make a distinction between them (e.g., Cox, Daniel & Boston, 1985; Gagne, 1985; Gowan, 1979; Mistry & Rogoff, 1985; Renzulli, 1979).

Richert, Alvino and McDonnel (1982) speak of a "labyrinth of seemingly conflicting definitions in use in the United States" (p. 84). This is indeed a dilemma, since the accepted definition of giftedness determines both the procedures used to identify the gifted and the content of enrichment programs offered to those identified (Passow, 1981). Many researchers, including Hagen (1980), believe that it is therefore desirable "to develop a
clear and concise definition of giftedness in terms of the characteristics or behaviors that measure it" (p. 1).

**Excellence vs. Equity**

On one hand, man has demonstrated an almost insatiable demand for newness in the arts, sciences, and humanities, and has consequently lavished encouragement and fame on men of ideas. On the other hand, he has manifested a tenacious will to remain culturally conservative and has viewed the creative deviate with suspicion and disdain. (Tannenbaum, 1958, p. 24)

We might as well admit that it is not easy for us as believers in democracy to dwell on the differences in capacity between men. Democratic philosophy has tended to ignore such differences where possible, and to belittle them where it could not ignore them (Gardner, 1961, p. 14)

It would appear that [this] debate is futile...for the exclusive needs of the individual and those of society are not mutually compatible. (Hoyt & Hebeler, 1974), p. 51)

Although the excellence-equity dilemma occurs not so much within the field as between those in the field and those outside it, nevertheless it is an important influence in the education of the gifted. Along with the periodic waxing and waning of interest in the gifted described earlier in this chapter is a more insidious problem, noted above by Tannenbaum and Gardner. The problem, so prevalent in this country, is identified by Gallagher (1979a) as "America's love-hate relationship with the gifted" (p. 40), which has its origins in the peculiarly American fear of the development of an elite class, as well as in the conviction that education in a democracy must be entirely democratic. Gardner (1961) sees this not so much as fickleness,
but a public dilemma in which "the critical lines of tension in our society are between emphasis on individual performance and restraints on individual performance" (p. 33). Tannenbaum (1979) contends that, as a result, "no other special group of children has been alternately embraced and repelled with so much vigor by educators and laymen alike" (p. 5).

Gifted programs are seen by many as elitist and undemocratic, serving the children of the affluent and providing them with special privileges. On the other hand, many others perceive such programs as necessary to serve the educational needs of bright youngsters. "Special privilege" or "special need?" This dichotomy epitomizes the national dilemma (Fetterman, 1988). Thus, as Ewing (1976) points out, any programs developed to raise the public consciousness about the education of the gifted will need to have the power to overcome the mindset of those who view such programs as elitist.

Kellerman (1984) sees an anti-intellectual tendency as partly responsible for the dilemma. He believes that the notion that it is acceptable to be a little smart, but not too smart, is in part responsible for the current state of the educational system, dominated as it is by the lowest common denominator. He points out the hostility of many educators toward the gifted which, he maintains, reflects the greater social attitude. This anti-intellectual bias is seen not only in education in general, as reported by Hofstadter in his book, Anti-intellectualism in American life (1963); it also appears to exist even within the
As evidence of this ironic state of affairs, he cites the movement away from the concept of the gifted child as one possessing great intellectual potential toward the concept of the gifted child as one who is likely to be successful.

One result of the excellence-equity dilemma, according to McDaniel (1989), is an increasing impetus toward the mainstreaming of gifted students. Mainstreaming, he states, is policymakers' answer to the dilemma. He sees this decision as neither the easiest nor the most efficient, but one that "satisfies the American imperative for [educational]...excellence without elitism, equity without mediocrity" (p. 171). Thus, despite the acknowledged benefits for gifted children in special programs designed to meet their needs, McDaniel argues that education of the gifted should take place in the regular classroom because "in a democratic society, education itself should be democratic" (p. 171). He believes that educators of gifted children will subsequently become increasingly concerned with curriculum design and teaching strategies for educating these children in the regular classroom. Ultimately, the hoped-for result will be classrooms having truly differentiated instruction for all ability levels.

DeLeon and VandenBos (1985) as well as Passow (1989) note that those in the field need to be able to respond to issues regarding excellence-equity (or elitism-egalitarianism), such as that posed above by McDaniel. They warn that research is needed
in order to respond with convincing examples and data.

Identification of Children for Gifted Programs

Procedures for identifying gifted children are important for more than the individual children involved. These procedures determine who is served by gifted programs in the United States. (Richert, 1985, p. 68)

Identification has always been one of the most vexing of topics in gifted education . . . . We do not seem to be very close to consensus about the solution. (Treffinger, 1984, p. 147)

There is as much if not more disagreement among those in the field regarding issues of identification as there is about the definition of giftedness. To identify gifted students, educators argue for the traditional IQ test, for multiple selection criteria, for identifying specific talents rather than general abilities, for special criteria to identify minority and handicapped students, or for no identification at all.

IQ Tests

There are many procedures used to identify children for gifted programs. These include IQ tests (group and individual), achievement tests, aptitude tests, culture fair tests, creativity measures, case studies, inventories, characteristics approach, product evaluation, checklists, performance evaluation, interviews, and nomination by parents, teachers, peers and/or self. Of the various identification measures, the use of intelligence tests has created the most controversy. Borland (1986b) describes the current debate over the use of IQ tests as a "battle in which the belligerents on both sides see themselves
as the forces of enlightenment and their foes as not merely wrong, but damnably wrong" (p. 163). He pleads that, despite their limitations, IQ tests can and should be used in an informed manner. Stanley (1984) claims that, if only one test were used to identify intellectually gifted children through elementary school, a well-administered Stanford-Binet IQ test would be the best. Hagen (1980), and Robinson and Chamrad (1986) concur, stating that, because abilities of children below the age of nine are less distinctly differentiated than those of older persons, it is appropriate that the principal means of identifying gifted children be a relatively global one. In addition, although IQ tests may not assess all aspects of ability, they do test those that predict achievement in gifted programs. Robinson and Chamrad (1986) also point out that the educational system in this country focuses on intellectual attainment, and intelligence tests serve the needs of a system with such a focus. Finally, they state that "giftedness in young children reflects a promise of things to come, not a record of life accomplishment" (p. 161), and this "promise" can be detected by means of intelligence tests.

Silverman (1986a) finds that IQ tests are sensitive to developmental advancement, particularly in preschool and primary-aged children; thus they are especially useful in discovering giftedness in girls, as bright young girls are likely to be developmentally precocious. Consequently, she believes that the widespread negative feeling toward IQ tests actually
discriminates against the identification of young gifted females.

None of the researchers mentioned above believe that IQ scores should be used in isolation. One reason, pointed out by Silverman (1986b), is that, while intelligence tests are unlikely to generate false positives, they may generate false negatives. That is, children who obtain a high IQ test score are considered to be gifted, but those who do not obtain a high score may still be gifted. To guard against the false negatives, multiple identification criteria are urged.

Those arguing against the use of IQ scores for identification are opposed to using such tests as the only identification criterion. In addition, Wallach (1985) cites numerous studies in which little correlation exists between IQ scores and accomplishment.

Richert (1985) reports on a consensus that was reached by a panel of 20 experts meeting in conjunction with the National Report on Identification (see Richert, Alvino & McDonnel, 1982). The panel developed six principles that should underlie identification (p. 68-69):

1. Advocacy: identification should be designed in the best interests of all students.

2. Defensibility: procedures should be based on the best available research.

3. Equity: procedures should guarantee that no one is overlooked.
4. Pluralism: the broadest defensible definition of
giftedness should be used.

5. Comprehensiveness: as many gifted students as possible
should be identified and served.

6. Pragmatism: procedures should allow for the modification
and use of tools and resources on hand.

Richert, et al. (1982) believe that there are serious
limitations to using the IQ score for identification,
particularly in terms of pluralism, equity, and advocacy.

Sternberg (1986b) contends there is much more to
intellectual giftedness than a high IQ. While IQ tests do
measure some of the structures and processes underlying
intelligence as an internal trait, their measurement is
incomplete and, in some instances, misleading. He finds that
practical and synthetic intellectual skills, both essential to
"intelligence" in the fullest sense, are not measured by existing
tests. If IQ-like abilities were essential for intellectual
giftedness, then the existing tests would be satisfactory. But
such abilities are neither necessary nor sufficient for
intellectual giftedness, he believes, and they are important in
only one of at least three types of intellectual giftedness.

Silverman (1986b) attempts to bridge the gap between the
pro- and anti-IQ test groups. She points out that IQ tests
measure global abilities, and usually generate a single score.
Many in the field believe that intelligence, especially as it
relates to adult achievement, cannot be traced to a single
intellective factor, but only to competencies in specific domains. However, Silverman proposes that intelligence is composed of both global and specific factors, and that the relation between the two depends on the age of the individual tested: the younger the child, the more global the abilities; the older the child, the more his or her abilities are differentiated into specific aptitudes.

Interestingly enough, the proponents of IQ tests readily agree that the tests should not be used in isolation as identification measures, but in conjunction with other criteria in order to obtain a more comprehensive picture of the child's functioning. And most of those who argue against the use of IQ tests agree that they are useful as a measurement of some kinds of intellectual abilities, and as one of a number of identification criteria. One may wonder what the heated argument is all about.

Multiple Criteria

The trend in recent years has been, in theory at least, toward the use of multiple criteria, rather than a single score, to identify students for programs so as to accommodate the broadened definition of giftedness. In practice, though, it appears that despite widespread lip service paid to multiple selection criteria, school districts continue to use the achievement and IQ tests as the major selection criteria (Jenkins-Friedman, 1982). Although the use of numerous criteria for identification has been hailed by many educators as the
answer to claims of discrimination against various types of giftedness beyond high intellectual ability, some disadvantages exist. For instance, Feldman and Bratton (1972) report an interesting study on the use of multiple selection criteria. Investigators administered 18 different tests, all of which have been used as criteria for giftedness, to two fifth grade classes. As a result of this use of multiple selection criteria, all but five of the students tested could have been included in a gifted class. The authors raise the important but as yet unaddressed question: "What does equality of educational opportunity mean when the criteria for outstanding abilities are so varied that they could include all children?" (p. 492).

Another problem with the use of multiple criteria is that, if children are identified as "gifted" by means of varied criteria, then varied programs must be developed in order to serve their educational needs.

Richert (1985) found several questionable practices being employed in identification that she believes may ultimately undermine support for gifted programs. These include: several categories of giftedness are not being addressed; inequity exists in the identification of minorities; instruments are used to identify types of giftedness for which they were not designed; and multiple criteria are being combined inappropriately. Since each measure reveals a different ability, multiple measures should be used, but scores should not be combined; to do so defeats the purpose, which is to reveal diverse gifted abilities.
that need to be nurtured (Richert, et al., 1982). As Sisk (1987) asserts, the use of multiple criteria is an attempt to be more inclusive of gifted students in a program, rather than exclusive through the addition of multiple hurdles.

Renzulli's (1984) "Revolving Door Identification Model" (RDIM) employs multiple selection criteria to identify students for a talent pool rather than for a gifted program as such. In support of his model, Renzulli (1984) declares that "One of the major reasons why the gifted student movement has failed to gain acceptance . . . is that every time the movement becomes popular, we fall prey to the same ineffective identification methods that have been the target of so much criticism in the past" (p. 163). His answer to this problem is the RDIM. In this model, a talent pool of students is created, which consists of the top 15 - 20% of the school population in general ability. The pool includes not only those students who would be identified through IQ tests, but also many others who may be capable of developing creative productivity. Students in the talent pool are provided with general enrichment activities (Types I and II). When a student demonstrates readiness to delve deeply into an area of interest, he or she "revolves in" to advanced, or Type III, enrichment and/or acceleration experiences. When the project or study is completed, the student revolves out of the program back into the talent pool, allowing another student to revolve in. Thus many more children are served than could be in a traditional gifted program. (See Renzulli, Reis, & Smith, 1981, for a detailed
description of RDIM.) RDIM and other models using multiple selection criteria help to reduce concerns about elitism, and eliminate the "you have it or you don't" approach to giftedness.

Howard Gardner (1985) developed the theory of multiple intelligences in which six different intelligences are identified: linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, and personal. He proposes that at an early age, a child should have access to games, puzzles, and other activities that will reveal his or her intelligences to observers so that an intellectual profile can be developed. Then the child may be provided opportunities to move through the intellectual channels in which talent is evidenced.

In a similar vein, Wallach (1985) reasons that, because little association has been found between IQ scores and accomplishment, identification should be based on students' specific talents, not on their assumed general abilities. This involves no testing, but rather recognition of excellence in a specific field of accomplishment. Wallach maintains that this provides a better basis for selecting individuals for educational benefits than does testing for general cognitive processes. Wallach cites several studies of eminence in which achievement in a specific domain continues through the years, although he feels that further research is needed in which domain-specific achievements from childhood to professional maturity are tracked.
Special criteria

Where culturally diverse students are concerned, Maker (1989) reports that most of the authors in Maker and Schiever's (1989) book favor different identification measures and different criteria. Maker (1989) outlines three principles for the identification of culturally different students: (a) use multiple assessment procedures, including objective and subjective data from a variety of sources; (b) include culturally and linguistically appropriate instruments in the referral and testing process; and (c) use a case study approach (p. 295-296). Frasier (1989) describes several identification measures that can be used for culturally different students. These include Torrance Tests of Creative Thinking, Kaufman Assessment Battery for Children, Raven Standard (and Advanced) Progressive Matrices, and the Abbreviated Binet for Disadvantaged Children. In addition, the Baldwin Identification Matrix permits both objective and subjective information to be collected and used, and provides a method for delaying decision making until all data can be reviewed at once.

No identification needed

Birch (1984) argues against any and all identification measures. He claims that identification, even by means of multiple criteria, usually results in a single score, which is used to include or exclude a child from a program. This "identification --> placement" approach results in the child being placed in a group in which all the children identified are
treated with the same general concepts of what gifted children are presumed to need to learn. No attention is paid to the individual educational needs of each child. Birch believes this model should be replaced by an adaptive individualized education model that he terms "assess --> educate." In this, every child would be assessed prior to kindergarten, and appropriate educational experiences planned. Thus, as all children's needs are met, identification of and special programs for gifted students would no longer be required.

Special Populations of Gifted:

Underachievers, Minorities, Handicapped, Females, Very Young Gifted Children, Highly Gifted

This emphasis on [special subgroups of gifted] has been predicated on the assumption that there are unique characteristics of the individuals in these categories that warrant the consideration of alternative means of identification and program planning if the full spectrum of gifted and talented children are to be served. (Callahan, 1980, p. 16)

Because the literature on these sub-populations of gifted is vast, only a few research studies will be cited for each.

Underachieving gifted students

Underachievement and behavior problems of gifted children can be regarded as expressive symptoms of conflict between internal needs for acceptance, success, and meaningful learning and the external conditions of the classroom environment. Therefore, underachievement can be viewed as a social product, not just the problem of the child. (Whitmore, 1980, p. 194)

Of the various special populations addressed in this section, underachievement is perhaps the most baffling to
parents, teachers, and most likely the underachievers themselves. As with the definition of the term "gifted" itself, "underachievement" has various meanings. The underlying theme of most of the definitions is that of a discrepancy between a child's potential and performance.

How many gifted underachievers exist is not known; estimates range from 15 per cent to 50 per cent (Whitmore, 1980). As to who constitutes the population of underachievers, Bricklin and Bricklin (1967) assert that 80 per cent are boys. Dowdall and Colangelo (1982) conclude that because definitions vary so much, it is difficult to ascertain whether a student is in the category of underachieving gifted. Depending on which definition is used, a child may or may not be considered underachieving, thus making it impossible to state how many underachievers there are.

Gallagher (1985) cites Terman's investigations of 150 most successful and 150 least successful of the subjects in his longitudinal study. Four major characteristics differentiated the least successful from the most successful: (a) lack of self-confidence; (b) inability to persevere; (c) lack of integration to goals; and (4) feelings of inferiority (Gallagher, 1985, p. 416). Added to these are traits found by Whitmore (1980) to characterize underachievers: an IQ score of 140+; large discrepancy in quality between oral and written work; deep interest in a single subject or area; incomplete school assignments; total lack of interest in school or school phobia; inability to work with a group; belief that no one likes him or
her; and an inability to be motivated by means of usual motivating devices (p. 88). Further, gifted underachievers frequently exhibit certain behaviors responses, such as hostility or withdrawal (Whitmore, 1980). Raph, Goldberg and Passow (1966) maintain that underachievers often identify with the typically nonintellectual values that are so prevalent in our culture, believing that interest in high grades or intellectual pursuits make one a "grind."

Rimm (1986) finds that, In addition to easily observable characteristics, such as lack of organization and study skills, many children exhibit characteristics that are polar opposites: they may be slow and perfectionistic or quick and careless; they may be voracious readers, or they may be non-readers; they may be highly creative thinkers, or dull and concrete in their thinking; they may be lonely and withdrawn, or bossy and aggressive. Gallagher (1985) adds that they fear failure at the same time they fear success.

Many intervention programs have been tried in cases of underachieving gifted students, and most have centered on improving students' self-esteem. One of the best known is Whitmore's (1980) report of the special class for underachievers that she conducted for two years in Cupertino, CA. The goals of this program centered on the belief that the social and emotional needs of bright underachievers must be given priority in curriculum and instruction. Whitmore considered this to be essential, as she found that the gifted underachieving students
could respond to instruction only to the degree that they were free from damaging social and emotional problems.

Gallagher (1985) reports on two strategies that have been used to help underachievers: counseling of the student and his or her family, and special classroom adaptations. Either or both of these interventions must be used intensively in order to make significant gains, and even then, claim Dowdall and Colangelo (1982), they may not be particularly effective. Fearn (1982) proposes that, since underachievers often exhibit a deficit in basic skills, intervention should take the form of accelerated basic skills instruction.

Whatever form intervention takes, researchers agree that early identification and programming for gifted underachievers is of critical importance.

Minority Gifted Students

Provision of appropriate services for students from special populations is crucial to the survival of programs for gifted students in the 1990s and beyond. (Maker & Schiever, 1989, p. xvii)

... Identifying and developing talent among the disadvantaged is not just a question of equal opportunity but also an excellent investment ... The talents they value and develop can complement what mainstream American culture tends to reward in our schools. (Richert, et al., 1982, p. 130)

The term "minority" includes those of ethnic, cultural, and racial backgrounds that differ from the majority population in the United States. The chief minority groups in this country, Hispanics, Blacks, Asian-Americans, and American Indians, also differ vastly from each other. Each of the minority populations
will be discussed briefly in this section.

**Hispanics.** This population, soon expected to be the country's largest minority group (Maker & Schiever, 1989), is not homogeneous, and care must be taken not to generalize. However, Udall (1989) maintains that gifted Hispanic students do tend to share certain characteristics based on cultural values. These include: (a) "being" rather than "doing"; (b) limited importance placed on material possessions; (c) oriented in the present time; (d) group work and cooperation; (e) primary importance of family; (f) fatalistic; (g) major importance of tradition (J. Nazzaro cited in Udall, 1989, p. 43). An eighth cultural value, that of male dominance, also might be added. These students also may share the culture of poverty.

Maker & Schiever (1989) p. 69-78) cite several key points concerning educational implications for Hispanic students:

1. Because Hispanics are viewed as an underclass, not only by Anglos but also frequently by themselves, educators tend to see them from a remedial or deficit perspective, and special programs focus on their weaknesses. Strengths should be recognized, and skills deficits should be developed in a meaningful context.

2. Gifted Hispanic students should be encouraged to develop abilities valued by themselves and by their culture as well as abilities needed to be successful in a mainstream culture.

3. Bilingualism should be viewed as a strength, and should be a program focus.
4. Since great value is placed on personal and family relationships, strong and continued involvement of the family in the educational process is imperative.

5. Role models and mentorship programs are particularly effective. This is true especially for gifted Hispanic girls; because of male dominance in Hispanic families, girls are neither encouraged to excel academically nor to seek careers outside the home.

6. Non-competitive learning strategies, such as cooperative learning, should be incorporated into a program to build on the collaborative dynamics of the Hispanic culture.

Maker and Schiefer (1989) caution that care must be taken in generalizing from the small amount of information that exists about gifted Hispanic students. Thus, as with other gifted students, the individual and his or her needs must be considered.

Blacks. Three common elements seem define the Black population as a group: (a) physical features, (b) a heritage of denied opportunities (Maker, 1989), and (c) "lack of cultural rootedness" (Baldwin, 1989, p. 237).

Perhaps the most important and obvious feature of Black students is that the population is not homogeneous (even less so than the Hispanic population), mainly due to vast differences in socio-economic status. For example, Baldwin (1987) cites Malcom's report that 48% of all Black children live in poverty. Frasier (1989) identifies four socioeconomic levels, ranging from level A (high socioeconomic environment, well-educated parents,
self confident, high aspirations) to level D (very low socioeconomic environment, limited educational tradition, unsupportive home environment, low self-concept, limited aspirations). Frasier (1989) reports that a great deal of attention has been focused on level D children, and to many educators, it is these children who typify "the Black child." She states that the children most likely to be overlooked for inclusion in gifted programs are those within levels B and C, and cautions that the indiscriminate application of stereotypic descriptors to all members of a minority group must be avoided.

As Baldwin (1987) points out, "a single answer regarding . . . required curriculum cannot be generalized to all black students" (p. 180). The nine contributors to Maker and Schiever's (1989) section on Blacks, however, seem to agree that several general curriculum goals are appropriate; (a) develop individual strengths, such as memory, creativity, and symbolic skills (Sisk, 1987); (b) develop the basic culture of the child; (c) develop the abilities needed for success in the mainstream culture (Maker & Schiever, 1989); (d) develop a vision of possibilities through exposure to all possibilities of interest, including career choices; (e) help them deal with being Black and gifted (Cohen, 1989); and (f) teach them to "take charge of their destiny" (Grant, 1989, p. 276).

Other curricular possibilities include the Program of Assessment, Diagnosis and Instruction (PADI), cited by Frasier (1989). PADI identifies potentially gifted students who lack
certain basic skills and instructs them in these skills so that they may achieve in a regular program for the gifted.

**Asian-Americans.** Asian-Americans are a relatively new concern of educators of the gifted. "Asian-American" is an umbrella term for many different ethnic groups, who differ within and across ethnic groups in culture, language, social class, educational background, and level of acculturation (Maker & Schiever, 1989). While most are foreign-born, there are many whose families have been in the United States for three or four generations. Moreover, while some Asian-American groups speak mostly English, others speak an Asian language; and people within the same ethnic group may speak different languages or dialects (Kitano, 1989). Clearly, the Asian-American population is highly diverse.

Asian-American usually excel in their work; they display good academic skills; they have excellent problem-solving abilities (Chen, 1989, p. 155); many have highly developed mathematical skills (Gallagher, 1989); they value education, hard work, personal responsibility, and they respect authority (Wong & Wong, 1989, p. 183-184). Viewed by many as the "model minority," it would seem that Asian-Americans are a success story, encountering none of the problems of Hispanics or Blacks. But a number of psychologists have criticized the term "model minority" as a damaging stereotype, pointing out that these children are not immune from problems, albeit different from other minorities. For example, Gallagher (1989) relates that at the same time
Asian-Americans excel in mathematics, many have deficiencies in oral and written language, even among second, third, and fourth generations. This leads to weaknesses in the humanities and other areas where such communication abilities are essential (Maker & Schiever, 1989), with the result that often Asian-Americans are channeled into science, math, and technology careers (Woo, 1989).

Hasegawa (1989) recommends that Asian-American students be carefully considered on an individual basis, including such matters as (a) whether or not the student has been raised as an American; (b) the student's English language background; and (c) the student's reputation for outstanding work and any attendant pressures; in addition, the teacher should be aware of the bias of mathematical and science prowess (p. 195). Hasegawa (1989) also concurs with Kitano's suggestion that Asian-American students need an environment conducive to creativity, divergent thinking (p. 195), and risk-taking in order to counterbalance authoritarian cultural influences (Larson, 1989, p. 199). Communication skills are a must in any program for gifted Asian-American students (Tanaka, 1989; Woo, 1989). Finally, an important affective goal for these students is the fostering of biculturalism, and particularly acceptance of themselves as being different (Maker and Schiever, 1989).

American Indians. Consisting of more than 170 different tribes, each with its own culture, traditions, educational levels, and degree of acculturation, American Indians (including
Eskimos and Aleuts) constitute a relatively small but complex minority (Maker & Schiever, 1989).

Montgomery (1989) identified factors that describe three types of gifted American Indian students: (a) the family ties factor (has tribal loyalty, respects elders, values tribal culture and tradition); (b) the dominant culture factor (scores high on achievement tests, does well in school); and (c) the leadership factor (can influence others, helps solve problems, and is respected by peers). Kirschenbaum (1989) reports Tonemah and Brittan’s finding that fluent bilingual ability is also a characteristic of gifted Indian students.

Most of the tribes are non-competitive, points out Locke (The American Indian: Too few identified, 1982), and because of a strong communal sense, do not wish to isolate their children or put them in special categories, or emphasize individual differences (Kirschenbaum, 1989), making it difficult for educators to provide special programs for them.

**Handicapped gifted students**

Once a student is labeled, emphasis is on the limitation(s) imposed by the disability, rather than on the search for the individual’s strengths and potential. (Mallis & Alexander, 1979, p. 5)

Although a seeming paradox, gifted students can be handicapped; there are gifted children who are emotionally disturbed, learning disabled, blind, deaf, or otherwise physically handicapped.

Handicapping conditions include sensory as well as physical deficits, and the effects of the various handicapping conditions
range from mild to severe; thus handicapped-gifted children share few characteristics in common.

As a result of their handicapping conditions, gifted handicapped children may have been deprived of many of the normal early childhood experiences, such as positive interaction with peers, that serve to develop self-concept. Further, Maker (1977) explains that the discovery of a handicap frequently lowers the expectations of nearly everyone—including the handicapped person himself or herself—for the individual in all areas, regardless of his or her giftedness. If school-aged handicapped gifted children are in a special program, it is very likely a remedial program focusing on their deficits rather than their strengths. In such a program, they may receive significantly less or virtually no stimulation of their higher cognitive abilities (Whitmore, 1985). For these and other reasons, handicapped gifted students are likely to have difficulty developing a positive and realistic self-concept. Thus a primary goal of a program for gifted handicapped students should be to help them to develop a positive self-concept.

Another important goal, according to Davis and Rimm (1985), is to reduce communication limitations. This can be accomplished by means of technological aids, including computers.

A third goal is the teaching of high level, abstract thinking skills, such as problem solving, critical thinking, classification, generalization, analysis, synthesis, and evaluation. These children may have limited sensory input; thus
the higher level skills must be developed in gifted handicapped children even more than in other gifted children (Davis & Rimm, 1985).

**Gifted Females**

What happens to the gifted girl? Why doesn't she grow up to be a gifted adult? (Silverman, 1986a, p. 44)

Despite recent efforts to increase the participation of women in advanced educational training and high-status professional fields, women in general, and gifted women in particular, are still underrepresented in many high-level educational and occupational settings. (Eccles, 1985. p. 251)

Although some researchers do not include gifted females in the category of Special Populations of Gifted, it may be argued that females should be included by virtue of their special needs and characteristics, as described by Callahan (1979) at the beginning of this section on Special Populations. For, despite the fact that females constitute 50% of the population of gifted children, it is males who vastly predominate in the group of adults identified as gifted.

"Underachievement among gifted women is a fact" (Kerr, 1985, p. 166), and is the most important—and perhaps the only—differentiating characteristic of gifted females. Thus one might question why gifted females are treated separately from underachievers. Davis and Rimm (1985) differentiate between individual underachievement, such as that described in the discussion of underachievers at the beginning of this section, and cultural underachievement, which characterizes the underachievement of gifted females. "Underachievers" typically
exhibit certain identifying characteristics; however, gifted girls usually do not manifest these characteristics. In fact, they are apt to excel throughout school, getting high grades and test scores. The underachievement occurs not so much in the early years, when girls usually surpass boys in grades in school, but later, when males overtake and quickly leave females behind in professional status and accomplishment (Reis, 1987). Since this type of underachievement likely has its roots in the early experiences of gifted girls, the school is in a unique position to help them understand and overcome it.

Fox (1982) proposed that girls be brought together to explore career opportunities, and to talk with women who are successfully coping with the demands of both family and career. They may need extra support in order to counteract the stereotypic thinking about women's abilities that exists among males, parents, counselors, teachers, and even the females themselves (p. 170). Further, since many of the barriers to female achievement include low self-perceptions and self-expectations (Davis & Rimm, 1985), which very likely have their beginnings at an early age (Cramer, 1989), intervention at the elementary level is appropriate. As Eccles (1985) points out, more research is needed on the educational and counseling programs that would be most effective in facilitating the development of gifted females' talents (p. 289).

Very Young Gifted Children

There is an immediate need for sustained, systematic inquiry into the issues related to the identification and development of intellectually gifted children,
particularly in their early years. (Whitmore, 1985)

The earlier gifted children are identified and provided with appropriate programming, the better . . . By the time the child turns six, the entrenchment of attitudes and behaviors makes them difficult to modify. (Karnes, Schwdel & Kemp, 1985, p. 204)

Perhaps the most important characteristic of many very young gifted children is the discrepancy between their mental development and their physical and social development (e.g., Roeper, 1977). This discrepancy frequently leads to problems as the children either find themselves advanced in mental ability in comparison with their agemates, or deficient in physical or social ability in comparison with their older mental peers. Other characteristics of very young gifted children include the same characteristics of older gifted children, such as those listed by Alvino (1985) and Martinson (1970).

In their longitudinal study, Roedell, Jackson and Robinson (1980) find that the difference between young gifted children and older children is not so much a qualitative difference as a quantitative one: bright young children are able to do things that older children can do. For example, a high score on an intelligence test indicates that the young child has mastered tasks typically mastered by older children. In view of this, they suggest that, for young children, the term "intellectually advanced" is more appropriate than "intellectually superior."

Early intervention is highly important for the development of young children's gifts and talents. In order to identify these children, Johnson (1983) suggests that the preschool
environment be structured so that the gifts and talents of individual children can emerge. This environment should be enriched with a great variety of activities which encourage creativity and higher cognitive processes, promote inquiry, problem solving, and affective development. Parke and Ness (1988) urge that play, exploration, and manipulation be emphasized.

Roeper (1977) cautions that formal learning should not be imposed too early on the very young gifted child. The child may accept it, but it will be to satisfy someone else’s standards, and this may lead to emotional battles. For example, to please the mother, child becomes toilet trained, and he may learn for the same reason. Or, to punish his mother, he refuses to be toilet trained, and he may also refuse to learn. The young child’s learning should be joyful and self-initiated. Parke and Ness (1988) concur, emphasizing that the child’s needs and interests should form the basis of appropriate learning experiences.

The Highly Gifted

For the highly gifted, the discrepancy between the child’s abilities and the ordinary school environment, with its peer group of same-age children, is so strong that maladjustment is very likely. (Janos & Robinson, 1985)

To have the intelligence of an adult and the emotions of a child combined in a childish body is to encounter certain difficulties. (Hollingworth, 1942, p. 282)

What some would call "highly gifted," others term "prodigy." One definition of the highly or exceptionally gifted is an
"individual of extraordinarily superior general intellectual ability, operationalized as having attained IQ at least four standard deviations above the mean on the Stanford-Binet" (Janos & Robinson, 1985, p. 173). A prodigy, on the other hand, is a child of extreme talent, one who is "performing at the level of an adult professional in a cognitively demanding field before the age of ten" (Feldman with Goldsmith, 1986). It is the highly gifted child, IQ 164+, rather than the prodigy, who is the focus of this discussion.

Other than an IQ score of 164+, profiles of highly gifted children show no singular pattern, according to McGuffog, Feiring, and Lewis (1987), differing from each other in as many ways as do children of normal intelligence. Hollingworth (1942), however, finds some important differences between moderately and highly gifted children. For example, she maintains that as the IQ increases, children become increasingly bored with school work if kept with their agemates. Also, because of their advanced development, they have difficulty understanding other children, and vice versa, and thus it becomes increasingly difficult for them to play with their agemates. As deviation from the norm increases, special problems of development occur, which are correlated with personal isolation.

As mentioned above, the highly gifted seem to exhibit no characteristics in common except an IQ score. Thus it becomes difficult to provide a program for the "highly gifted."
However, some suggestions for programs come from former members of the Terman Classes at Leta Hollingworth's Speyer School (White & Renzulli, 1987). This school for highly gifted children, which existed for five years (1936-1940) in New York City, emphasized enrichment over acceleration. The eight former students, interviewed in depth by White, included in their recommendations: (a) placement with intellectual peers (other researchers, e.g., Kline and Meckstroth, 1985, concur); (b) provision of learning experiences that challenge their intellectual abilities, and encourage discovery and participation; (c) early identification; (d) exposure to art, music, drama, dance, language; (e) exposure to working professionals; (f) opportunity for independent work; and (g) teaching of research skills and provision of opportunities to use them (White & Renzulli, 1987, p. 93).

Sisk (1987) advises that in programs specifically for the highly gifted, the pacing of instruction must be quick, as they become impatient. Abstract ideas and higher level of thinking need to be emphasized. Kline and Meckstroth (1985) suggest "focused acceleration" for exceptionally gifted students, in which they are accelerated in subject areas based on specific assessment.

In the affective domain, emphasis should be on helping them understand their giftedness. Because alienation is a very real possibility for highly gifted children, Kline and Meckstroth (1985) maintain that regular contact with intellectual peers is
essential. And, since most of their dealings in life will be with people of lesser ability, it is important that they achieve the coping skills for expressing their feelings in a socially acceptable ways (Sisk, 1987, p. 251-252), and learn to "suffer fools gladly" (Hollingworth, 1942, p. 259-260).

Selection and Training of Teachers for the Gifted

There is still more opinion than fact about the teacher of the gifted and talented. (Gold, 1979, p. 288)

The field of gifted education does not have a comprehensive, integrated, and useful model that characterizes the superior gifted education teacher. (Whitlock & DuCette, 1989, p. 16)

Perhaps the best approach [to identifying competencies] is to be guided by the conception of the person . . . what the teacher needs to be, to know, and to be able to do. (Lindsey, 1980, p. 37)

In their study, Fleming and Takacs (1983) discovered six patterns in gifted/talented teacher education: (a) personal attributes at the entry level; (b) professional attributes at the point of exit; (c) competency based systems; (d) processes as the key teacher training element; (e) differentiating sub-groups of gifted; and (f) roles and functions to be served. The first five of these patterns, categorized by their particular emphasis, form the basis of this section of the literature review.

Personal Attributes or Characteristics at Entry Level

A number of lists of personal characteristics desirable for teachers of the gifted can be found in the literature. These lists tend to include, as Maker (1975) puts it, "all the virtues
of mankind" (p. 11); and anyone possessing all of these characteristics would most likely not be teaching, but would instead occupy a position at the highest executive or professional level (Gallagher, 1985). However, Maker (1975) identifies two "absolute necessities" for teachers of the gifted: a high degree of intelligence, and a strong self-concept.

There seems to be little disagreement among researchers that high intelligence is a necessity for teachers of the gifted. The main disagreement occurs in answers to the question, "Should a teacher of the gifted also be gifted?" A number of researchers (e.g., Cushenberry, 1974; Feldhusen, 1986; Fleming & Takacs, 1983; Mulhern and Ward, 1983;) believe that the teachers should also be gifted. Whitmore (1980), for example, states that teachers of the gifted should themselves be gifted, even though "it seems to grate against the democratic American spirit not to hear an assertion that all 'good' teachers are equally capable of teaching all types of learners" (p. 401). Kenneth R. Seeley (personal communication, Sept. 9, 1983) writes that, since the modeling process is important to children's learning, gifted youngsters may need a highly intelligent role model. Ward (1980) states that "only the gifted teacher can lead the gifted child through experiences commensurate with his capacity" (p. 113). "It takes one to know one," comments Bray (1979), who further argues that putting an average IQ teacher with gifted children "is an educational crime" (p. 50).
According to other writers, however, intellectual giftedness is not a characteristic required of teachers of the gifted. For example, in Stapp's (1987) study, nearly 900 subjects ranked "Is very intellectual" 27th of 30 characteristics necessary for teachers of the gifted in that state. In another example, Whitlock and DuCette (1989), in their Competency Model of the Outstanding Teachers of the Gifted, did not select high intelligence as a competency for the model. Hershey (1979) concluded that, while "the 'entering' criteria for teachers of the intellectually gifted must be a high degree of intelligence... the assumption does not insist that the teacher must be intellectually gifted" (p. 12).

Perhaps one reason why gifted youngsters are said not to "need" intellectually gifted teachers may be simply because such teachers are so rare. Worcester (1981) maintains that there are relatively few gifted people in education, especially elementary education. Thus it is unlikely that the small number of teachers who are in the upper 3 to 5% of the population in intellectual ability could be spread out over the country in order to serve the needs of thousands of gifted students.

In view of the foregoing discussion, it might be wished that researchers had defined "gifted," "very intellectual," "superior mental ability," "high degree of intelligence," "mental superiority," and other references to intellectual ability; some writers’ use of a term does imply "giftedness" while others’ use of the same term apparently does not imply "giftedness."
A strong self concept is the second most strongly recommended characteristic. It is necessary that teachers of the gifted have the self-confidence to work with students who may know more about a particular subject, who may correct the teacher, and who may be able to learn more quickly (Maker, 1975).

Closely related to a high intellectual level is a love of learning and a wide range of interests. Gowan (1977) writes that "we cannot instruct gifted children competently and effectively unless we continue to develop ourselves" (p. 155). Dettmer (1986) points out that gifted youngsters "tend to function on the leading edge of information assimilation, intellectual exploration, and creative production" (p. 131). Thus it is critical that their teachers be life-long learners.

Seeley (1989) reports other teacher characteristics cited by authorities; these include a favorable attitude toward gifted children, flexibility, a sense of humor, a facilitator rather than a director of learning, willingness to devote extra time to teaching, understanding of individual differences, and wide background of general knowledge. While these traits would seem appropriate for all teachers, they are listed as essential for teachers of the gifted.

Interestingly, "Respect for students" was the only characteristic necessary for teachers of the gifted which was ranked among the ten most important by all groups (principals, teachers of the gifted, and gifted elementary age students--nearly 900 people in all) in Stapp's (1987) study.
Professional Attributes at the Point of Exit

Because personal characteristics are relatively stable over time, some researchers suggest that the focus be instead on teacher competencies, "modifiable aspects of human behavior" (Feldhusen, undated), which can be changed over time through training. Since needed competencies can be developed through training, there seems to be virtually unanimous agreement among researchers that teachers of the gifted need special training, preferably at the graduate level. Over 130 institutions of higher learning in the U.S. now offer at least a master's degree and 47 offer a doctorate with major or emphasis in gifted education, an increase of approximately 30% in two years (Parker & Karnes, 1987).

Recommendations for training vary from the general to the specific. For example, Gallagher (1985) suggests that the usual training program consists of five broad program areas: (a) understanding the development of gifted students and the major school adaptations made for them; (b) understanding how children generate new knowledge, and the special capabilities of gifted students for such knowledge generation; (c) knowledge in depth in a given content field; (d) the ability to understand social, emotional and educational needs of the gifted; and (e) supervised teaching on site.

More specific are the findings of the Committee on Graduate Degree Programs of the National Association for Gifted Children (NAGC), which are reported by Feldhusen and Bruch (1984). The
committee suggests that curriculum for teachers of the gifted include 12 topics in gifted education. The committee emphasizes that the curriculum should also provide opportunities for students to teach gifted children, develop instructional materials, and plan and conduct in-service programs. In addition, it is recommended that students develop discipline specialization as well as an area of concentration. Interdisciplinary specialization is encouraged in content and concentration areas.

Mertens (1983) concurs with this last recommendation, insisting that there is a great need in teacher training for an increased emphasis on academic content areas. The need for content expertise is crucial in gifted education, since teachers cannot provide appropriate enrichment if their knowledge is limited by an elementary textbook.

Competency Based Systems

The elements of Lindsey's (1980) competency-based program for training teachers of the gifted are in brief: (a) competencies are based on analysis of professional roles and theoretical responsibilities, and are described in terms of outcomes expected; (b) the instructional program is derived from and linked to specified competencies, and progress is determined by demonstrated competence; (c) evaluation is related to demonstration of defined competency standards; and (d) results are fed back into the system.

Processes
In this model, process skills, that is, learning how to learn, are considered to be the goal for both teachers of the gifted and gifted students themselves. These skills tend to supersede products as outcomes (Lindsey, 1980).

**Differentiating sub-groups of gifted**

Maker (1975) proposes that entry level characteristics and exit level competencies desirable for teachers of the gifted may differ according to the type of gifted program. For example, should the itinerant teacher in a two-hour a week pull-out program for gifted/talented students possess the same characteristics and competencies as the teacher in a full-time program for the academically gifted? The age of the students may also be a determining factor; does the teacher of primary school gifted children need the same characteristics and competencies as does the teacher of secondary school gifted students? Special populations of gifted students, such as underachievers, minorities, and the handicapped, may need teachers with yet other characteristics, and certainly musically or artistically talented students would need teachers highly competent in music or art.

Addressing this dilemma, Maker (1982) suggests that teachers be selected for gifted programs on one of two bases: (a) decide on the curricular approach and then choose the teachers who have the skills and personal characteristics to implement the method; or (b) choose the teacher because of certain personal or professional traits and then have that person develop a curricular approach.
Curriculum for the Gifted

Danger lies in the current cult of creativity and self-expression, which serves as a pretext for not teaching solid knowledge even to gifted students. Behind this is the false assumption that gifted persons produce everything out of nothing, or out of themselves, without having learned anything. The fact is that a gifted person needs even more knowledge than others before he or she can hope to make a significant contribution to his or her field. (Paul Oskar Kristeller in Cox, Daniel, & Boston, 1985, p. 26)

If programs for the gifted are to survive, educators must devise acceptable answers to some of the criticisms of our curricula. (Maker, 1986, p. 160)

After a decade of attention focused on identification and program development, curriculum is now a major concern, maintains Feldhusen (1986). VanTassel-Baska (1988) suggests that a shift in thinking is occurring as a result of the numerous studies cataloging the poor performance of American students in comparison with students in other industrialized nations. Since we are on the brink of change, she declares that educators of the gifted need to take a strong role in defining what the curriculum should be, the process by which it is formulated, and the products or outcomes to be anticipated. "It is through appropriate curriculum design and delivery for the top 5 percent of the population that the whole of curriculum can be upgraded and enhanced" (p. 3).

There are a number of areas of disagreement among the experts in the field about curriculum for the gifted, as Passow (1989) points out.

Differentiation
The term "differentiated" is frequently used to describe curriculum that is appropriate for the gifted. But there is much more discussion than research on what constitutes a "differentiated curriculum" (Passow, 1989, p. 224). Kaplan (1986) finds the term nebulous, and refers to Gallagher's claim that research on differentiated curriculum development is essential in order to "clarify and extend the present minimal level of curriculum for the gifted" (p. 122). After describing six perspectives that have been used to clarify the meaning of differentiated, Kaplan concludes that there is no single definition of the term; it is actually a multistage definition, with each stage offering the opportunity to define and refine the concept.

Weiss and Gallagher (1982) suggest that the proof of a useful differentiated curriculum is that the material is significant enough to justify its place in the learning setting, the significance to be determined by scholars in the respective fields.

Ward (1980), considered the founder of the concept of differential education for the gifted, offers ten propositions and their corollaries that take into account the characteristics of gifted children as well as the social roles they likely will take as adults.

VanTassel-Baska (1988) lists three characteristics that particularly distinguish gifted from average learners; the capacity to (a) learn at faster rates; (b) to find, solve and act
on problems more readily; and (c) to manipulate abstract ideas and make connections (p. 54). As does Ward (1980, above), she explains differentiated curriculum as being based on the different characteristics and needs of gifted learners.

A related area of interest is how curriculum can be differentiated for gifted students. Several researchers offer suggestions in this area. Gallagher (1985) presents in-depth methods in each subject area for modifying content for gifted students. Sisk (1987) recommends process and strategy modifications appropriate for the gifted. Maker (1982), in a series of charts, links the characteristics of the gifted with curriculum modifications in content, processes and methods, products resulting from the learning activities, and the learning environment.

Enrichment or Acceleration

Another area of debate is whether the curriculum should emphasize enrichment or acceleration. VanTassel-Baska (1986) relates the advantages of acceleration, such as that it promotes motivation, confidence and scholarship, prevents mental laziness, and permits earlier completion of professional training (with the accompanying reduction of the cost of education). Referring to an extensive study by Daurio, Stanley (1979) maintains that acceleration is highly successful, with few if any harmful effects.

Disadvantages cited by VanTassel-Baska (1986) include the point that it goes counter to the current structure of the
schools, it is misinterpreted to mean only "more, faster," and it challenges two main purposes of the school, which are to perpetuate the democratic ideal and to promote the idea that socialization is more important than individual learning (p. 189).

Regarding acceleration, educators frequently stress that all children should be allowed to progress at their own pace. Gallagher (1985) points out a "puzzling contradiction" however: while practically everyone agrees with this, practically no one does it (p. 364).

The concept of enrichment is frequently misunderstood and misused by many educators, who classify as "enrichment" as anything outside of the regular curriculum, whether it be free reading, building gingerbread houses, playing chess, or viewing a video. Sisk (1987) states that "effective enrichment is appropriate and realistic when defined as the addition of different areas of learning not normally found in the curriculum and for difficult or more in-depth material" (p. 79).

There need not be a conflict between acceleration and enrichment, maintains Fox (1979). If enrichment is defined as learning experiences that develop higher thought processes in a subject area, and acceleration defined as the adjustment of learning time to meet the individual capabilities of the students, then the two terms are complementary rather than conflicting, and they are both necessary to meet the educational needs of gifted students (p. 106).
Content

Maker (1986) argues that content has often been neglected in favor of emphasis on process. She quotes Gallagher as saying, "Gifted children need something to think about!" (p. 152). The teaching process must be combined with the teaching of important ideas and information. VanTassel-Baska (1988) offers five criteria for use in selecting appropriate content; it must be (a) important and worthwhile; (b) conceptually complex; (c) relevant; (d) of interest to gifted students; and (e) able to be taught effectively by the instructor (p. 56). She notes that outstanding curriculum efforts of the 1960s, such as BSCS Biology, IPS science, and Man--A Course of Study (MACOS), in retrospect so appropriate for gifted students, were eventually discarded because they were not successful with all students. This circumstance seems to confirm Maker's (1986) assertion that the most significant criterion for curriculum for the gifted is appropriateness. (p. 120).

Conclusion

The researcher has determined that disagreement has existed among those in the field on a number of issues, beginning with the very definition of the term "gifted." These disagreements, according to researchers such as DeLeon and VandenBos (1985) and Halperin (1980), may be a partial explanation of why support for gifted education has been inconsistent and limited. A study is needed which attempts to encourage consensus among experts on
what issues they consider to be most important to the field, and what actions they believe should be taken on these issues. The Delphi Technique is well suited to eliciting the opinions of a group of experts and encouraging consensus on issues, while the Policy Delphi can generate varying views on policy issues. Both techniques are explained in the following chapter.
CHAPTER 3
METHOD AND PROCEDURES

Method

The Delphi technique, developed at RAND Corporation in the 1950s by Olaf Helmer and Norman Dalkey, is a "method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem" (Linstone & Turoff, 1975, p. 3). Brown (1968) describes it further as a technique which:

elicits opinions with the object of obtaining a group response of a panel of experts. Delphi replaces direct confrontation and debate by a carefully planned, orderly program of sequential individual interrogations usually conducted by questionnaires. The series of questionnaires is interspersed with feedback derived from the respondents .... The technique puts the emphasis on informed judgment. It attempts to improve the panel or committee approach by subjecting the views of individual experts to each other's criticism in ways that avoid face to face confrontation and provide anonymity of opinion and of arguments advanced in defense of those opinions. (p. 3)

The main objective of the traditional Delphi (as described above) is to generate "an informed consensus insulated from the forces of face-to-face interaction" (Isaac & Michael, 1981).

A variation of the Delphi suitable for dealing with social questions is the Policy Delphi. Unlike the original Delphi, a Policy Delphi does not attempt to produce consensus among a group of experts, but instead "seeks to generate the strongest possible opposing views on the potential resolutions of...major policy issue(s)" (Turoff, 1975, p. 84). Strauss and Zeigler (1975)
explain a Policy Delphi as one which "defines a range of answers or alternatives to a current or anticipated policy problem" (p. 253). This organized research methodology correlates views and information pertaining to a policy area, and allows respondents representing such views an opportunity to react to and assess differing viewpoints (Lowenstein, 1989).

Since the Policy Delphi deals with ideas more than data and facts, it is not realistic to expect consensus after three or four rounds. Instead, the clarification and definition of the panelists' differing opinions and views becomes a desirable goal (Rauch, 1979).

This goal is accomplished through successive iterations. At the beginning of each round, the results of the previous round are summarized and fed back to the panel, and they are asked to reassess their answers in light of what the whole group thought on the previous round.

The results of the inquiry are not simply answers to a set of survey questions, but rather a product of a carefully managed interaction (Lowenstein, 1989). This product, while not necessarily a consensus, consists of "pooled judgments that have 'validity' believed to be greater than that of any individual" (Scheele, 1975, p. 57).

The present study employed a modified Policy Delphi technique with a panel of 29 experts in the field of education of the gifted in order to answer the following four questions:
1. Which of the key issues in gifted education is perceived by a panel of experts in the field as most important?
2. Which of the issues deserves top priority?
3. What action should be taken on the key issues at the federal, state and/or local level?
4. What are the experts' definitions of the term "gifted"?

**Population and Sample**

Scheele (1975) suggests that three types of panelists are necessary for creating a successful Policy Delphi panel: "stakeholders, those who will be directly affected; experts, those who have an applicable specialty or relevant experience; and facilitators, those who have skills in clarifying, organizing, synthesizing, (and) stimulating" (p. 68). However, it was the goal of the present study to obtain expert opinion. Lindquist (Combs 1985), defines "expert opinion" as "a belief or judgment that rests upon grounds insufficient to produce certainty, but which has been issued by a person...possessed of extraordinary skill or knowledge in some particular field" (p. 41). Thus, the panel for this Policy Delphi was modified to include only people considered to be experts in the field of gifted education.

A pool of 35 experts was developed, and a letter sent (Appendix H) requesting their participation in the main Delphi study. Of these, 30 agreed to participate in the study. One subsequently dropped out, however, leaving 29 (see Appendix A). These are "informed people, representative of many sides of the...
issues under examination," as recommended by Turoff (1975, p. 88), and represent the field of gifted education at the national, state, and local levels. Minority, gender, and regional representation were also considered in the original selection. The experts were identified by means of four criteria: (a) position at a university in the field of educational psychology or teacher education for the gifted; (b) position in a public or independent school having a gifted program; (c) position in an organization (local, state or national) for the gifted; and (d) author of books and/or articles on the gifted. Demonstrated competency in any one of these categories was the basis for panel selection.

**Instrumentation**

This study consisted of two pilot studies and three rounds of the Delphi Study.

**Pilot Study 1.** A covering letter (Appendix B), problem statement (Appendix C), and Pilot #1 questionnaire (Appendix D) were mailed to 13 prospective panelists on May 24, 1988, with a return date of June 30, 1988. Panelists were local, state and national figures in the field of gifted education known to the researcher. The letter explained the purpose of the pilot study and requested their participation. If for some reason they were unable to take part, they were asked to return the questionnaire in the enclosed stamped envelope.

The questionnaire consisted of four open-ended questions, designed to determine the most important issues in gifted
education. Six panelists completed the questionnaire. Of those who did not, one declined to participate on the basis of ill health; five did not respond, even though they were contacted again by phone or mailgram; and one responded to the mailgram by declining.

Pilot Study 2. The second pilot was performed in February, 1989, to clarify the proposed Round 1 questionnaire. Six panelists, local people knowledgeable in the field, were contacted by phone. All agreed to participate. A covering letter (Appendix F), questionnaire (Appendix G), and stamped envelope were mailed on February 5, 1989, and panelists were given two weeks to respond.

The panel was asked to: (a) rate the 12 key issues in terms of importance on a four-point scale, with 1 as Very Important and 4 as Unimportant; (b) designate their top three priorities; (c) suggest action needed at the federal, state and local levels for each issue they had rated 1 (Very Important) or 2 (Important); and (d) indicate their own areas of interest and expertise in the field of gifted education.

Delphi Study, Round 1. In March, 1989, the researcher contacted the 35 prospective Round 1 panelists by mail (Appendix H), explaining the study and requesting their participation in the Delphi Study. A self-addressed, stamped post card was included on which they indicated whether or not they would be able to participate. Four weeks later a reminder letter (Appendix I) was sent to non-respondents.
Thirty of the 35 experts contacted accepted the invitation to participate in the study. After the final panel selection, a covering letter (Appendix J) and the Round 1 questionnaire of the Delphi Study (Appendix K) were sent to the 30 panelists on April 30, 1989, with a due date of May 19, 1989.

For Round 1, panelists were asked to: rate each of the 12 issues on a scale of 1 (Most Important) to 4 (Unimportant); note their three top priorities of the 12 issues; briefly write what action they feel should be taken at the national, state, and/or local levels with regard to each issue they had rated as 1 (Most Important); and define the term "gifted."

The panelists were given two and a half weeks to complete the questionnaire. After three weeks, those who had not returned the questionnaires were sent a follow-up letter (Appendix L), with another questionnaire enclosed. Those who still had not responded were contacted by phone. Although the due date given in the initial Round 1 covering letter was May 19, 1989, three panelists still had not responded despite assurances that they intended to do so. One of these Round 1 questionnaires was received in mid-September, just as Round 2 was ready to be mailed. The other two never did return the questionnaire, resulting in a total of 28 respondents for Round 1. These two non-respondents had expressed great interest in the study and the best of intentions regarding completion of the questionnaire, but both pleaded lack of time and other national and international
commitments. Because of these circumstances, the researcher decided to include them in Round 2.

**Delphi Study Round 2.** The Round 2 covering letter (Appendix N) and questionnaire (Appendix O) were sent on to 30 panelists on September 22, 1989. Due date was October 6, 1989. Attached to the letter were the results of Round 1 in the form of a brief statistical summary (see Tables 1 and 2 in Chapter 4). This summary included the mean importance rating for each issue and weighted priority ratings. The questionnaire for Round 2 consisted of three sections. In Section 1 were summary statements of panelists' suggestions for action that needed to be taken at the federal, state and local levels on six of the 12 issues. Participants were asked to rate the importance to gifted education of these actions on a scale of 1 to 3, circling 1 (action crucial to gifted education), 2 (action important to gifted education), or 3 (action unimportant to gifted education or action that should not be taken). On the far right was a column in which panelists could circle "C" to indicate that they wished to comment. A blank "Comments" page was included at the end of the questionnaire.

In Section 2, the definition of the term "gifted" was broken into three components: giftedness, the gifted child, and the gifted adult. On a Likert-type scale, panelists indicated their degree of agreement with various statements derived from the Round 1 definitions of "gifted" by circling "Strongly agree," "Agree," "Disagree," or "Strongly disagree."
Section 3, the last page of Round 2, permitted panelists to indicate their top three priorities of the six issues.

One panelist dropped out of the study, and two others did not return the questionnaire, leaving a total of 27 respondents for Round 2.

**Delphi Study, Round 3.** Round 3 was sent to 29 panelists on December 27, 1989, with a due date of January 19, 1990. The Round 3 covering letter (Appendix P) explained the attached priority ratings results from Round 2. Each first priority was weighted 3, each second priority weighted 2, and each third priority weighted 1; weighted scores were summed, and the highest score was determined to be the highest priority issue.

Section 1 of Round 3 questionnaire (see Appendix Q) consisted of all action statements that had been rated 1 (Action Crucial to Gifted Education) as well as 3 (Action Unimportant to Gifted Education or Should Not be Taken) by 40% or more of the panelists in Round 2. Over 25% of these statements had been rated 3 (Unimportant) by 40% or more of the panelists on Round 2; however, in order to avoid confusion, all statements were stated positively in Round 3, and panelists were to circle Agree or Disagree for each action statement. In Section 2, all definitions of the term "gifted" that had a mean score of 3 or greater in Round 2 were included. This mean score was derived from the Round 2 Likert-type scale in which "Strongly Agree" was assigned a weight of 4, "Agree" a weight of 3, "Disagree" a weight of 2, and "Strongly Disagree" a weight of 1. Panelists
were asked to circle Agree or Disagree for each definition statement.

All 29 panelists responded to the Round 3 questionnaire.

**Statistical Analysis**

For this study, simple descriptive statistical analyses were used. All data collected were placed in tables. Percentages, means, and standard deviations were calculated, and weighted scores determined.
CHAPTER 4

RESULTS

The purpose of this study was to investigate issues in the education of gifted students. Prior to the main study, two pilot studies were conducted, one to identify the major issues in gifted education, and the other to clarify the Delphi study questionnaire. For the main study, a modified Policy Delphi technique was used with a selected panel of 29 experts. This panel of experts (of whom 28 responded in Round 1, 27 in Round 2, and 29 in Round 3) participated in three rounds of the Delphi study in order to investigate the following questions:

1. Which of the issues is most important?
2. Which of the issues deserves top priority?
3. What are the current definitions of the term "gifted"?
4. What action should be taken on the key issues at the federal, state and local levels?

Pilot Study 1

The six panelists completing the first pilot study, local and national experts in the field of gifted education, identified 19 issues they considered important in gifted education (Appendix E). Of these, three issues were mentioned more than once: teacher selection and training (3 times), public attitude towards gifted (3 times), and identification of children for gifted programs (2 times). These formed the nucleus of the Round 1
questionnaire. The remaining 16 issues were either used as they were written or subsumed into other issues, resulting in a final list of 12 key issues. These 12 issues appear in both Pilot Study #2 and the Round 1 questionnaire.

Pilot Study 2

A second pilot study was conducted in order to clarify the Round 1 questionnaire. The panel for this pilot consisted of six local people in the field of gifted education. The questionnaire (Appendix G) was in three parts. In Part 1-A the panelists rated the 12 key issues in terms of importance on a four-point scale: 1, Very Important; 2, Important; 3, Slightly Important, and 4, Unimportant. Then, in Part 1-B, they designated their top three priorities of the 12 issues. In Part 2, for each issue they had rated 1 (Very Important) or 2 (Important), panelists wrote suggested action needed at the federal, state and local levels. And finally for Part 3, they indicated their own areas of interest and expertise in the field of gifted education.

Feedback from the six respondents resulted in four changes in the Round 1 questionnaire. First, in Part 1-A of Pilot 2, five of the six panelists had rated no issues 4 (Unimportant). It was determined that the language for this category was too strong: Unimportant was defined as "No relevance; no priority; no measurable effect; should be dropped as an item to consider." Thus, for the Round 1 questionnaire, the language was changed, and 4 (Unimportant) became 4 (Of Little Importance), which was
defined as "Little relevance; lowest priority; little measurable effect." The definition for 3 (Slightly Important), was also changed, the words "Insignificantly relevant" becoming "Somewhat relevant."

Second, in Part 2 of Pilot 2, panelists had suggested actions that should be taken at the federal, state and local levels on the issues they had rated as 1 (Very Important) or 2 (Important). Two of the pilot respondents, having rated all 12 issues as 1 (Very Important) or 2 (Important), were obliged to write a considerable amount. Consequently, for the Round 1 questionnaire, this section was changed: rather than being asked to write suggestions for action for issues they had rated as 1 (Very Important) or 2 (Important), panelists were to write suggested actions only for issues they had rated 1 (Very Important), thus reducing the amount of writing required.

Third, in Part 3, participants in Pilot Study #2 had been asked to indicate their areas of interest and/or expertise in the field. Since half of the six pilot panelists did not complete this section correctly, one stating that it was very confusing, and since the information was of minimal use, it was decided to delete this section.

And finally, one of the pilot participants stated that, above all, there needed to be a definition of the term "gifted." This point had also been mentioned frequently in the literature (see, for example, Chapter 2 of this dissertation) as being of critical importance to discussion of any aspect of education for
the gifted; thus a section was added to Round 1 in which
panelists were asked to write their definition of this important
term.

Delphi Study - Round 1

Round 1 of the Delphi study consisted of four parts:
Importance of Issues; Priority of Issues; Suggested Action to be
taken at the Federal, State and Local levels; and Definitions of
the term "gifted" (see Appendix K).

Part 1

In Part 1, the 12 issues were rated in terms of importance
on a scale of 1 to 4 by 28 panelists. A rating of 1 (Very
Important) meant that the issue is highly relevant and has direct
bearing on other major issues; 2 (Important) that the issue is
relevant and has a significant impact, but not until other issues
are treated; 3 (Slightly Important) that the issue is somewhat
relevant, has little impact, and is probably not a determining
factor to major issues; and 4 (Of Little Importance), that the
issue has little relevance or measurable effect. In Table 1, the
issues are listed in order of mean importance ratings.
Table 1

Results of Round 1, Part 1: Mean Importance Ratings (N = 28)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Issue</th>
<th>f</th>
<th>frq</th>
<th>f</th>
<th>frq</th>
<th>f</th>
<th>frq</th>
<th>f</th>
<th>frq</th>
<th>Mean WS²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Selection and training of teachers of the gifted</td>
<td>20</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.321</td>
</tr>
<tr>
<td>2.</td>
<td>Procedures for identifying children for gifted program</td>
<td>18</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.393</td>
</tr>
<tr>
<td>3.</td>
<td>Goals of gifted programs</td>
<td>18</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.464</td>
</tr>
<tr>
<td>4.</td>
<td>Special populations of gifted: handicapped, women,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>minorities, underachievers, pre-school</td>
<td>17</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.536</td>
</tr>
<tr>
<td>5.</td>
<td>Counseling the gifted</td>
<td>12</td>
<td>15</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.607</td>
</tr>
<tr>
<td>6.</td>
<td>Curriculum for the gifted</td>
<td>14</td>
<td>8</td>
<td>6</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.714</td>
</tr>
<tr>
<td>7.</td>
<td>Definition of the term &quot;gifted&quot;</td>
<td>13</td>
<td>11</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.714</td>
</tr>
<tr>
<td>8.</td>
<td>Public attitudes toward and support for the gifted,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>including the equity/excellence dichotomy</td>
<td>12</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.786</td>
</tr>
<tr>
<td>9.</td>
<td>Funding of gifted programs</td>
<td>9</td>
<td>15</td>
<td>4</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.821</td>
</tr>
<tr>
<td>10.</td>
<td>Evaluation of gifted programs</td>
<td>9</td>
<td>15</td>
<td>4</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.821</td>
</tr>
<tr>
<td>11.</td>
<td>Advocacy efforts for gifted children</td>
<td>6</td>
<td>15</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.143</td>
</tr>
<tr>
<td>12.</td>
<td>Administrative structure of gifted programs</td>
<td>5</td>
<td>12</td>
<td>11</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.214</td>
</tr>
</tbody>
</table>

Mean of weighted scores = 1.710; standard deviation = 0.262

¹ VI = Very Important; I = Important; SI = Slightly Important; LI = of Little Importance.

² Scores were weighted (Very Important weighted 1; Important 2; Slightly Important 3; and of Little Importance, 4), then summed and divided by 28 to obtain a mean weighted score (Mean WS).
Discussion of Table 1. The mean rating for each of the 12 issues was calculated. Mean weighted scores ranged only from 1.321 to 2.214, and the mean of the mean scores was 1.71 with a standard deviation of 0.262; thus it is apparent that the panelists believe all of the issues are important. Because there was so little differentiation in these importance ratings, it was decided to use the priority ratings (Part 2) to rank the issues. Importance as a dimension was not considered in further rounds, as all issues were obviously of importance.

It had been anticipated that the panel’s Round 1 responses would permit the researcher to make an informed decision as to which (if any) of the 12 issues were considered to be least important by a majority (more than half) of the panel. Such issues would have been dropped from further rounds. However, no issues were rated 4 (Of Little Importance) by more than half of the panelists; in fact, only four panelists gave any issue a rating of 4. In addition, if any new issues had been suggested by five or more panel members, these would have been included in subsequent rounds. However, no new issues were suggested by five or more panel members. Six panelists did add issues they felt were important. These are:

1. Theoretic foundations as basis for policies and practices;

2. Quality of educational programs for students at the other end of the spectrum;
3. The highly gifted (at a panelist’s suggestion, highly gifted was moved to Special Populations in Round 2);

4. STOP the reform movement to abolish grouping;

5. Training for administrators as decision makers; and

6. Use of gifted programs to resegregate schools, not only by race but also by economic class.

Part 2

Here panelists were asked to indicate, by means of a 1, 2, and 3, their priority ratings for the three issues they felt were of greatest priority. These ratings were weighted: each first priority was weighted 5, each second priority weighted 3, and each third priority weighted 1; then the weighted scores were summed. Results are shown in Table 2.
Table 2
Results of Round 1, Part 2: Priority Ratings (N = 28)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Issues</th>
<th>Priorities</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>WS²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Procedures for identifying children for gifted programs</td>
<td>frq</td>
<td>5</td>
<td>7</td>
<td>1</td>
<td>47</td>
</tr>
<tr>
<td>2.</td>
<td>Selection and training of teachers of the gifted</td>
<td>fqr</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>46</td>
</tr>
<tr>
<td>3.</td>
<td>Special populations of gifted: women, handicapped, minorities, pre-school, underachievers, highly gifted</td>
<td>fqr</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>32</td>
</tr>
<tr>
<td>4.</td>
<td>Goals of gifted programs</td>
<td>5.5*</td>
<td>0</td>
<td>1</td>
<td></td>
<td>28.5</td>
</tr>
<tr>
<td>5.</td>
<td>Curriculum for the gifted</td>
<td>2.5*</td>
<td>4</td>
<td>1</td>
<td></td>
<td>25.5</td>
</tr>
<tr>
<td>6.</td>
<td>Definition of the term &quot;gifted&quot;</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>7.</td>
<td>Funding of gifted programs</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>8.</td>
<td>Counseling the gifted</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>9.</td>
<td>Public attitudes toward and support for gifted, including</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>the equity/excellence dichotomy</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Evaluation of gifted programs</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Administrative structure of programs for the gifted</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Advocacy efforts for gifted children</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Mean weighted score = 20.33; standard deviation = 15.20

* One panelist marked two issues as 1st priority; one-half vote was assigned to each

² WS = weighted score; priorities weighted (1st = 5, 2nd = 3, 3rd = 1) then summed to obtain weighted priority score
Discussion of Table 2. In Table 2, priority ratings were weighted as described above, then summed. For example, five panelists gave Issue #1, Procedures for Identifying Children for Gifted Programs, first priority (5 x 5 = 25), seven gave it second priority (7 x 3 = 21), and one gave it third priority (1 x 1 = 1); 25 + 21 + 1 = 47, resulting in a priority score of 47 for this issue. The mean priority score was 20.33, standard deviation 15.2. It should be noted that, had a different weighting scheme been used, results would have been slightly different. For example, if first priority had been weighted 3, second 2, and third 1, then the weighted scores for Issues 1 and 2 would have both been 30. See also Table 5 discussion.

The two top issues--Identification of Children for Gifted Programs and Teacher Selection and Training--were very close in both mean importance ratings (1.321 and 1.392 respectively; see Table 1) and weighted priority scores (47 and 46 respectively; see Table 2). Of the seven issues having mean importance ratings above the average mean importance score of 1.71 (Table 1), six had priority scores above the average of 20.33 (Table 2). Counseling the gifted, rated fifth in importance (Table 1), dropped to eighth in priority (Table 2).

Part 3

For each issue they had rated 1 (Very Important) in Part 1, panelists were asked in Part 3 to describe briefly what action should be taken on these issues at the federal, state and local levels. After preliminary data reduction, this resulted in over
360 statements of suggested actions. These are found in Appendix M.

It was soon evident that the Round 2 questionnaire would be far too lengthy for panelists to complete in a reasonable amount of time if all 360 statements for all 12 issues were included. As can be seen in Table 2, Priority Ratings, there was a clear break occurring between Issue 6, Definition of the Term "Gifted" (priority score 23) and Issue 7, Funding of Gifted Programs (priority score 12). Thus it was decided to use the results of priority ratings as a method of reducing the number of issues in this study: the six issues having priority scores above the average of 20.33 were retained in Round 2 while the rest were eliminated. Panelists' statements regarding suggested action at the federal, state and local levels for these six issues were combined and reduced, resulting in a total of 144 statements that were used for Round 2 (Appendix O).

Part 4

Panelists wrote their definitions of the term "gifted" for part 4. This resulted in 23 definition statements (Appendix N).

When the researcher examined panelists' definitions, responses generally fell into three distinct categories: giftedness in general, the gifted child, and the gifted adult. Statements were developed for each of these three categories for the Round 2 questionnaire (Appendix O).
The second round of the Delphi study (Appendix O) consisted of three parts: Suggested Action at the Federal, State and Local Levels; Definition of the term "Gifted"; and Priority Ratings. Twenty-seven panelists responded to Round 2.

Section 1

This part consisted of 144 statements of suggested action to be taken at the federal, state and local levels for six issues derived from panelists' responses to Round 1 (see Appendix M). Panelists indicated the importance of each suggestion by circling 1 (Action is Crucial to Gifted Education), 2 (Action is Important to Gifted Education), or 3 (Action is Not Important to Gifted Education or Should Not Be Taken). If panelists desired to comment, they were to circle C and write any comments on the page provided at the end of the questionnaire. A summary of Round 2 results is shown in Table 3. Complete Round 2 results can be found in Appendix P.
Table 3

Summary of Results of Delphi Survey - Round 2, Section 1: Actions at the Federal, State and Local Levels considered Crucial or Not Important by more than 40% of panel (N = 27)

**Issue #1: Identification**

<table>
<thead>
<tr>
<th>Federal Level:</th>
<th>CRUCIAL</th>
<th>NOT IMP.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- recommend and define procedures for identification</td>
<td>panelists divided</td>
<td></td>
</tr>
<tr>
<td>- establish guidelines on tests to use for identification</td>
<td>42%</td>
<td></td>
</tr>
<tr>
<td>- establish guidelines on identification which will produce program similar to PL 94-142 (Education for All Handicapped Act)</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>- provide catalytic support for programs only if identification procedures are appropriate to curriculum offered</td>
<td>41%</td>
<td></td>
</tr>
<tr>
<td>- provide catalytic support for research on identification</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>- provide assistance to states for writing rules and regulations</td>
<td>48%</td>
<td></td>
</tr>
<tr>
<td>- share knowledge and research for better decision making</td>
<td>46%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State Level:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- establish guidelines on identification</td>
<td>63%</td>
</tr>
<tr>
<td>- recommend approaches and procedures to identification to include all parts of definition of gifted</td>
<td>63%</td>
</tr>
<tr>
<td>- establish procedures consistent with federal guidelines</td>
<td>panelists divided</td>
</tr>
<tr>
<td>- establish identification procedures that are in compliance with best practices determined from research</td>
<td>74%</td>
</tr>
<tr>
<td>- provide support of local pilot projects meeting needs of multiple talents</td>
<td>54%</td>
</tr>
<tr>
<td>- broaden definition beyond academically talented</td>
<td>60%</td>
</tr>
<tr>
<td>- should not adjust entry level to fit budgets</td>
<td>50%</td>
</tr>
<tr>
<td>- adopt inclusive policies that permit all children having +2 standard deviations on a standardized IQ test to receive services</td>
<td>41%</td>
</tr>
<tr>
<td>- write regulations making K-12 program mandatory</td>
<td>62%</td>
</tr>
<tr>
<td>- train school psychologists and counselors in identification of gifted students</td>
<td>55%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Local Level:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- establish identification procedures that:</td>
<td></td>
</tr>
<tr>
<td>- are consistent with state and federal guidelines</td>
<td>42%</td>
</tr>
<tr>
<td>- are specific to local student population</td>
<td>50%</td>
</tr>
<tr>
<td>- are appropriate to curriculum offered</td>
<td>59%</td>
</tr>
</tbody>
</table>

(table continues)
Table 3, continued

**Issue #2: Selection and Training of Teachers of the Gifted**

**Federal Level:**
- establish guidelines for teacher selection ................................................. 41%
- establish guidelines for teacher training ...................................................... panelists divided
- provide catalytic support for certification programs ...................................... 48%
- provide catalytic support for fellowships and scholarships
  for teachers of gifted ................................................................. 44%
- promote gifted/talented certification for teachers ........................................ 41%
- promote graduate level study of gifted/talented ............................................ 48%

**State Level:**
- mandate certification of teachers of the gifted ........................................... 41%
- determine state standards for teacher training ............................................. 56%
- mandate gifted education as graduate program only ...................................... 48%
- fund programs leading to certification ...................................................... 45%
- provide support to coordinate college and university training programs .......... panelists divided
- investigate teacher training through alternate modes, not just universities ........ 52%
- support partnerships between universities and districts ................................ 64%

**Local Level:**
- Hire only teachers certified in gifted education .......................................... panelists divided
- Hire only teachers having 3 graduate credits in gifted education ................... 52%
- Hire only teachers trained in gifted education, with appropriate experience and credentials .......................................................... 42%
- employ national searches to locate teachers ............................................... 50%
- comply with state certification regulations ............................................... 48%
- design comprehensive inservice training for all teachers, whether teaching gifted or regular students ................................................. 62%
- train teachers in content, teaching strategies; emphasis on individual differences ................................................................. 70%
- provide financial incentives to teachers of gifted ........................................ 41%

**Issue #3: Special Populations of Gifted:** underachievers, minorities, handicapped, females, very young gifted children, highly gifted

**Federal level:**
- establish policies to ensure that special populations are reached and served ................................................. 56%
- develop advocacy policy for special populations ............................................ 42%

(table continues)
Table 3, continued

Special Populations of Gifted, continued

<table>
<thead>
<tr>
<th>CRUCIAL</th>
<th>NOT IMP.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- provide catalytic support for projects only if they identify representative populations of poor, minority, and handicapped</td>
<td>58%</td>
</tr>
<tr>
<td>- recognize needs of the highly gifted</td>
<td>52%</td>
</tr>
</tbody>
</table>

State Level:

- establish guidelines regarding special populations | 44% |
- provide funding for projects only if they identify representative populations of poor, minority, and handicapped | 52% |
- provide funding for grants and workshops to develop programs for special populations | 50% |
- share knowledge regarding special programs in minority enrollment | 54% |
- set priorities to meet needs of specific populations | 42% |
- encourage development of special programs, identification methods for highly gifted | 52% |

Local Level:

- implement research findings on special populations | 50% |
- renorm tests to obtain representative population | 58% |
- diagnose all underachieving students | 42% |
- allow early entrance and other accommodations for highly gifted | 81% |

Issue #4: Goals of Gifted Programs

Federal Level:

- establish guidelines regarding development of creativity and intrinsic motivation as goals, rather than grades and test scores | 70% |
- provide catalytic support for research on goals | 48% |
- evaluate existing research for practical advice on goals | 56% |

State Level:

- assist local districts in defining goals | 44% |

Local Level:

- develop goals that are specific to particular programs and populations | 55% |
- make explicit the goals of creativity, self-initiative and risk-taking rather than conformity to teacher or testmaker expectations | 44% |
- state goals clearly and specifically | 70% |
- conduct needs assessment | 44% |

(table continues)
### Issue #5: Curriculum for the Gifted

#### Federal Level:
- support development of model or exemplary curriculum projects .................. 54%
- provide support for funding to be used for required courses, not pull-out enrichment ................................................. 62%
- disseminate information on effective curriculum projects .......................... 42%

#### State Level:
- provide support for model curriculum development projects .................... 46%
- support legislation to ensure that effective curricula are implemented ........ 42%
- adopt federal guidelines regarding curriculum ........................................ 50%
- provide assistance to local school districts in defining "differentiated curriculum" ......................... 54%
- require funds to be used for required courses, not pull-out enrichment ........... 58%

#### Local Level:
- require thorough evaluation of curriculum ............................................. 54%
- provide inservice for teachers on appropriate curriculum .......................... 58%
- allow teachers released time for curriculum development .......................... 42%
- ensure that:
  - curriculum is sufficiently differentiated ......................................... 75%
  - is carefully articulated with regular program ...................................... 60%
  - token gifted programs are avoided .................................................. 87%
  - curriculum is relevant to program goals and identification criteria ............ 87%
  - curriculum is modified to meet individual student needs ....................... 79%
  - curriculum is not limited to low-level field trips and enrichment activities ........ 90%
  - implement research findings ......................................................... 63%

*Table continues*
Table 3, continued

**Issue #6: Definition of the Term "Gifted"**

<table>
<thead>
<tr>
<th>Federal Level:</th>
<th>CRUCIAL</th>
<th>NOT IMP.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- conduct major conference to try to reach consensus on broad definition of gifted</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>- reestablish national center to disseminate information</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>- put clout into the already established definition so that it is implemented</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>- emphasize potential rather than achievement re. gifted children:</td>
<td>panelists divided</td>
<td></td>
</tr>
<tr>
<td>creativity, self-initiation, intrinsic motivation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| State Level:                                                                 |          |          |
| - provide guidelines for local school districts that direct the inclusion of a variety of giftedness | 56%     |          |
| - provide a framework definition                                               | 48%     |          |
| - clarify types of programs that will be funded; specify measurable criteria for each | 44%     |          |
| - monitor districts for compliance with fed. definition; require compliance for funding | 41%     |          |

| Local Level:                                                                 |          |          |
| - develop definition based on grassroots origin (i.e., local colleges and schools) | 65%     |          |
| - accept and implement federal definition                                      | 43%     |          |
Discussion of Table 3. Percentages were calculated for all statements rated 1 (Action Crucial to Gifted Education) as well as those rated 3 (Action Unimportant to Gifted Education or Should Not be Taken). All percentages greater than 40% for actions considered Crucial as well as for actions considered Not Important are given in Table 3. In the six cases where panelists were fairly evenly divided (within 10 percentage points) about statements, this also is noted in Table 3. (See Appendix P for complete frequencies and percentages).

At the federal level, only 12 of the 51 suggested actions (23%) were considered by 40% or more of the panel to be crucial, while 13 (25%) were declared not important or should not be taken. By comparison, at the state level, 24 of 48 actions (50%) were considered crucial by 40% or more of the panelists, and 5 (11%) unimportant; and at the local level, 25 of 45 actions (56%) were crucial and 5 (10%) unimportant.

The researcher desired to cut the number of statements by approximately one-third for Round 3; thus, all statements rated 1 or 3 by 40% or more of the panelists in Round 2 were included in Round 3. Further, panelists' responses to six of the 144 statements (noted in Table 3) were fairly evenly divided between the three ratings, within 10 percentage points. Percentages were also calculated for these six statements, and they too were included in Round 3. This resulted in a total of 89 statements to be included in Round 3.
Section 2

Definitions of the term "Gifted" had been divided into three categories: giftedness, the gifted child, and the gifted adult. For Round 2, a Likert-type* scale was used; panelists circled 1 indicating they Strongly Agree with the definition statement, 2 indicating that they Agree, 3 that they Disagree, and 4 that they Strongly Disagree. Scores were weighted, 4 for Strongly Agree, 3 for Agree, 2 for Disagree, and 1 for Strongly Disagree. The weighted scores were summed, then divided by 27 to obtain a mean weighted score (Table 4). All statements having a mean weighted score of 3 or greater were included in the Round 3 questionnaire.

* A Likert scale contains a set of items of equal value. Subjects respond with varying degrees of intensity; the subject's score is the sum of the weights of the responses (Noll, 1965).
Table 4

Results of Round 2, Section 2: Panel definitions of the term "Gifted"

(N = 27)

<table>
<thead>
<tr>
<th>Giftedness is:</th>
<th>SA(^5)</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>Mean WS(^5)</th>
<th>N(^*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. a biologically rooted concept</td>
<td>frq</td>
<td>frq</td>
<td>frq</td>
<td>frq</td>
<td>6</td>
<td><strong>10.5</strong></td>
</tr>
<tr>
<td>b. a label for high level of intelligence resulting from</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>advanced and accelerated integration of functions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within the brain</td>
<td>frq</td>
<td>frq</td>
<td>frq</td>
<td>frq</td>
<td>9</td>
<td><strong>10.5</strong></td>
</tr>
<tr>
<td>c. the potential for exceptional development of specific</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>abilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. the demonstration of performance capability at the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>upper end of a talent continuum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. not limited by age, gender, race, socioeconomic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>status, or ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. a psychological trait descriptor of positive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>exceptionality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. a score above the 8th stanine on at least 6 of the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structure Of Intellect (SOI) Learning Abilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. behavior that reflects an interaction among three</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>basic clusters of traits: above average general</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and/or specific abilities, high level task</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>commitment, high level creativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean of mean weighted scores = 2.98; standard deviation = 0.495

N\(^*\): N = 27 unless noted in this column

\(^*\) One panelist marked both Strongly Agree and Agree; one-half point was assigned to each.

\(^5\) SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree

\(^4\) Scores weighted (Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1), then summed and divided by 27 to obtain Mean Weighted Score
Table 4, continued

Round 2, Section 2: Panel Definition of the term "Gifted," continued

<table>
<thead>
<tr>
<th>A Gifted Child is one who:</th>
<th>SA frq</th>
<th>A frq</th>
<th>D frq</th>
<th>SD frq</th>
<th>Mean WS</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. possesses or is capable of developing the set of three traits (above average general and/or specific abilities, high levels of task commitment, high levels of creativity) and applying them to any potentially valuable area of human performance</td>
<td>7</td>
<td>8</td>
<td>5</td>
<td>5</td>
<td>2.68</td>
<td>25</td>
</tr>
<tr>
<td>b. demonstrates potential: capability in the following areas, singly or in combination:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) general intellectual ability</td>
<td>19</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>3.63</td>
<td></td>
</tr>
<tr>
<td>(2) specific academic aptitude</td>
<td>16</td>
<td>10</td>
<td>1</td>
<td>0</td>
<td>3.56</td>
<td></td>
</tr>
<tr>
<td>(3) leadership ability</td>
<td>13</td>
<td>9</td>
<td>3</td>
<td>0</td>
<td>3.40</td>
<td>25</td>
</tr>
<tr>
<td>(4) psychomotor ability</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>2</td>
<td>2.88</td>
<td>25</td>
</tr>
<tr>
<td>(5) visual and performing arts</td>
<td>15</td>
<td>10</td>
<td>2</td>
<td>0</td>
<td>3.48</td>
<td></td>
</tr>
<tr>
<td>(6) creative productive thinking</td>
<td>13</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>3.43</td>
<td>23</td>
</tr>
<tr>
<td>c. has been identified by professionally qualified persons</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>2.76</td>
<td>25</td>
</tr>
<tr>
<td>d. is developmentally advanced in one or more areas, and exhibits the characteristics of giftedness</td>
<td>11</td>
<td>14</td>
<td>1</td>
<td>1</td>
<td>3.30</td>
<td></td>
</tr>
<tr>
<td>e. is developmentally advanced and is therefore in need of a differentiated school program in order to develop at his or her own accelerated pace</td>
<td>16</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>3.42</td>
<td>26</td>
</tr>
<tr>
<td>f. has potential or demonstrated outstanding ability in a specific talent or in multiple areas, and who requires supportive educational services in order to function at level of his or her potential</td>
<td>18</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>3.44</td>
<td>26</td>
</tr>
</tbody>
</table>

Mean of mean weighted scores = 3.27; standard deviation = 0.318

(table continues)
Table 4, continued

Panel Definition of the term "Gifted," continued

<table>
<thead>
<tr>
<th>Panel</th>
<th>Definition of the term 'Gifted:'</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>Mean WS</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>frq</td>
<td>frq</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A Gifted Adult is one who:

a. has the innate talents and intrinsic motivation to achieve outstanding performance in one or more areas of human endeavor ................................................. 12 7 3 5 2.96

b. makes independent and creative contributions to a field that cannot be ignored ........................................................ 15 8 2 2 3.33

c. shows an unusual skill, ability, or talent in one or more areas of intellect, leadership or in the visual or performing arts .................................................. 14 12 1 0 3.48

d. demonstrates exceptional performance in an area of value .................................................. 14 11 2 0 3.44

Mean of weighted mean scores = 3.30; standard deviation = 0.205
Discussion of Table 4. As noted above, definition of the term "gifted" was divided into three categories: Giftedness, the Gifted Child, and the Gifted Adult. Rather than "definition," the term "descriptor" might be a more appropriate word as applied to panelists' responses. Although 27 panelists participated in Round 2, several did not respond to some statements, thus, N is less than 27.

Giftedness. For Giftedness, the respondents included both potential and performance as well as more general statements. Greatest agreement was with the statement, "Giftedness is not limited by age, gender, race, socioeconomic status, or ethnicity," with 21 panelists strongly agreeing (weighted score 3.63). However, the other statements describing giftedness did not elicit such agreement, especially the statement, "Giftedness is behavior that reflects an interaction among three basic clusters of traits: above average general and/or specific ability, high level of task commitment, and high level of creativity," a position espoused by Renzulli (1979). Panelists were clearly divided on this definition, with six panelists strongly agreeing and five strongly disagreeing.

Four statements were added by respondents:

Giftedness is:

1. Motivation-driven, biologically permitted, environmentally assisted performance at a high level.

2. Represented by exceptional abilities or potential abilities, not all of which will be developed to the same level,
but which may range in some areas to the degree that would suggest genius.

3. Advanced development in any area.
4. Intrinsic motivation, risk taking.

The Gifted Child. In this section, the Renzulli (1979) definition that generated strong disagreement above produced similar results; seven panelists strongly agreed and five strongly disagreed. No other statement caused such a split.

The six components of the federal definition developed by Marland (1972) were listed by another panelist, and, with the exception of psychomotor ability, there was definite agreement (above 3.00) with these components among the rest of the panelists. In each case only two or three panelists disagreed.

Other statements favored by panelists included those concerning the child’s needs, based on his or her giftedness. However, one panelist contested the use of "need" in a definition; he felt that, whereas need is useful in constructing and implementing a selection procedure, "exceptionality is measured against a norm; need may follow, but lack is a negative trait and shouldn’t be used to define gifted."

Where gifted children are concerned, panelists stressed potential rather than demonstrated performance in their descriptors, strongly agreeing with nine of the 12 "potential" statements. As mentioned above, the Renzulli (1979) definition elicited disagreement, possibly due to panelists’ perception that it emphasizes demonstrated achievement. Preference for potential
was also apparent in the statements added by some panelists, which included the following:

A gifted child is one who:
1. Is advanced in potential or ability in one or more areas of the federal definition at the 97th - 99th percentile; above the 99th percentile are highly gifted.
2. Has potential; intrinsic motivation.
3. Is generally accepted as "gifted"

The Gifted Adult. In the section on the Gifted Adult, performance or demonstrated achievement took precedence over potential, the panelists agreeing with all "performance" statements. They disagreed with the "potential" statement that "a gifted adult has the innate talents and intrinsic motivation to achieve outstanding performance in one or more areas of human endeavor." A strongly worded minority opinion was added by one panelist:

The gifted adult demonstrates higher human values (empathy, responsibility, integrity, moral courage, commitment). Giftedness in adulthood should be judged by the quality of life, not just contributions in work-related areas. Gifted adults have many characteristics of gifted children: capacity for abstract thought, creative imagination, sophisticated sense of humor, unusual insight, and sensitivity.

Clearly, defining the term "gifted" is difficult; panelists' responses were mainly descriptions of the nature of giftedness and of its manifestation in children and adults rather than a definition of the term.
Section 3

Panelists were asked once more to rank their first three priorities of the six issues. As in Round 1, scores were weighted: all first priority rankings were weighted 5, second weighted 3, and third weighted 1. The weighted scores were then summed. Results can be seen in Table 5. The highest weighted total was determined to be the highest priority issue, and issues are ranked in this table on the basis of priority.
Table 5

Round 2, Section 3: Panelists' priority ratings for six issues (N = 27)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Issues</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>Priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Curriculum for the gifted</td>
<td>8</td>
<td>4</td>
<td>6.5** 58.5</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Procedures for identifying children for gifted programs</td>
<td>6</td>
<td>6</td>
<td>2   50</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Selection and training of teachers of the gifted</td>
<td>3</td>
<td>8</td>
<td>10  49</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Special populations of gifted: handicapped, women, minorities, underachievers, pre-school, highly gifted</td>
<td>5</td>
<td>4</td>
<td>6.5** 43.5</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Goals of gifted programs</td>
<td>3</td>
<td>4</td>
<td>1   28</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Definition of the term &quot;gifted&quot;</td>
<td>2</td>
<td>1</td>
<td>1   14</td>
<td></td>
</tr>
</tbody>
</table>

Mean weighted score = 40.5; standard deviation = 15.02

** One panelist marked two issues 3rd priority; one half vote was assigned to each.

---

7 WS = Weighted Score: priorities weighted (1st = 5, 2nd = 3, 3rd = 1) then summed
Discussion of Table 5. Curriculum for the Gifted made a surprising advance in priority ratings in this round, emerging from fifth place in Round 1 to first place in Round 2. Although one panelist declared that the priorities do not much matter because "the top four (issues), which are relatively close together...serve to define major areas of concern in the field," another stated that a high priority is already placed on teacher training and especially identification, but less so on curriculum. For example, one of the U.S. Secretary of Education's two "Absolute Priorities" for the Jacob K. Javits Gifted and Talented Students Education Program; Invitation for applications for New Awards (U.S. Department of Education, 1989) is identification, and the first two "Invitational Priorities" concern teacher training. However, curriculum as such appears nowhere in the document. The strong showing of curriculum in the Delphi study may indicate a shift toward this as an issue.

As mentioned in the Table 2 discussion, if a different weighting scheme been used, the results would have been slightly different. For example, if first priority had been assigned a weight of 3, second 2, and first 1, then Issue 2 (Identification) would have had a weighted score of 32 while Issue 3 (Teachers) would have had a weighted score of 35, and their positions would have been reversed. The researcher polled the Delphi panel on this effect. Those who responded indicated that it made little difference; the top four issues were those that were of importance in the field, and their rank order meant little.
Delphi Study - Round 3

The third questionnaire and final round of the Delphi study (Appendix Q) consisted of two parts: Suggested Action at the Federal, State and Local Levels, and Definition of the term "Gifted." All 29 panelists responded to Round 3.

Part 1

For this part, panelists circled "Agree" or "Disagree" for 89 suggested actions to be taken at the federal, state and local levels. The statements comprising this part were derived from Round 2 and included all statements given a rating of 1 (Crucial to Gifted Education) or 3 (Unimportant to gifted Education) by 40% or more of the panelists. Also included were the six statements with Round 2 ratings fairly evenly divided (within 10 percentage points) between 1 (Crucial to Gifted Education), 2 (Important to Gifted Education), and 3 (Unimportant to Gifted Education). To reduce confusion, all statements were stated positively, even the over 25% of the action statements that were rated 3 (Unimportant to Gifted Education) by panelists in Round 2. Results can be seen in Table 6.
### Table 6

Round 3, Section 1: Summary: Actions to be taken at federal, state and local levels (N = 29)

**ISSUE #1: CURRICULUM FOR THE GIFTED:**

**FEDERAL LEVEL**

1. **Provide catalytic Support:**
   - for the development of model or exemplary curriculum projects .................. 86%
   - for requirement that funding be used for required courses rather than pull-out enrichment ................................................................. 76%

2. **Disseminate information on effective curriculum projects** .................................................. 97%

**STATE LEVEL**

1. **Provide support:**
   - for model curriculum projects .......................................................... 90%
   - for legislation to ensure that effective curricula are implemented .................. 83%

2. **Assist local school districts in defining “differentiated curriculum”** .................. 93%

3. **Require that funds be used for required courses rather than “pull-out” enrichment** .......................................................... 69%

**LOCAL LEVEL**

1. **Require thorough evaluation of curriculum for the gifted** .................................. 90%

2. **Provide inservice for teachers on appropriate curriculum for gifted** .................. 97%

3. **Allow G/T teachers released time for curriculum development** .................. 93%

4. **Ensure that**
   - curriculum is sufficiently differentiated ............................................. 93%
   - curriculum is carefully articulated with regular program ...................... 89%
   - token gifted programs are avoided ...................................................... 100%
   - curriculum is relevant to program goals and identification criteria .................. 100%
   - curriculum is modified to meet individual student needs ...................... 100%
   - curriculum not limited to low-level field trips and enrichment activities .......................................................... 100%

5. **The local level should implement research findings** .................. 93%

* Percentages calculated and shown for all above 80% AGREE, and above 60% DISAGREE.
Table 6, continued

**ISSUE #2: PROCEDURES FOR IDENTIFYING CHILDREN FOR GIFTED PROGRAMS:**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AGREE</th>
<th>DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FEDERAL LEVEL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Establish guidelines on tests used for identifying children for gifted programs</td>
<td>panelists divided</td>
<td></td>
</tr>
<tr>
<td>2. Provide catalytic support for research on identification</td>
<td>97%</td>
<td></td>
</tr>
<tr>
<td>3. Share knowledge and research on identification for better decision making</td>
<td>96%</td>
<td></td>
</tr>
<tr>
<td><strong>STATE LEVEL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Establish guidelines for identification</td>
<td>86%</td>
<td></td>
</tr>
<tr>
<td>2. Recommend approaches and procedures for identification that include all parts of definition of gifted</td>
<td>89%</td>
<td></td>
</tr>
<tr>
<td>3. Establish procedures that are: - consistent with federal guidelines</td>
<td>panelists divided</td>
<td></td>
</tr>
<tr>
<td>4. Provide support of local pilot projects meeting needs of multiple talents</td>
<td>93%</td>
<td></td>
</tr>
<tr>
<td>5. Broaden definition beyond academically talented</td>
<td>89%</td>
<td></td>
</tr>
<tr>
<td>6. Adjust entry level criteria to fit budgets</td>
<td>92%</td>
<td></td>
</tr>
<tr>
<td>7. Write regulations making K-12 program mandatory</td>
<td>92%</td>
<td></td>
</tr>
<tr>
<td><strong>LOCAL LEVEL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Establish identification procedures that are appropriate to curriculum offered</td>
<td>82%</td>
<td></td>
</tr>
<tr>
<td>2. Train school psychologists and counselors in identification of g/t students</td>
<td>86%</td>
<td></td>
</tr>
</tbody>
</table>

**ISSUE #3: SELECTION AND TRAINING OF TEACHERS FOR THE GIFTED: FEDERAL LEVEL**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AGREE</th>
<th>DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Establish guidelines on training of teachers for the gifted</td>
<td>panelists divided</td>
<td></td>
</tr>
<tr>
<td>2. Provide catalytic support for fellowships and scholarships for teachers of the gifted</td>
<td>86%</td>
<td></td>
</tr>
<tr>
<td>3. Promote graduate level study of gifted/talented</td>
<td>86%</td>
<td></td>
</tr>
<tr>
<td>4. Be involved in teacher selection and training</td>
<td>79%</td>
<td></td>
</tr>
</tbody>
</table>

(table continues)
Table 6, continued

<table>
<thead>
<tr>
<th>TEACHERS, STATE LEVEL</th>
<th>AGREE</th>
<th>DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Standards:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Establish state standards that mandate certification</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td>- Establish state standards for teacher training</td>
<td>93%</td>
<td></td>
</tr>
<tr>
<td>2. Require gifted education as graduate program only</td>
<td>69%</td>
<td></td>
</tr>
<tr>
<td>3. Support:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- provide funding or support for teacher education programs</td>
<td></td>
<td></td>
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<tr>
<td>leading to certification in gifted/talented education</td>
<td>86%</td>
<td></td>
</tr>
<tr>
<td>- coordinate college and university training programs</td>
<td>72%</td>
<td></td>
</tr>
<tr>
<td>- support partnerships between universities and local school districts</td>
<td>96%</td>
<td></td>
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</tbody>
</table>

LOCAL LEVEL

| 1. Qualifications for teachers of the gifted: |       |          |
| - hire only teachers certified in gifted education | 64%    |          |
| - hire only teachers having at least 3 graduate courses in gifted education | 62%    |          |
| - employ national searches to locate teachers | panelists divided |          |
| - comply with state certification regulations | 97%    |          |
| 2. Teacher training: |       |          |
| - design comprehensive plan for inservice training for all teachers, whether teaching gifted or regular students | 93%    |          |
| - train teachers in both content and teaching strategies, emphasizing individual differences | 90%    |          |
| 3. Provide financial incentives to teachers of gifted | panelists divided |          |

ISSUE #4: SPECIAL POPULATIONS OF GIFTED: UNDERACHIEVERS, HIGHLY GIFTED, MINORITIES, HANDICAPPED, FEMALES, VERY YOUNG GIFTED CHILDREN:

FEDERAL LEVEL

| 1. Establish advocacy policies for special populations of gifted students | 86%    |          |
| 2. Limit catalytic support only to programs that identify representative populations of poor, minority, and handicapped gifted students | 72%    |          |
| 3. Recognize the needs of the highly gifted | 90%    |          |
Table 6, continued

<table>
<thead>
<tr>
<th>SPECIAL POPULATIONS, STATE LEVEL</th>
<th>AGREE</th>
<th>DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Establish guidelines regarding special populations</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>2. Funding:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>- limit funding only to programs that identify representative</td>
<td>68%</td>
<td></td>
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<tr>
<td>populations of poor, minority, and handicapped gifted students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- provide funding in the form of grants and workshops</td>
<td>96%</td>
<td></td>
</tr>
<tr>
<td>to develop programs for special populations</td>
<td></td>
<td></td>
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<tr>
<td>3. Share knowledge regarding successful programs in minority enrollment</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>4. Set priorities for meeting needs of specific populations</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td>5. Encourage development of special programs and identification methods for the highly gifted</td>
<td>90%</td>
<td></td>
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<thead>
<tr>
<th>LOCAL LEVEL</th>
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</thead>
<tbody>
<tr>
<td>1. Implement research findings regarding special populations of gifted</td>
<td>97%</td>
<td></td>
</tr>
<tr>
<td>2. Renorm tests to obtain representative population</td>
<td>71%</td>
<td></td>
</tr>
<tr>
<td>3. Diagnose all underachieving students</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td>4. Allow early entrance and other accommodations for highly gifted students</td>
<td>100%</td>
<td></td>
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ISSUE #5: GOALS OF GIFTED PROGRAMS: FEDERAL LEVEL

<p>| | | |</p>
<table>
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<tbody>
<tr>
<td>1. The federal level should establish guidelines re. development of creativity and intrinsic motivation as goals, rather than grades and test scores</td>
<td>panelists divided</td>
<td></td>
</tr>
<tr>
<td>2. The federal level should provide catalytic support for research goals</td>
<td>93%</td>
<td></td>
</tr>
<tr>
<td>3. The federal level should evaluate existing research for practical advice on goals</td>
<td>90%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STATE LEVEL</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The state level should assist local districts in defining goals for gifted programs</td>
<td>97%</td>
<td></td>
</tr>
</tbody>
</table>
Table 6, continued

GOALS, LOCAL LEVEL, continued

LOCAL LEVEL

1. The local level should develop goals that are specific to
   particular programs and populations .................................................. 96%
2. The local level should state goals clearly and specifically .................. 100%
3. The local level should conduct a needs assessment ............................ 93%

ISSUE #6: DEFINITION OF THE TERM "GIFTED":

FEDERAL LEVEL

1. The federal level should conduct major conference to try to reach
   consensus on a broad definition of the term "gifted" ............................. 72%
2. Put "clout" into the already established definition so that
   it is implemented ........................................................................... panelists divided

STATE LEVEL

1. Provide guidelines for local school districts that direct the
   inclusion of a variety of giftedness .................................................. 90%
2. Provide a framework definition of "gifted" .......................................... 93%
3. Clarify types of programs that will be funded, and specify
   measurable criteria for each ............................................................ 82%

LOCAL LEVEL

1. Accept and implement the federal definition of gifted .......................... panelists divided
Discussion of Table 6. The Summary of Results of Round 3 includes the percent of panelists agreeing if above 80%, and the percent of panelists disagreeing if above 60%. If panelists were evenly divided (within 10 percentage points) this also is indicated. The complete results of Round 3 are shown in Appendix S.

There was a move toward consensus in this round. With few exceptions, statements eliciting agreement or disagreement in Round 2 did so in Round 3 as well. Eighty percent or more of the panelists agreed on 53 (of 89) actions. Following is a summary of panelists' responses at each of the three levels--federal, state and local.

Federal Level. For the first issue, Curriculum for the Gifted, 86% of the panelists believe that catalytic support should be provided for the development of model or exemplary curriculum projects for gifted students, and 97% that information on effective curriculum projects should be disseminated. Seventy-six percent do not believe that funding at either the federal or state levels should be limited to programs that have required courses rather than pull-out enrichment.

For the second issue, Procedures for Identifying Children for Gifted Programs, 97% of the panelists agree that the federal level should provide catalytic support for research on identification of children for gifted programs, this research to be shared with other levels for better decision making. They are evenly divided on whether the federal level should establish
guidelines on tests used for identifying children for gifted programs; but close to 60% (see Appendix S) do not think that any guidelines should produce a program for the gifted similar to PL 94-142 (Education for All Handicapped).

With regard to Selection and Training of teachers for the Gifted, 79% of the panelists do not believe that the federal level should be directly involved in the selection and training of teachers, and they are evenly divided as to whether the federal level should even establish guidelines on selection and training. Eighty-six percent do feel that the federal level should promote graduate level study of the gifted and talented, and provide catalytic support for fellowships and scholarships for teachers of the gifted.

Panelists (86%) think that advocacy policies should be established for Special Populations of Gifted, and they also agree (close to 80%, see Appendix S), although not as strongly, that policies and guidelines should be established at the federal level to ensure that these gifted students are reached and served. However, 72% of the panelists feel that support at the federal and state levels should not be limited to programs that identify representative populations of poor, minority and handicapped gifted students. The needs of the highly gifted should be recognized, say 90%.

Concerning Goals for Gifted Programs, the panel is evenly divided on whether the federal level should establish guidelines regarding development of creativity and intrinsic motivation as
goals of gifted programs, rather than grades and test scores, a matter about which they disagreed in Round 2. Ninety-three percent do agree, however, that the federal level should provide catalytic support for research on goals, and 90% think that the federal level should evaluate existing research for practical advice on goals.

In the matter of Definition of the Term "Gifted," panelists do not appear to think that the federal level should play much of a role. Seventy-two percent do not believe that a national conference should be convened to try to reach consensus on a broad definition of "gifted," and they are divided on whether the federal level should put "clout" into the established definition so that it is implemented. Agreement was only weak (61%) regarding the emphasis of potential rather than achievement when discussing gifted children (see Appendix S).

State Level. The state level should provide support for model projects in Curriculum for the Gifted, according to 90% of the panelists, and 83% feel that legislation should be supported to ensure that effective curricula are implemented. Further, 93% think the state level should provide assistance to local school districts in defining "differentiated curriculum." But close to 60% (see Appendix S) do not think that the state level should adopt federal guidelines regarding curriculum for the gifted. And 69% do not want the states to require that funds be used only for required courses rather than "pull-out enrichment."
With regard to Identification of Children for Gifted Programs, while they did not feel it was the responsibility of the federal level to establish guidelines for identification, 86% of the panelists do think that it is the state's job to establish such guidelines. There was almost unanimous agreement (97%) that the state level should establish identification procedures that are in compliance with the best practices determined from research, and that K-12 gifted programs be mandatory (92%).

Reflecting a current concern, 89% of the panel agreed that the definition of "gifted" should be broadened beyond the academically talented, and 93% feel that the state level should provide support of local pilot projects meeting the needs of multiple talents. The states should also recommend approaches and procedures for identification that include all parts of the definition of "gifted," according to 89% of the panel. At the same time, however, moving from a split between agreeing and disagreeing in Round 2, a small majority of the respondents also feel that inclusive policies should be adopted at the state level that would permit all children having +2 standard deviations on a standardized IQ test to receive services (see Appendix S). Ninety-two percent definitely do not feel that the entry level into gifted programs should be adjusted to fit budgets.

In the matter of Teacher Selection and Training, 93% of the panelists concur that, at the state level, standards be established for training of teachers of the gifted, 83% that certification be mandated, and 86% that funds be provided for
certification programs. And while the panelists feel that the federal level should promote gifted education at the graduate level, 69% do not believe that the state should require that gifted education be a graduate program only. There is weak support for an investigation of teacher training through alternative modes, not just through universities (see Appendix S), a matter about which the panelists were evenly divided in Round 2. Coordination of college and university training programs is not a task for the state level, 72% of the panelists feel, but 96% say that the state should support partnerships between universities and local school districts.

There was unanimous agreement that the state level should establish guidelines regarding Special Populations of Gifted Students, and that the states share knowledge regarding successful programs in minority enrollment. Panelists (83%) believe that the states should set priorities for meeting the needs of special populations of gifted. For example, funding should be provided in the form of grants and workshops to develop programs for special populations. Ninety percent of the panelists agree that development of programs and identification methods for the highly gifted should also be encouraged.

Concerning Goals for Gifted Programs, 97% of panelists agree that the state level ought to assist local school districts in defining goals.

Regarding Definition of the Term "Gifted," 93% of panelists agree that the state should provide a framework definition, and
90% feel that the state should provide guidelines to local school districts that direct the inclusion of a variety of giftedness. Although panelists do not believe that the state level should monitor districts for compliance with federal definition, 82% do think the state should clarify types of programs that will be funded, and specify measurable criteria for each.

Local Level. Curriculum matters found much agreement at the local level, with 89% to 100% of panelists agreeing with the following: Research findings on curriculum for the gifted should be implemented. Curriculum should be differentiated. Curriculum should be articulated with the regular school program, relevant to the program goals and the identification criteria, and should meet individual student needs. The curriculum should not be limited to low-level field trips and enrichment activities, and "token" gifted programs should be avoided. Inservice for teachers on appropriate curriculum for the gifted should be provided, and teachers of the gifted ought to be permitted released time in order to develop curriculum. A thorough evaluation of curriculum should be required.

Regarding Identification of Students for Gifted Programs, there was slight agreement (see Appendix S) that identification procedures need to be established that are consistent with federal and state guidelines; however, about the same number of respondents also feel that these procedures should be specific to the local student population. Eighty-two percent agree that identification procedures should be appropriate to the curriculum
offered. There is strong agreement (96%) that school psychologists and counselors be trained in the identification of gifted/talented students.

There was agreement, although not at the 80% level (see Appendix S), that, where Teacher Selection and Training is concerned, teachers should be hired who have training in gifted education as well as appropriate experience and credentials. However, panelists do not specify just what the training, experience and credentials should encompass; for example, 64% do not feel that only teachers certified in gifted education or only those having at least 3 graduate courses in gifted education be hired (62%). They almost unanimously agree (97%), however, that the local level should comply with state certification regulations. Panelists (93%) feel that the local level should design a comprehensive plan for inservice training for all teachers, whether teaching gifted students or not. This training should include both content and teaching strategies as well a emphasis on individual differences, according to 90%.

The panel is evenly divided on two items; whether national hiring searches should be used to locate teachers of the gifted, and whether financial incentives should be provided to teachers of the gifted.

While 97% of panelists agree that the local level should implement research findings regarding Special Populations of Gifted Students, 71% do not believe that tests should be renormed in order to obtain a representative population. Eighty-three
percent also believe that all underachieving students should be diagnosed at the local level, and 100% feel that accommodations for the highly gifted, such as early entrance, be allowed.

Panelists are unanimous in the belief that the local level should state Goals for Gifted Programs clearly and specifically. There was also strong agreement (96%) that goals be developed that are specific to particular programs and populations. A needs assessment should be conducted, according to 93% of the panelists.

In the matter of Definition of the Term "Gifted," panelists are nearly evenly divided over whether the local level should accept and implement a federal definition of gifted, and whether the local level should develop a definition of gifted based on grass roots origin (i.e., local colleges and schools).

Part 2

Panelists were asked to indicate, by circling "Agree" or "Disagree," their agreement or disagreement with 15 statements about the definition of "gifted." Results are show in Table 7.
Table 7

Round 3, Section 2: Panelists’ Definition of Gifted (N = 28)

<table>
<thead>
<tr>
<th>A</th>
<th>DIS N°</th>
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<tbody>
<tr>
<td>freq</td>
<td>%</td>
</tr>
</tbody>
</table>

**Giftedness is:**

1. The potential for exceptional development of specific abilities ........................................... 27 100 0 27
2. The demonstration of performance capability at the upper end of a talent continuum .......................................................... 27 100 0 27
3. Not limited by age, gender, race, socioeconomic status, or ethnicity ........................................ 27 96 1 28
4. A psychological trait descriptor of positive exceptionality ......................................................... 17 8 25

**A Gifted Child is one who:**

1. Demonstrates potential capability in general intellectual ability ............................................. 27 96 1 28
2. Demonstrates potential capability in specific academic aptitude ............................................. 27 96 1 28
3. Demonstrates potential capability in leadership ability ............................................................... 24 88 3 27
4. Demonstrates potential capability in visual and performing arts ............................................. 27 100 0 27
5. Demonstrated potential capability in creative productive thinking ........................................... 22 81 5 27
6. Is developmentally advanced in one or more areas, and exhibits the characteristics of giftedness .......................................................... 24 86 4 28
7. Is developmentally advanced and is therefore in need of a differentiated school program in order to develop at his or her own accelerated pace .......................................................... 25 90 3 28
8. Has potential or demonstrated outstanding ability in a specific talent or in multiple areas, and who requires supportive educational services in order to function at the level of his or her potential .......................................................... 27 96 1 28

**A Gifted Adult is one who:**

1. Makes independent & creative contributions to a field that can’t be ignored ............................................. 24 86 4 28
2. Shows an unusual skill, ability, or talent in one or more areas of intellect, leadership, or in the visual or performing arts ............................................. 27 96 1 28
3. Demonstrates exceptional performance in an area of value ............................................................... 21 78 6 27

*One panelist of the 29 did not complete this page, thus N = 28; others skipped some definition statements*
Discussion of Table 7. As can be seen in Table 7, 13 of the 15 statements elicited 80% or more agreement among panelists. And although the question was not asked, no panelist objected to the division of giftedness into three categories. Both potential and achievement are included in the general definition of giftedness, while potential is stressed for gifted children and achievement or performance for gifted adults. This corroborates Silverman's (1986b) contention that intelligence is composed of both global and specific factors. The young child's abilities tend to be more global (measurable by potential) and as the child ages, abilities tend to become more specific (measurable by performance).

It should be noted that one panelist did not complete this section, and some others chose to neither agree nor disagree with some of the definition statements, hence the N is less than the 29 who completed the rest of Round 3.
CHAPTER 5
SUMMARY AND CONCLUSIONS

Interest in and support for special programs for gifted students in the United States has been anything but constant, fluctuating rather widely over the past five decades. Although there has never been a total commitment to the gifted, nor has support been widespread, there were times, such as during the late 1950s and early 1960s, when gifted children were prime targets for the major curriculum reform movements. Since then, reflecting a national ambivalence, support has varied from active, when the gifted were seen as the saviors of the United States (and perhaps even the world) to practically non-existent, when the focus shifted to minorities and the handicapped, and special programs for the gifted were regarded as frivolous.

Besides the obvious societal reasons, it is possible that part of the reason for the varying levels of support is due to the numerous areas of disagreement among the experts in the field.

The purpose of this study was to identify key issues in the education of the gifted, identify actions that should be taken on these issues, and determine if disagreement among a panel of experts about these issues could be eliminated or at least reduced. By means of a Delphi study conducted among 29 experts in the field of gifted education, answers to the following questions were sought:
1. Which of the key issues (in gifted education) is perceived by a panel of experts in the field as most important?
2. Which of the issues deserves top priority?
3. What are the current definitions of the term "gifted"?
4. What action should be taken on the key issues at the federal, state and/or local level?

Summary of Major Findings

Research question 1: Which of the key issues is perceived by a panel of experts in the field as most important?

Four of the original 12 issues in the study, Teacher Selection and Training, Curriculum, Identification, and Goals, are nearly identical to the top four "key features" in programs for the gifted identified by participants in Renzulli's (1981) survey. Further, Special Populations, Curriculum, Identification, and Teacher Training are also addressed in Gallagher's (1988) "National Agenda for Educating Gifted Students: Statement of Priorities." This indicates that five of the top six issues in the Delphi study, identified 10 years earlier and addressed again two years ago, are still priorities. Definition of the term "gifted" is the only issue not addressed by either study.

In the present study, as can be seen in Table 1, mean Importance ratings for 12 issues range only from 1.321 to 2.214,
on a scale of 1 (most important) to 4 (least important). With the mean of the mean scores 1.71 and the standard deviation 0.262, it is apparent that panelists believe all of the issues are important, and it is difficult to draw any conclusions beyond this. Thus, Importance was not examined as a factor after Round 1.

Research question 2: Which of the issues deserves top priority?

Panelists changed their priorities between Rounds 1 and 2. Curriculum for the Gifted, in fifth place in the priority ratings in Round 1 (Table 2), jumped to first place in Round 2 (Table 5) with a weighted score of 58.5, exceeding the Round 1 first and second places by over 11 and 10 points respectively. There are several possible reasons for this increase.

One reason was offered by a panelist, who suggested that considerable attention is already being paid to Identification of Children for Gifted Programs and Selection and Training of Teachers for the Gifted, and very little to Curriculum for the Gifted. This was true in the past as well. In the highly influential Marland Report (Marland, 1972), two of the four Federal objectives included identification procedures (p. 70); identification using multiple means was recommended by the experts completing the Advocates' Survey (p. 29); and identification of minority groups was one of the 11 action steps to be taken by the Office of Education (p. 72-73). Regarding teachers of the gifted, expert members of the Advocates Survey (p. 34), members of the public participating in the Regional
Hearings (p. 35), as well as members of State Departments of Education responding to the States Survey (p. 48) all recommended that teacher training be targeted as an issue.

More recently, identification and teacher training have received attention through the Javits Gifted and Talented Students Education Program funding (U.S. Department of Education, 1989). In this, the Secretary of Education established identification, particularly of special populations of gifted, as one of two Absolute Priorities for the 1989 program. Further, the first two (of a total of eight) of the Secretary's Invitational Priorities included teacher training. Thus both Identification (priority 2 in the Delphi study) and Selection and Training of Teachers (priority 3) are issues that are now covered by federal priorities. However, curriculum is not specifically mentioned in the either the Absolute or the Invitational Priorities.

The timing of the Delphi study may also have been a factor in the panelists' responses. Round 1 was sent on April 30, 1989, and Round 2 on September 22, 1989; the federal announcement (U.S. Department of Education, 1989) came out on June 2, 1989. It is possible that the panelists took this federal initiative into consideration when they completed their Round 2 questionnaires.

Another possible reason for the jump in curriculum as an issue is that curriculum for all children is currently in the national focus (see, for example, Phi Delta Kappan, 71, 1990; Educational Leadership, 46, 1988), and text books with which to
teach them have come under scrutiny (Tyson-Bernstein, 1988). Thus the panel may also be reflecting a national trend.

Further, curriculum for the gifted has long been noted as an area needing attention. For example, nearly 20 years ago, curriculum was repeatedly mentioned by experts in the Advocate Survey (Marland, 1972, p. 35), and was the fourth most frequently mentioned specific recommendation made in the Regional Hearings (Marland, 1972, p. 37).

More recently, A Nation at risk: The imperative for educational reform (National Commission on Excellence in Education, 1983) urged that attention be directed to the needs of gifted students, who "may need a curriculum enriched and accelerated beyond even the needs of other students of high ability" (p. 24). And further, "Because no textbook in any subject can be geared to the needs of all students, funds should be made available to support text development in 'thin-market' areas, such as those for ... the gifted and talented" (p. 28). In addition, even some researchers outside the field (e.g., Fenstermacher, 1982; Sosniak, 1987) have been questioning just what educational experiences ought to be provided for gifted students.

So while the call has been made to address curriculum for the gifted, little has been done. The panel perceives this lack, and has established Curriculum for the Gifted as their first priority.
Research Question 3: What are the experts' definitions of the term "gifted"?

The term "gifted" was not actually defined; instead, panelists' supposed definitions emerged as descriptors of the traits of giftedness; these developed into traits pertaining to the gifted child or the gifted adult. The researcher divided the definition statements into three parts: giftedness (in general), the gifted child and the gifted adult. Thirteen of the 15 definition statements in Round 3 elicited agreement from 80% or more of the panelists. The following three definitions are derived from these 13 statements:

1. Giftedness is the potential for exceptional development of specific abilities as well as the demonstration of performance at the upper end of a talent continuum; it is not limited by age, gender, race, socioeconomic status, or ethnicity.

2. A Gifted Child is one who is developmentally advanced in one or more areas; he or she has potential or demonstrated ability in general intellectual ability, specific academic aptitude, leadership, creative productive thinking, and the visual and performing arts; because of this potential or demonstrated ability, the child requires differentiated educational services in order to function at the level of his or her potential.
3. A Gifted Adult is one who shows unusual skill, ability, or talent in one or more areas of intellect, leadership, or in the visual or performing arts; he or she makes independent and creative contributions to a field.

The agreement among panelists on these definition statements must not be misconstrued, however. In Round 2, one definition, that of Renzulli (1979), generated a split among panelists, with seven strongly agreeing and five strongly disagreeing (Table 4). Renzulli theorizes that giftedness is an interaction among three basic clusters of traits--above average ability, creativity, and task commitment--brought to bear on a potentially valuable area of performance. Children who demonstrate or are capable of developing this interaction can be considered as exhibiting gifted behavior, and thus require differentiated educational opportunities (Renzulli, 1979). Because the panelists were split, this definition did not have a mean score above 3 (Table 4), and thus was not included in the Round 3 questionnaire. So, while the definition statements in Round 3 elicited considerable agreement among the panelists, an important and widely accepted definition was not included.

Research Question 4: What action should be taken on the key issues at the federal, state and/or local level?
Federal level. At the federal level, Round 1 responses for every issue frequently contain a single word: "funding." But when funding specifics are included in Rounds 2 and 3, and panelists are able to state their preferences, they become more discriminating. They urge that catalytic support ("seed money") be provided at the federal level for such things as: dissemination of information on research and effective practices; model or exemplary projects; and certification programs, fellowships, and scholarships for teachers of the gifted.

However, panelists manifest a wariness regarding further federal involvement. Whereas federal guidelines are acceptable with regard to special populations of gifted to ensure that these students are reached and served, panelists do not think the state level should adhere to any federal guidelines regarding curriculum for the gifted. The panel is evenly divided as to whether federal guidelines should be established regarding other matters such as tests used for the identification of children for gifted programs, development of goals for gifted programs, and teacher training. No action is suggested at the federal level regarding the definition of the term "gifted."

State level. Panelists believe that standards, procedures and guidelines are the purview of the state level. Standards need to be established for the training of teachers of the gifted, and certification for teachers of the gifted should be required. Guidelines should be established regarding a framework definition of "gifted," this definition to include all parts of
the definition, that is, all types of giftedness. Further, guidelines should be set for local school districts that direct the inclusion of the many types of giftedness, and identification procedures instituted that are in compliance with the best practices determined from research. Guidelines should also be established concerning special populations of gifted, and priorities should be set for meeting the needs of this group.

Funding is also suggested at the state level. Some funding of programs should be provided, and for this, the state should clarify types of programs that will receive funds and specify measurable criteria. Financial support should also be provided in the form of grants and workshops for the development of programs for special populations of gifted, and for pilot projects designed to meet the needs of all types of giftedness as reflected in a broader definition of the term.

Since, according to the panelists, certification for teachers of the gifted ought to be mandated, they feel that the state should provide funds for such certification programs. The state also ought to encourage partnerships between universities and local school districts. However, in a seeming contradiction, the panel also supports investigating teacher training through alternative modes, not just through universities.

The state level should support legislation to ensure that effective curricula for the gifted are implemented, and it should assist local districts in defining "differentiated curriculum."
Local level. Panelists' suggestions for action to be taken at the local level are less concerned with policies, guidelines and procedures and more with what might be termed the "nitty gritty" business of educational programming for gifted students, relatively free of interference from the federal or state levels. This is especially clear in the case of curriculum for the gifted. Believing that curriculum is mostly a local matter, panelists do not want any federal curriculum guidelines adopted at the local level, nor do they want the state level involved to the extent that, for example, the local level is told that it must use its funds for required courses rather than "pull-out" enrichment, or for a rigorous content-based curriculum.

It is regarding curriculum at the local level where the greatest degree of accord was evidenced in the Delphi study. First, panelists believe that curriculum for the gifted needs to be differentiated, that is, based on the unique characteristics of gifted children. VanTassel-Baska (1988) suggests that three of these characteristics tend to distinguish the gifted from more typical learners, and should form the basis of curriculum: the capacity to learn at faster rates, to find, solve and act on problems more readily, and to manipulate abstract ideas and make connections (p. 54).

Second, curriculum must be articulated with the regular school program, rather than completely separate from it. This would be appear to be important especially in the case of part-time as opposed to full-time or special class programs. Third,
it must be relevant both to the goals of the program and to the identification criteria used to identify children for the program. And last, it should meet individual student needs. Further, research findings on curriculum for the gifted should be implemented, and complete evaluation of curriculum should be required.

Besides being relevant to the curriculum offered, panelists believe that identification criteria should be consistent with any federal and state guidelines, but at the same time, specific to the local student population. It would appear that the panel prefers that any state or federal guidelines be flexible enough to permit local control of identification. Panelists feel that research findings regarding the special populations of gifted students should be implemented. However, they emphatically do not think that tests should be renormed so that representatives of these special groups will be included in the identification procedure, nor do they feel that funding should be withheld from programs not having representative populations.

However, even at the local level, where responsibility for curriculum matters obviously rests and agreement was extremely strong, panelists are silent on just what should be taught. Thus it appears that the panelists know what they do not want, but they give little indication as to what they do want. In this matter, they seem to be looking to the federal and state levels for help. This is evident in Table 6, where they recommend that both the federal and state levels support the development of
model curriculum projects, and the federal level disseminate information on effective curriculum projects.

Panelists agree that teachers of the gifted should have training in gifted education as well as appropriate experience and credentials. However, they are unwilling to specify just what the training, experience, and credentials should encompass. Perhaps this may be due to the possibility that the panelists also would like to explore teacher training through alternative means, rather than just through universities. At the same time, however, they strongly feel that hiring at the local level should comply with state certification regulations.

All teachers, whether teaching regular or gifted students, should be provided with inservice training on content and teaching strategies to be used with gifted students, with a particular focus on individual differences among students. This would ultimately benefit all children, whether gifted, learning disabled, underachieving, minority, etc. Regarding preservice training of teachers, Whitmore (1983) points out that "gifted education specialists must convey . . . their support of the standards or guidelines that require all teachers to be knowledgeable and skilled in working with exceptional learners, including those labelled gifted," (p. 9). In this way, gifted education can be easily integrated into other special education content now being taught in teacher preparation programs.

Regarding definition of the term "gifted," the panel does not have any strong feeling about action that should be taken at
the local level. They are unsure as to whether a federal
definition of the term should be accepted at the local level, but
at the same time, they do not want a locally developed definition
based on grass roots origin, that is, by local universities and
schools. They would look to the state to provide a framework
definition, and for guidance on including the different types of
giftedness in any definition.

Conclusions

Based in the findings of this study, the following
conclusions are offered.

The issues. As they have been for twenty years, the six
issues in gifted education--Curriculum, Identification, Teacher
Selection and Training, Special Populations, Program Goals, and
Definition of "Gifted"--are still important, and apparently still
unresolved.

First Priority Issue. Curriculum for the gifted is the
first priority issue. There is concern for the whole of the
school experience of the gifted; in particular, qualitatively
different content, process skills, and product development based
on the characteristics of gifted learners.

Definition of the term "gifted." Unlike previous attempts
to define gifted, this study offers a different conceptualization
of the term with a division of the term into three sections: the
gifted child, the gifted adult, and giftedness in general. Each
of these has a differing emphasis: potential is emphasized for
the gifted child, performance for the gifted adult, and both for the general term.

**The highly gifted.** The needs of the highly gifted must be considered, or else this population may get "lost in the shuffle" of the current broader, more inclusive definition of gifted.

**Special Populations of Gifted.** Policies for special populations should be developed at the federal and state levels to ensure that these children are reached and served, and funding should be provided to develop programs for these students.

**Teachers of the gifted.** Certification of teachers for the gifted should be mandatory. The state level should establish standards for teacher training and certification, and teachers should be hired who have credentials, training in gifted education, and experience. All teachers, whether teaching gifted or regular students, should have training in the needs and characteristics of gifted students.

**Federal involvement.** Catalytic support, technical assistance, and support for research on various aspects of the six issues are needed from the federal level. Research findings should be transmitted to the state and local levels. Beyond this, there should be little federal involvement.

**Recommendations**

Combining suggestions from the literature with the findings of this dissertation, the following recommendations are made.
All levels

1. Curriculum for the gifted should be made a priority at the federal, state and local levels.

2. Studies need to be funded at all levels to encourage the development of model curriculum projects for the various types of giftedness. These curriculum projects should be differentiated, that is, based on the characteristics and resultant needs of each type of giftedness.

3. Researchers have for years discussed the excellence/equity dichotomy and its influence on special educational provisions for the gifted. And some early warning signals are currently being sent regarding the mainstreaming of gifted, for equity's sake, into regular education classes. Yet, although 23 panelists rated the issue, "Public Attitudes Towards the Gifted, Including the Equity/Excellence Dichotomy," either Very Important or Important, only one panelist gave it first priority. The researcher believes this issue, along with the closely related issue, "Advocacy Efforts for the Gifted" (which panelists rated even lower in priority), are being seriously neglected by many of the experts in the field. As the future of gifted education may hinge on the rapprochement of these two contravening forces, further inquiry is of utmost importance.

Federal level

1. The federal level should make curriculum for the gifted one of the Absolute Priorities, or at least an Invitational Priority, for the next Jacob K. Javits Gifted and Talented
Students Education Program awards.

2. The federal level is in the best position to fund research into the various issues described in this study. Findings must be conveyed to the state and local levels.

3. There is a need for information on the "best practices" for all aspects of gifted education at the state and local levels. This could be accomplished through an information clearinghouse, adequately funded at the federal level.

4. Text books specifically for the gifted should be developed. Publishers of books for this "thin market" should be encouraged by federal grants or matching funds.

5. Catalytic support, rather than policies and guidelines, is needed at the federal level.

State level

1. Certification for teachers of the gifted should be mandated, and standards for teacher training should be established.

2. Assistance in the form of flexible guidelines is needed at the state level.

Local level

1. It is the responsibility of the local level to ensure that a differentiated curriculum is provided to gifted students.

2. Inservice training on the characteristics and needs of the gifted should be provided to all teachers as well as to all other educational personnel.
Suggestions for Further Research

The purpose of this study was to identify the most important issues in the education of the gifted, to determine which of the issues has top priority, to identify actions crucial to the education of the gifted that should be taken at the federal, state and local levels, and to determine the experts' definition of the term "gifted." In addition, this study attempted to identify areas of disagreement among a panel of experts regarding the issues, and to narrow the scope of disagreement.

Because any research produces more questions than it answers, another important purpose of research is to identify ideas for further research. As a result of this study, several suggestions are offered for consideration.

1. There should be a continuation of research as to what constitutes an appropriate curriculum for the gifted.

2. A further examination of the excellence vs. equity dilemma, widespread throughout the country and apparently experienced by this panel, needs to be done, particularly in view of a possible trend toward mainstreaming the gifted. It behooves educators in the field to be cognizant of such a trend and to gather valid arguments, backed with solid data, with which to counter it.

3. Panelists agreed that 53 actions should be taken at the federal, state and local levels. The impact of these actions needs to be investigated.
4. One definition of the term "gifted," that of Renzulli (1979), provoked both strong agreement and strong disagreement among panelists. The reasons behind these strong feelings need to be explored.

5. Some of the other definitions that panelists rejected bear further investigation.

6. Panelists rejected the suggestion that a program for the gifted be developed similar to PL 94-142 for the handicapped. A study to examine the pros and cons of such a program for the gifted could be undertaken.

7. Panelists singled out the highly gifted several times, mentioning the need to develop programs as well as make special accommodations for them. Who are the highly gifted? Are the needs of the highly gifted different from those of the rest of the gifted population? If so, what are the needs of highly gifted? What should be done about them? Is a hierarchy of gifted programs suggested? These and other questions might be answered in a study focusing only on the highly gifted.

8. Although the panelists feel that certification of teachers of the gifted is necessary and that teachers should have special training and experience, they did not specify what this training and experience should be. Studies to determine just what is needed by teachers would be useful.

9. Educational implications of the three part division of the term "gifted," each having a different emphasis, should be investigated.
10. A study using another panel of experts would be useful in confirming the results of this study. Panelists' job category and level of responsibility could be considered.

11. A study using a panel of stakeholders--gifted students and their parents--would be useful for comparison with this study.

12. In-depth studies of each of the issues could help identify specific needs.

This immersion into the field has been most enlightening to the researcher. It is hoped that findings of this study will point the way to needed action at the federal, state, and local levels that will benefit all gifted children, and ultimately the nation.
DISSERTATION REFERENCES


Educational Leadership (1988), 46 (1).


Phi Delta Kappan (1990) 71 (7).

Public Law 95-561, Title IX, Part A. The Gifted and Talented Children’s Education Act of 1978, Section 902.


Appendix A

Panel for Delphi Study (N=29)

1. Alvino, James (NJ): former Editor, Gifted Children Monthly; author, books and articles on gifted; currently director, Educational Institute, Glassboro State College, Glassboro, NJ 08028

2. Benbow, Camilla (IA): University; former associate of Julian Stanley at Johns Hopkins; director, longitudinal study of mathematically precocious youth; author, books and articles on gifted; Department of Psychology, Iowa State University, Ames, IA 50011

3. Bernal, Ernesto (AZ): Culturally different gifted; Hispanic. Director, Division of Research, Northern Arizona University, Flagstaff, AZ 86101

4. Booth, John (VA): Former State Director, Programs for the Gifted; currently Educational Specialist, Programs for the Gifted, Henrico County Public Schools, PO Box 23120, 3820 Nine Mile Rd., Richmond, VA 23223

5. Callahan, Carolyn (VA): University; research and evaluation of gifted programs; author, books and articles on gifted. 262 Ruffner Hall, 405 Emmet St., University of Virginia, Charlottesville, VA 22903


7. Clark, Barbara (CA): University; "New Age" perspective; author, Growing up gifted. Department of Special Education, California State University, 5151 State University, Los Angeles, CA 90032

8. Colangelo, Nicholas (IA): University; counselling; affective development of gifted. Division of Counselor Education, N338A LC University of Iowa, Iowa City, IA 52242

9. Cox, June (TX): Director, Gifted Children's Research Institute; director, Richardson Study of programming for able learners. Texas Women's University, PO Box 23029, Denton, TX 76204

10. Feldhusen, John (IN): University; editor, Gifted Child Quarterly; director, Gifted Education Resource Institute, Purdue University, SCC-G, West Lafayette, IN 47907
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10. Feldhusen, John (IN): University; editor, Gifted Child Quarterly; director, Gifted Education Resource Institute, Purdue University, SCC-G, West Lafayette, IN 47907
11. **Fetterman, David** (CA): University; ethnographic evaluation of gifted programs; author, *Excellence and equality*. 601 Menlo Oaks Dr., Menlo Park, CA 94025

12. **Gallagher, James J.** (NC): University; author of books and articles on gifted; many years in field. Frank Porter Graham Child Development Ctr., Univ. of North Carolina, Hwy 54 Bypass West, Chapel Hill, NC 27514

13. **Gogel, Ella Mae** (IA): Chairman, CEC-TAG parent committee; author, articles on gifted. 2216 Main St., Cedar Falls, IA 50613

14. **Hanninen, Gail** (WA): State Coordinator, Programs for the Gifted, Old Capitol Building, FE-11, Olympia, WA 98504

15. **Kerr, Barbara** (IA): University; gifted females; career development for gifted; author, books and articles on gifted. 218 LC, University of Iowa, Iowa City, IA 52242

16. **Largo, Steve** (FL): former coordinator of gifted programs, Fairfax, County, VA; principal, Pine View School (public school for the gifted), 2525 Tami Sola, Sarasota, FL 34237

17. **Meeker, Mary** (CA): Director, Structure of Learning Institute (SOI); author, books and articles on gifted. 45755 Goodpasture Rd., Vida, OR 97488

18. **Mirman, Norman** (CA): Founder, Mirman School for the Gifted 16180 Mulholland Dr., Los Angeles, CA 90049

19. **Passow, A. Barry** (NY): University; long time in field; author, editor of books on gifted. Teachers College, Columbia University, New York NY 10027

20. **Renzulli, Joseph S.** (CT): University; "three-ring" concept of giftedness; author, books and articles on gifted. 231 Glenbrook Rd., Storrs Hall, Room 20, University of Connecticut, Storrs, CT 06268


22. **Rimm, Sylvia** (WI): Director, clinic for underachieving gifted; author, *Underachievement syndrome: Causes and cures* and other books and articles on gifted. W6050 Apple Rd., Watertown, WI 53094
23. **Shaklee, Beverly** (OH): University; recommended by Joanne Rand Whitmore. 404 White Hall, Kent, OH 44242

24. **Silverman, Linda K.** (CO): Director, Gifted Child Development Center; author, books and articles on gifted; editor, two journals on gifted. 29333 Spruce Canyon Dr., Golden, CO 80403

25. **Sisk, Dorothy** (TX): University; former Director, U.S. Office of Gifted and Talented; Executive Director, World Council for Gifted Talented Children; author, books and articles on gifted. Department of Curriculum and Instruction, Lamar University, PO Box 10034, Beaumont, TX 77710

26. **Tannenbaum, Abraham** (NY): University; director, gifted and talented project; many years in field; author, books and articles on gifted. 787 Caffrey Ave., West Lawrence, NY 11691

27. **VanTassel-Baska, Joyce** (VA): University; curriculum planning; disadvantaged gifted; author, books and articles on gifted. College of William and Mary, Williamsburg, VA 23185

28. **Ward, Virgil** (VA): University (emeritus); proponent of Differential Education for Gifted (DEG); author, books and articles on gifted; many years in field. 301 Kent Rd., Charlottesville, VA 22903

29. **Webb, James** (OH): University; emotional needs of gifted; co-author, *Guiding the gifted child*. School of Professional Psychology, Wright State University, Dayton, OH 45435
Appendix B

Pilot Study #1: Cover Letter to Prospective Panelists

May, 1988

Dear [Name],

Because of your interest and expertise in the field of gifted education you are invited to take part in a pilot study of future needs of the gifted. In order to bring understanding and clarification to some key issues in gifted education, Intertel Foundation, Inc., is undertaking a Delphi study of these issues. (For additional details, see the following page.)

A Delphi study is a survey of a selected panel of people knowledgeable about the questions of interest. The survey is conducted by mail over a period of several months. As panel members never meet, responses are anonymous, permitting an equal voice to students and nationally known experts alike.

Intertel Foundation, Inc., has authorized this study in order to determine how the foundation can best focus its resources. A non-profit organization established in 1986, the foundation now sponsors the Hollingworth Award, a $2000 award presented annually since 1980 for proposed research in the psychology or education of gifted children and youth. The purposes of the foundation are to:

1. promote research about the psychology and education of gifted children;
2. encourage the recognition of the special educational needs of gifted children; and

3. assist in the development of programs to enhance the education of gifted children.

How are you involved? By answering the enclosed questions about issues in gifted education from your own personal perspective. No extra reading or research is expected; it is your viewpoint that is of interest. Your answers are vitally important, as they will provide the basis for the final Delphi survey questionnaire.

Please complete the enclosed questionnaire and return it to me by June 30, 1988. A SASE is provided. Final results of the Delphi survey will be sent to you at the conclusion of the study, FYI. If your commitments are such that you cannot participate, please return the questionnaire in the SASE. If you have any questions, feel free to call or write. My home phone number is: (703) 255-0051; address: PO Box 1145, Vienna, VA 22180.

Sincerely,

Roxanne H. Cramer

encl: statement; questionnaire
Appendix C

Pilot Study #1: Problem Statement

It is generally agreed that gifted children need some kind of attention paid to their educational needs. However, among experts in the field as well as informed laymen, there is little agreement on much else. This lack of agreement is manifested at all levels: national, state, and local.

1. At the national level, the 1983 report of the National Commission on Excellence in Education sounded a call for the Federal Government to "help meet the needs of key groups of students, such as the gifted and talented, the socioeconomically disadvantaged, minorities . . . and the handicapped. In combination these groups include both national resources [italics added] and the Nation's youth who are most at risk." Five years later, however, there is still an absence of clear policy and strong leadership from the Office of Education with regard to the gifted, and as yet there is no designated fiscal support. 2. The states mirror this lack of national policy. The Council of State Directors of Programs for the Gifted report, for example, that half of the states do not have a mandate for services to gifted children; state definitions of "gifted" include more than 18 different abilities or aptitudes; state regulations or guidelines for identification of gifted children vary considerably; only 31 states have program standards to which g/t programs must adhere; and financial support for these programs
ranges from millions of dollars to 0 dollars.

3. At the local levels, variation is naturally quite great. For example, programs may serve academically talented children, creatively gifted children, or children attaining high IQ scores. These programs vary in length from one hour per week to full time. Entry criteria may include IQ, achievement or aptitude test scores; grades; recommendations by teachers, counselors, peers, self, and/or parents, to name a few. Programs may begin at the pre-school level, kindergarten, grade three, grade four, intermediate, or high school. Acceleration, enrichment, or a combination of both may be used to serve students' needs.

It is clear that, in the country as a whole, efforts aimed at helping our brightest young people to reach their potential range from excellent to erratic and fragmented to non-existent. Lack of a clear national policy hampers these efforts.

The National Commission on Excellence in Education has referred to the gifted as "national treasures." It would seem that if those most concerned with the education of these treasures could narrow the extent of disagreement on several important issues, policy makers would be better informed and the needs of those youngsters who have been identified as gifted would be better served. Planning based on informed judgments may help educational decision makers as they plan for the education of highly intelligent young people in the 21st century.

NOTE: Your comments on this statement or any aspect of the survey would be greatly appreciated.
Appendix D

Pilot Study #1: Survey of Gifted Education

These questions are purposely broad and open-ended. From your responses, the issues will be defined and the questions narrowed.

1. Please list what you consider to be the important issues at present in the education of the gifted in the U.S. Rank them in order of importance, with 1 being the most important.

2. Please explain why you consider each issue to be important.

3. What issues do you believe will be the most important issues 20 years from now? Why?

4. Describe your ideal gifted program. As you do so, please be sure to address the issues you have listed above. Be as specific and detailed as possible.

5. Please add your comments, suggestions, criticisms.

THANK YOU!

>> Please return your responses in the enclosed SASE by June 30, 1988, to:
Roxanne H. Cramer, Project Director
Intertel Foundation, Inc.
PO Box 1145, Vienna, VA 22180
Appendix E

Results of Pilot Study #1: Issues in Gifted Education

<table>
<thead>
<tr>
<th>Votes</th>
<th>Issues</th>
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<td>3</td>
<td>teachers for gifted - selection and training</td>
</tr>
<tr>
<td>3</td>
<td>public attitude towards gifted children: biased; &quot;gifted can make it on their own&quot; with no special help; taxpayers and legislators need to be convinced before support will be received</td>
</tr>
<tr>
<td>2</td>
<td>identification of gifted children: need reliable, valid measure of very high intelligence to differentiate students within the gifted population who may have different characteristics and needs</td>
</tr>
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<td>1</td>
<td>underachievement by gifted students - reversing</td>
</tr>
<tr>
<td>1</td>
<td>agreement among educators as to what constitutes appropriate education for the gifted</td>
</tr>
<tr>
<td>1</td>
<td>early childhood education of gifted -below 3rd grade</td>
</tr>
<tr>
<td>1</td>
<td>books and curricular materials at appropriate level for gifted students</td>
</tr>
<tr>
<td>1</td>
<td>counselling families and gifted students</td>
</tr>
<tr>
<td>1</td>
<td>flexible, individualized programming</td>
</tr>
<tr>
<td>1</td>
<td>scholarships for summer programs so kids can attend, e.g., Johns Hopkins</td>
</tr>
<tr>
<td>1</td>
<td>research on creativity and cognitive processes</td>
</tr>
</tbody>
</table>
higher expectations for gifted: make high achievement a social and cultural value rather than a liability

failure to teach regular education classes in ways that allow gifted to be recognized

failure to meet the social and emotional needs of gifted

definition of gifted: many different definitions; need to agree on definition before comprehensive meaningful programs can be developed

funding for gifted programs: often cut when money is tight

curriculum for gifted: acceleration should be permitted; state regulation regarding graduation should be changed

skill training: e.g., personal development; interpersonal relationships; group cooperation; problem solving; organization; research; career exploration
Appendix F

Pilot Study #2: Cover Letter

February 5, 1989

Dear ________,

Thank you so much for agreeing to assist in piloting Round 1 of Intertel Foundation’s Delphi survey of gifted education. Your time and thoughts are greatly appreciated, both for completing the questionnaire and especially for your critique of the questionnaire itself. I hope you will also be able to help pilot Rounds 2 and 3 at a later date.

You may be interested in the Delphi technique itself. Below is a brief description.

A Delphi study is a survey of a selected panel of people knowledgeable about the questions of interest. The survey is conducted by mail over a period of several months, and usually consists of three rounds of questionnaires. As panel members never meet, responses are anonymous, permitting an equal voice to all participants.

Intertel Foundation, Inc., has authorized this Delphi study in order to determine how the foundation can best focus its resources. A non-profit organization established in 1986, the foundation now sponsors the Hollingworth Award, a $2000 award presented annually since 1980 for proposed research in the psychology or education of gifted children and youth. The purposes of the foundation are: (a) to promote research about the psychology and education of gifted children; (b) to encourage the
recognition of the special educational needs of gifted children; and (c) to assist in the development of programs to enhance the education of gifted children.

Your participation in this preliminary investigation will help identify future trends and needs in the field of gifted education. Results of the Delphi study will be sent to you FYI upon completion.

Please complete the enclosed questionnaire at your earliest convenience, and return it to me by Feb. 17. A SASE is provided. If you have any questions, feel free to call or write. My home phone number is 591-1958; address: 4300 Sideburn Rd., Fairfax, VA 22030

Sincerely,

Roxanne Cramer
Appendix G

Pilot Study #2: Delphi Survey of Gifted Education

NAME: ________________________________

1-A. For each of the issues listed on page 2, please put a check in the column that indicates your estimate of its importance.

The issue is: 

<table>
<thead>
<tr>
<th>Criteria:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Very Important: highly relevant; first priority; has direct bearing on other major issues; must be resolved, dealt with, or treated</td>
</tr>
<tr>
<td>2. Important: is relevant; second-order priority; significant impact, but not until other issues are treated; does not have to be fully resolved</td>
</tr>
<tr>
<td>3. Slightly Important: insignificantly relevant; low priority; has little impact; probably not a determining factor to major issue</td>
</tr>
<tr>
<td>4. Unimportant: no relevance; no priority; no measurable effect; should be dropped as an item to consider</td>
</tr>
</tbody>
</table>

1-B. In the last column on the right on p. 2, please place your estimate of the three top priorities; number your top choice 1, second choice 2, and third choice, 3.

2. On page 3, please describe briefly the action you think should be taken at the federal, state, and/or local levels. (An additional sheet is enclosed for your convenience.)

3. On pages 4-5, please check your area(s) of expertise and interest in the field of gifted.

4. Your suggestions, comments, and criticisms about any aspect of this questionnaire are invaluable. Please write your remarks on the back of the particular page you are commenting about.
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<th>Importance of Issue</th>
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3. Please note your area(s) of interest and expertise or major responsibility in the field of gifted education by putting a check in the appropriate column.

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**PUBLICATION:**

**level:** local ___ state ___ national ___

**SPECIAL POPULATIONS OF GIFTED:**

**specify which:** __________________________

**TEACHER OF GIFTED:**

**TEACHER TRAINING:**

**OTHER: please describe:**

______________________________

______________________________

______________________________

______________________________

What is your title and position at the present? __________________________

______________________________
Appendix H

Letter Requesting Participation in Delphi Study

March 21, 1989

Dear (prospective panelist),

As one who has considerable knowledge and experience in the field of gifted education, you are invited to participate in a Delphi study on the education of gifted children and youth in the United States.

A Delphi study consists of a survey of a selected panel of people knowledgeable about the questions of interest. The survey is conducted by mail over a period of several months. As panel members never meet, responses are anonymous, permitting an equal voice to all.

Beginning in late April, the Delphi panelists, 35 experts like yourself, will respond to and return the first of three rounds of questions about issues and priorities in gifted education. Results of each round will be summarized and fed back to the panelists, who will then be asked to respond again. Each round will take approximately 30 minutes to complete. At the conclusion of the study, a final report will be sent to each panelist.

Results of the study will become part of my doctoral dissertation at Virginia Polytechnic Institute and State University entitled, Issues Related to the Education of the Gifted: A Delphi Study. It is also anticipated that several
articles will evolve from the findings of the study, which are expected to provide a synthesis of current expert opinion on the key issues in gifted education.

Supporting this Delphi study is Intertel Foundation, Inc., a non-profit organization established in 1986. The foundation now sponsors the Hollingworth Award, a $2000 award presented annually since 1980 for proposed research in the psychology and/or education of gifted children and youth.

Please indicate on the enclosed SAS postcard whether or not you will be able to take part in this important study. The card should be returned by April 7. If you have any questions, feel free to call or write. My phone number is: (703) 591-1958 (after 5:00 p.m. daily and on weekends); address: 4300 Sideburn Rd., Fairfax, VA 22030.

Your experience and professional expertise are truly important, and I would gratefully appreciate your participation.

Sincerely,

Roxanne H. Cramer

encl: SAS postcard
Appendix I

Delphi Study Participation Reminder Letter

April 18, 1989

Dear (prospective panelist),

Enclosed is a copy of my March 21 letter to you along with a SAS post card. Since I have not yet heard from you regarding your participation in the Delphi study, I thought I would write again to be sure the letter reached you last month.

The 35 members of the Delphi panel have been carefully selected with regard to representation of geographical locale, gender, and type of expertise. You are an important part of this study, and I do hope you will be able to participate.

Sincerely,

Roxanne H. Cramer

encl: copy of March 21 letter; SAS post card
Appendix J
Delphi Study Round 1: Cover Letter
April 30, 1989

Dear (panelist),

Thank you so much for agreeing to participate in the Delphi study of gifted education.

Enclosed is the first of three rounds of questionnaires for this study. Please complete and return it in the enclosed SAS envelope so that it reaches me by Friday, May 19. Your prompt response would be appreciated so that the data can be analyzed and returned to you for the second round.

If you have any questions, please don’t hesitate to write or call. My home phone number is (703) 591-1958 (after 5 pm and on week ends). In an emergency, my work number is (703) 938-8086.

Sincerely,

Roxanne H. Cramer

encl: questionnaire #1; SAS envelope
Appendix K

Delphi Study Round 1: Delphi Survey of Gifted Education

NAME: ____________________________

Part 1. For each of the issues listed on page 2, please put a check in the column that indicates your estimate of its importance.

The issue is:  

Criteria:

1 Very Important:  
highly relevant; first priority; has direct bearing on other major issues; must be resolved, dealt with, or treated

2 Important:  
is relevant; second-order priority; significant impact, but not until other issues are treated; does not have to be fully resolved

3 Slightly Important:  
somewhat relevant; low priority; has little impact; probably not a determining factor to major issue

4 Of little importance:  
little relevance; lowest priority; little measurable effect

Part 2. In the last column on the right on p. 2, please place your estimate of the three top priorities; number your top choice 1, second choice 2, and third choice, 3.

Part 3. On page 3, for each issue you rated "very important" or "important," please describe briefly action you think should be taken at the federal, state, and/or local levels. (An additional sheet is enclosed for your convenience.)

Part 4. On page 5, please write your definition of the term "gifted".

177
<table>
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<th>Parts 1 and 2</th>
<th>IMPORTANCE OF ISSUE</th>
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Part 3. For each issue you rated **Very Important** (1), please explain briefly what action you think should be taken. In other words, if you feel that DEFINITION OF THE TERM "GIFTED" is very important, what do you think should be done about defining gifted at the federal, state, and/or local levels?

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Part 4. Please write your definition of the term "gifted":
Appendix L

Delphi Study Round 1: Follow-up Letter to Panelists

May 29, 1989

Dear (panelist),

Just a note to remind you that the due date for return of the Delphi study questionnaire was May 17. On the chance that the first questionnaire did not reach you, or that your response did not reach me, or that everything got buried on your desk somewhere, I am enclosing another questionnaire for your convenience, along with a SASE.

The panel has been carefully selected, and it is crucial that responses are received from all panelists who agreed to take part in the study.

If you have any questions, please don’t hesitate to write or call. I can be reached evenings after 5 and on weekends at (703) 591-1958; during the day (emergency only) at (703) 938-8086. Thanks again for your participation!

Sincerely,

Roxanne H. Cramer

encl: questionnaire; SASE
Appendix M

Round 1: Panelists' Responses, Suggested Action at Federal State and Local Levels for all Issues Rated 1 (Very Important)

Issue 1: Definition of the term "Gifted"

Federal Level
- Conduct a major conference to try to reach a consensus on a broad definition
- Reestablish national center to disseminate information; establish basic guidelines, e.g., define basic types of gifted
  - Federal definition
  - Emphasis on potential rather than achievement when we discuss children; creativity; self-initiative; intrinsic motivation
  - [Federal has already defined gifted] but not in effect
- Maintain and disseminate a broad definition including multiple types of giftedness: visual/performing arts, leadership, specific academic aptitude, kinesthetic
  - Establish [definition]
  - Should be defined by federal office for gifted/talented
  - Support research
  - [Definition] should be established at this level, with allowance for modifications at state and local levels within prescribed limits
  - Policy-level decision to identify and fund
  - Put some clout into the established definition so that it is implemented

State Level
- Provide guidelines that direct the inclusion of a variety of giftedness
  - Clarify types of programs they will fund and criteria for each; accumulate local level data on evolving definitions of gifted based on practice
- Establishment of consensual definitions, target groups, evaluative criteria, etc.; supplemental funding of local initiatives where responsibly requested, not across the board

- Provide guidelines that include a comprehensive definition of giftedness to local school districts

- Define procedure
- Accept federal definition
- States should provide a framework definition
- Develop guidelines
- Should comply with federal definition; monitor districts' compliance to be eligible for federal funding
- Broaden perspectives; inclusive definitions
- Broaden definitions so that they reach more than the academically talented

Local Level
- Refine definition based on practice in the field

- Definition is a scholarly function, grass roots origin proper (i.e., local colleges and local schools); untrammeled inquiry is paramount

- Provide guidelines for broad definition and encourage teachers to identify multiple talents
- Implement [federal definition]
- Accept federal [definition]
- Schools should establish their own definition within state framework
- Develop a plan that reflects local definition
- Should comply with state/federal definition to be eligible for federal and state funding
- Broaden perspectives; inclusive definitions
- Local districts should define "gifted" in terms of their student population
- Broaden definitions so that they include more than the academically talented

**Issue 2: Procedures for Identifying Children for Gifted Programs**

**Federal Level**

- Stress use of measures beyond standardized achievement tests; incorporate into funding requirements
- Programs should receive support only if identification procedures are appropriate to curriculum offered
- State write rules and regulations
- Support research
- Recommended tests
- Set minimum criteria
- Recommend procedures
- Leadership to de-emphasize identification and emphasize selection
- Should assist states in developing procedures; supply guidelines and restrictions; special attention to special populations
- Provide funds for model projects that identify and serve multiple talents; match test with type of talent
- Federal guidelines which will produce program similar to PL 94-142
- Share knowledge and research for better decision making

**State Level**

- State regulations that match federal that make K-12 program mandatory
- Provide funds for local education programs to develop pilot projects to meet the needs of multiple talents
- Should develop procedures consistent with federal guidelines and assist local districts in doing the same; monitor local compliance
- Leadership to de-emphasize identification and emphasize selection

- Recommend procedures

- Define procedures

- Florida has consistent criteria; should be expanded to include other special populations

- Recommend tests

- Develop guidelines

- Should provide recommended approaches to identification for all parts of definition

- Encourage [teacher] prep. programs to include preparation and knowledge of identification theories and practices

- States write rules and regulations

- Programs should receive support only if identification procedures are appropriate to curriculum offered

- Stress use of measures beyond standardized achievement tests; incorporate into funding regulations

- Make decisions/regulations re. range of options

- Ensure that identification procedures comply with best practices from research

Local Level

- Translate into policy and procedures

- Programs should receive support only if identification procedures are appropriate to curriculum offered

- Local school boards adopt rules and regulations written by state

- Training for school psychologists and counselors as well as g/t personnel

- Should select from recommended instruments, or may choose others

- Develop a plan that reflects local definition

- Identification procedures and scheduling of time and funds
- Define specifics
- Concentrate on finding able learners and educating them
- Develop procedures consistent with state and federal guidelines, but specific to student populations
- Encourage local schools and administrators to develop programs for multiply talented students
- Implement state and federal regulations

**Issue 3: Administrative Structure of Programs for the Gifted**

**Federal Level**
- Establish funding for trained administrators/coordinators and for training such leaders
- Provide a research base for appropriate and effective administrative models that facilitate delivery of services to greatest numbers in most cost-effective ways
- Pilot various model structures
- Guidelines
- Program models funding dependent on required subject areas, not enrichment
- Share knowledge for better decision making
- Set standards for alternatives set by review of literature and research

**State Level**
- For funding, require minimum of 4.5 hours in required subject areas
- Carry out federal guidelines
- Pilot various model structures
- Adapt federal data and models to fit specific state administrative models; recommend to local districts how to improvement at their level
- Limit the responsibilities of the g/t consultant so that this person can focus full attention on program development and evaluation in g/t

- Act on standards through encouragement and leadership in continuum of service model

Local Level

- Continuum of services should be provided

- The administrative structure should be determined at a high administrative level after arriving at a consensus with other administrators and teachers

- Provide realistic job descriptions of g/t administrators (currently these job descriptions are a joke; you would have to be 3 people to do the job)

- Apply, adapt and implement state and federal models to fit local needs

- Carry out federal guidelines and state rules and regulations

- Translate into program design and practice

- Make decisions re. structure

- Act on standards in programs

**Issue 4: Goals of Gifted Programs**

Federal Level

- Provide as part of general policy/philosophy statement as well as those that can be derived from research base

- Goal should be to produce a gifted adult

- Evaluate existing research for practical advice
  - Support research

- Needs assessment; consensus finding across a broad range of definitions

- Federal guidelines

- Stress development of creativity and intrinsic motivations, not grades or test scores, for programs to be funded; work with university admissions officers on these issues
- Expand to include (1) appropriate education for gifted/talented and (2) leadership role in new ideas and learning models for general education

State Level
- Goals must be consistent with those of federal level
- Goal should be to produce a gifted adult
- Assist schools in defining goals
- Structure gifted goals in light of the other goals for other segments of our students
- State general goals
- Guided by state level
- Needs assessment
- State rules and regulations
- Expand to include (1) appropriate education for g/t, and (2) leadership role in new ideas and learning models for general education

Local Level
- Incorporate state/federal goals into local programs and write local goals that are specific to particular programs and populations
- Goal should be to produce a gifted adult
- Develop goals
- "Sell" each program to parents and teachers via organizations and pressure groups
- Define specifics
- Clarify goals
- Local refinement
- Need to be clearly stated at local level
- Needs assessment; specific consensus finding for local district
- Make explicit the goals of creativity self-initiative and risk-taking rather than conformity to teacher or testmaker expectations

- Expand to include (1) appropriate education for g/t; and (2) leadership role in new ideas and learning models for general education

**Issue 5: Special Populations of Gifted**

Federal Level

- Fund no project that did not identify representative populations of poor, minority and handicapped; require renorming of test scores for sub-populations

- Federal mandate on reaching and serving special populations

- Research; recommended program models; funding should be federal and state

- Support research

- Research and development on identification

- Key to America’s future, since we can no longer import gifted people as we did during and after WW II

- Set priorities for meeting needs of specific populations as well as programmatic goals; back up priorities with funding

- Fund special programs

- Policy decision to fund and advocate for special populations

- Funds and guidelines

- Set standards for reading neglected populations without watering down program

- Provide funding for special projects to find and serve all special populations; make these a priority in definition

- Dedicate funding for these groups; withhold funds if not included

- Support research; share with other agencies involved in the same task
State Level

- Fund no project that did not identify representative populations of poor, minority and handicapped; require renorming of test scores for sub-populations
- Write procedures
- Research recommended program models; funding should be federal and state
- Develop guidelines
- Develop guidelines for identification and programs
- The key to de-emphasis of identification and emphasis of selection
- Set priorities for meeting needs of specific populations as well as programmatic goals; back up priorities with funding; be consistent with federal priorities to be eligible for funding; monitor local compliance
- Fund special programs
- Inclusive definitions, identification and funding
- Funds and guidelines
- Identify and assist [school systems having] successful and unsuccessful programs in the areas of minority enrollment; provide ideas to improve; share knowledge gained from successful programs
- Give state support, e.g. grants, workshops, priority, etc., to the development of special programs to sever underachievers, etc.
- Support research; share with other agencies involved in the same task

Local Level

- Implement renorming of test and teacher data to get representative population
- Carry out [federal] mandate
- Research recommended program models
- Develop an action plan
- Deliver service

- Implement programs for special populations according to state/federal priorities; adjust identification procedures [so that they are in accordance with] federal and state guidelines

- Inservice

- Staff development in g/t and regular education for identification and programming

- Special attention should be given to these groups that are frequently underrepresented

- Funds and guidelines

- Local level should experiment with identification criteria and curriculum for minorities (in attempt to raise numbers and serve neglected gifted minorities, etc.)

- Allow all underachieving students to receive a thorough educational diagnosis - individual IQ tests, etc.; begin preschool and K-3 programs; allow gifted children with learning disabilities access to programs for g/t and provide tutoring; develop equitable identification criteria to serve minority student; do not test students to see if they are "still gifted" as this penalizes females; ban the term "overachiever" -- a sexist concept

- Implement [research] findings

**Issue #6: Teacher Selection and Training**

**Federal Level**

- Selective funding of local initiatives according to criterial readiness

- Federal guidelines

- Funding for teacher training through alternative modes (not just universities)

- Establish fellowships and scholarships for teacher education for teachers of the gifted

- Standards for professional development

- Support teacher training programs

- Guidelines for universities to include individual differences and psychology courses
- Funds

- Provide programs for certification and review of state certification programs to make sure there are basic acceptable standards across states

- Policy studies

- Provide research base from which states/universities and local districts can tap re. effective pre- and inservice training teachers of gifted need

- Fund teacher training programs in g/t; fund doctoral level study of g/t; provide criteria for determining excellence in teacher training and award institutions for achieving these standards; promote teacher certification

- Provide funding for scholarship to train teachers and develop teacher training program

- Provide funds for teacher training

- Standards for skills and competencies needed; encourage training
  - No Federal involvement

- Federal involvement not critical at this point

State Level

- Draw from federal research base, work with states' universities in determining preservice/inservice needs; mandate certification program

- Require certification

- Tie to merit raises

- Support local training

- Establish state standards, e.g., certification, etc.; provide programs for certification

- Fund; coordinate college/university training programs

- Require expanded certification and course work

- Require college courses on assessment SOI, individual differences and matching curriculum strategies

- Support teacher training programs
- State responsibility college courses
- Mandate gifted as graduate program only—masters or higher; state standards for certification
- Certification
- Fund teacher training through alternative modes (not just universities)
- State certification and endorsements
- Reinforcing through supplemental (not primary) funding criterially justifiable program initiatives
- Develop certification requirements and provide funds for inservices of teachers on psychology of gifted, curriculum strategies, and guidance and counseling
- Set requirements to certification of all full-time teachers of gifted and require training for all teachers who work with gifted students
- Establish endorsement and certification requirements with at least 24 semester hours of graduate training in identification, assessment, psychology, curriculum instructional strategies, counseling, practicum or internship, program models and evaluation and specific subject areas (optional), e.g., math for the gifted
- Support partnerships between universities and districts; adopt standards

Local Level
- Hire only trained teachers in g/t; staff development for all professional education personnel
- Inservice
- Develop comprehensive plans for staff training
- Require college course on assessment, SOI, individual differences, and matching curriculum strategies
- Set criteria for selection; define training sequence;
- Vigorous effort to select best candidates with appropriate experience and credentials
- Develop teacher training plan
- Tie to merit raises
- Financial initiative to teachers of g/t
- Comply with state certification requirements; conduct local inservice for all teachers in district, gifted or not
- Hire trained personnel to work with the gifted; employ national searches through placement opportunities at the U. of GA; only allow local teachers to teach gifted on provisional certificates and require them to obtain graduate training to keep their jobs
- Hire only certified teachers; develop inservice program to provide training for teachers of gifted students
- Require that teachers of the gifted be certified; offer inservice
- Teachers should be trained in both content and teaching strategies, with special emphasis on individual differences
- Primary responsibility and accountability, pursuant upon professional inquiry, reflection and administrative leadership
- Hire qualified teachers
- Policies to require at least equivalent to 3 graduate courses for teachers
- Implement partnerships and use of standards

Issue 7: Curriculum for the Gifted

Federal Level
- Funding of model projects; evaluation of current efforts
- Rigorous content-based curricula needs support
- Identify projects that have proven effective in multicultural settings; identify most effective and least effective approaches generally
- Funds and guidelines
- Require funds to be used for required courses, not pull-out enrichment
- Federal guidelines, providing possible curriculum
- All levels: development and adaptation but no reason for every school to reinvent the wheel

- Support curriculum development [projects]

- Provide guidelines from research base of curriculum models that reflect appropriate content and structure for gifted learners

- Funding should be provided at all levels, federal, state and local

- Experiment and disseminate useful curriculum; fund efforts to develop exemplary curriculum

- Support conferences, committees, etc. that design and disseminate ideal curriculum

- Encourage innovation and use of new information (e.g., brain research on learning)

State Level

- Monitor and share curriculum; help develop model curriculum

- Adopt federal guidelines; provide strong leadership to districts as to what constitutes "differentiated" curriculum; avoid setting minimum standards

- Support curriculum development projects

- Development and adaptation

- Refine and develop [according to federal guidelines]

- Require funds to be used for required courses, not "pull-out" enrichment

- Make it part of approved programs

- Pursue legislation/regulations to ensure that effective curricula are implemented

- Rigorous content-based curricula needs support

- Fund model projects; evaluate current efforts

- Encourage innovation and use of new information (e.g., brain research on learning)
Local Level
- Thorough evaluation of curriculum
- Inservice
- Eschew token programs for g/t
- Include counselors in programs
- Address required courses
- Choose from curricular possibilities
- Development and adaptation
- Allow release time for curriculum development activity
- Must see to it that curriculum is sufficiently differentiated—should undergo state review if funding is at issue; most work to move beyond low-level field trips and enrichment activities
- If differentiated, the curriculum for the gifted should be carefully articulated with the regular program; develop curriculum relevant to goals of program and identification criteria continually; modify curriculum to meet individual student needs
- Implement [research findings]

Issue 8: Evaluation of Gifted Programs

Federal Level
- Develop federal standards and recommended scheduling of state and local evaluations; conduct evaluations of federally funded pilot projects for knowledge development and compliance
- Mandate evaluation as contingent upon funding
- Fund model evaluation projects at the LEA in academic, visual and performing arts
- Should set guidelines for state and local levels; should maintain data base of effective evaluation strategies/models for dissemination to states and districts; should require evaluation for federal funding
- [Evaluation] for federal research projects
- Federal mandate that evaluation be a component (built in) of the curriculum chosen

- Identify projects that have proven effective in multicultural settings; identify most effective and least effective approaches generally

- Support research related to [evaluation]

**State Level**

- Develop general standards

- Require accountability

- State delineate [federal mandate that evaluation be built in component of curriculum chosen] and refine

- Consultant service available

- Develop guidelines, instruments, manuals

- Require evaluation component of state-funded programs; assist districts in formulating such a component; analyze data to make programmatic changes

- Florida is developing promising model that could have national implications

- Develop formative and summative guidelines for internal and external evaluation

- Evaluation required and enforced; g/t personnel prepared to evaluate effectively

- Conduct .... evaluations of local programs to make sure they are following guidelines that go with funding; make sure they are serving gifted as only high achievers

**Local Level**

- Local self-evaluations should be conducted on a routine basis; in addition to internal evaluation, external evaluations are needed on a less frequent basis to make sure the program is on track serving the target population in an effective manner (also to gauge success of program including relations with school and community)

- Evaluation should be both formative and summative
- Evaluation as an integral part of the program
- [Evaluation] required for all aspects of LEA programs
- Implement two-tier evaluation: program and student; former should comply with state and federal guidelines; latter to be based on individual needs, how well program is suited to meeting students' needs
- Develop evaluation plan
- Carry out [federal mandate for evaluation]
- Periodic review of local g/t programs

**Issue 9: Funding of Gifted Programs**

**Federal Level**

- Obtain more support for gifted education; increase funding; elicit support from industry (our economy as well as our democracy depends upon nurturing our intellectual resources)
- Lobby for increased funding; provide supplementary support for special circumstances, including affirmative action
- Funding should be provided
- Continued funding of research and development units
- Should continue and increase level of federal funding; a federal initiative is important as catalyst and for public awareness
- Research and training; model projects
- Innovative programs
- Funds for model programs, research and development
- Fund research and disseminate findings
- Increase support focused on issues g/t can support that are Congressional priorities

**State Level**

- State provide larger percentage of funds for gifted programs
- State provide partial funding to districts for all gifted programming
- We need to fund full-time programs!
- Mandate and fund
- Lobby for increased funding -- matching funding of programs for similar programs
- Increase level of state funding and find ways of preserving the levels of funding achieved; explore cooperative ventures with business community; require all districts in state to serve the gifted and provide state assistance toward that end

Local Level
- Local provide approx. 1/4 of funds
- Local commitment with matching funding
- Provide direct funding to g/t programs
- Should not depend exclusively on, but should supplement, state and federal funding
- Make gifted education both a priority and a non-negotiable line item at the district level so that it is not at risk for being wiped out at the next budget cut; you can't wipe out handicapped education; it is inappropriate to eliminate gifted education
- Need funding to operate sufficient in fashion that will serve as high a number of identified gifted as [possible
- Percentage of local support to g/t programs
- Increase support

Issue 10: Public Attitudes Toward the Gifted.

Federal Level
- Mount a national campaign to stop scapegoating the gifted (it helps no one and hurts everyone); develop a program to increase national pride in our gifted instead of ignorance and neglect
- Develop nationwide campaign to address attitudes towards gifted
- Funding of programs to investigate sources of negative feelings; increased funding for all programs including "at risk"
- A national effort
- Written communication
- Must take leadership role in shaping public opinion, particularly in overcoming equity/excellence dichotomy; should proliferate attitude that gifted helps all
- Federal level needs to take lead to reduce hostility to gifted; national priority, e.g., to help in international competition, technological advances, etc.
- Educate with focus on promoting appropriate education for all students
- Need more involvement of business people and other decision-makers, and a national marketing campaign

State Level
- Should implement state-wide programs for special populations; should develop methods of integrating principles and strategies of g/t into general education program; should conduct state-wide publicity efforts
- Professional/lay conferences; publications
- Continue a national effort
- Showcase multiculturally effective programs
- Fund programs to investigate sources of negative feelings
- Work on statewide campaign and coordination
- Educate with focus on promoting appropriate education for all students

Local Level
- Provide strict censure against any school personnel who ridicule the gifted; support parent advocacy groups; provide parent education; involve gifted students in community service and publicize these efforts
- Public relations efforts
- Formative evaluation studies; meaningful involvement of otherwise disenfranchised parents
- School and parent chapters and local community continue [federal and state] efforts
- Public meetings for parents
- Orientation [????]; awareness sessions
- Frequent communication in the form of newsletters, etc. should occur between school and community as to the benefits of g/t program
- Develop local public relations
- More coordination among local parent groups
- Education with focus on promoting appropriate education for all students

Issue 11: Advocacy Efforts for Gifted Children

Federal Level
- Office of Gifted and Talented should assist states in developing advocacy groups and plans that build public support; push for state legislation and funding
- Leadership to showcase multiculturally effective programs; dissemination; review
- Encourage advocacy
- Parent and education groups will need to recognize importance of continued advocacy
- A national effort
- Lobby ----- to help establish as national priority along with other useful program

State Level
- Encourage parent advocacy groups at the state level and provide in-kind assistance for their establishment; have media coverage of awareness events
- State coordinator should create advocacy network of teachers, parents, administrators, university personnel that seek to pass legislation and obtain funding, sponsor programs, work with local districts
- Parent and education groups will need to recognize importance of continued advocacy
- Encourage advocacy

Local Level
- Build advocacy through good program PR, community relations, special exhibits, performances, etc.
- Develop advocacy plan
- Support parent advocacy groups
- Involve gifted students in community service and publicize these efforts
- Parent/teacher/community local advocacy groups
- Parent and education groups will need to recognize need for continued advocacy

Issue 12: Counseling the Gifted

Federal Level
- Recognize the fact that many gifted children are seriously at-risk in our schools and conscientiously support the development of counseling services, counselor training programs focused on g/t students, and preventive counseling in the classroom
- Recognized need
- Fund special programs, also training for counselors
- Innovative programs
- Federal requirement for gifted programs
- Support training efforts
- Provide clearing house for statistical studies of particular needs (emotional) of gifted (and others)
State Level

- Provide training for counselors on the special needs of the gifted; provide training for teachers on counseling the gifted; provide workshops for parents on danger signs and how to deal with them; fund counselors or teacher/counselors in g/t throughout the state

- Broaden counselor role and prepare to work with g/t students in career as well as personal support issues

- Fund special programs, also training for counselors

- Provision for specialized career counseling for g/t

- Support training; provide publications

- Dissemination of models

- Rules and regulations from state

- Should be included in training for teachers

- Promote guidance counselors and psychologists to be aware of special needs and cover educational and practical means of overseeing and reaction to them

- Support training efforts

Local Level

- Hire counselors trained in the specific problems and issues of gifted students to do preventive counseling with students and families; train classroom teachers to conduct seminars and to do crisis intervention (be flexible in student placement)

- Counseling is required for gifted students just as it is for all students

- Systematic counseling made available; trained counselors

- Fund special programs, also training for counselors

- Train counselors to work with g/t

- Should be an integral part of local program dimensions should include; career, social problems, psychological problems, etc.

- Designating junior high and high school counselor [to] work with g/t students in scheduling and advising
- Provide direct counseling service
- Included in all programs; counselors should all have training for gifted - should be a course requirement
- [Rules and regulations made by state] carried out by local districts' counselors and teachers
- Specialized services needed at local level
- "Watchdog" committees to ensure proper and adequate adherence to principles, identification of at-risk students, and remedial action
- Support training and program component relating to this [service ??]

Other Issues Suggested by Panelists

A. Quality of other educational programs for other segments of intellectual spectrum

Federal Level
- Clear-cut aims for each segment should be enunciated

State Level
- Be certain state aims utilize federal practical results and fully provide for all students' educational needs

Local Level
- "Sell" each program to parents and teachers via organizations and pressure groups

B. Highly gifted

Federal Level
- The highly gifted have unique needs that are being systematically ignored throughout the country; make them known

State Level
- Encourage development of special programs and identification methods for the highly gifted
Local Level
- Allow early entrance, acceleration, early credit for college programs, mentorships, individualized programs, home schooling, special schools, International Baccalaureate programs

C. Theoretical foundations

Federal Level
- Federal policy and financing utterly tragic; witness Marland Report, 1970 and deteriorative aftermath, political motif and dollar power made uppermost over philosophy, science and profession

State Level
- No responsibility; studious avoidance of state policy, coercion inescapable

Local Level
- A philosophical problem, first priority among top three; societal initiative, grass roots (local higher education; local communities, schools) inquiry, absolutely untrammeled free inquiry is of the essence

D. Stop reform movement to abolish grouping

E. Training for administrators; they, not teachers, are the decision makers

F. Use of gifted programs to resegregate our schools, not only by race but by economic class
Appendix N

Round 1: Panelists’ Responses: Definition of the term "gifted"

- Giftedness in the context of schools should apply to the potential for exceptional intellectual ability in any field that could lead to an original contribution. This must apply to 20-25% of the population, if we include "multiple" intelligences (Gardner). We must assume that this potential is available in equal proportions in all populations.

- Gifted students are those students in kindergarten through grade 12 whose abilities and potential for accomplishment are so outstanding that they require differentiated programs to meet their individual and social needs.

- The term, "gifted," a convenient verbal designation for the psychological trait descriptor of positive exceptionality among human beings, is conventionally taken to mean an inter-individual state of being -- in kind, either general or specific (i.e., the statistical factors of "g" and/or "s") or operationally feasible combinations of both -- which condition of the person is inherently qualified (i.e., of practical necessity) by: (a) sufficient durability to certify to the fact of existence; (b) sufficient extremity or atypicality, i.e., degree of positive deviance, to warrant social and professional consideration; and (c) sufficient significance and promise, personally and/or socially, to justify exceptional educational nurture, also extraordinary in ways commensurate with the trait itself, in home, school or community.

- Gifted children are those who show advanced development in one or more areas and who exhibit characteristics of giftedness (e.g., early progression through the developmental milestones, curiosity, rapid learning ability) good memory, fascination with books, unusual abilities with puzzles, mazes, numbers, or language, extensive vocabulary, precocious intellectual abilities (mental age well beyond chronological age), creative imagination, perfectionism, and sensitivity.

- The gifted child is defined as one who is developmentally advanced in one or more areas, and is therefore in need of differentiated programming in order to develop at his or her own accelerated pace.

- In the constraint of "education" we limit "gifted" to intellectually gifted and/or academically talented. I do not believe you can separate these except in special cases. So, intellectually gifted and/or academically talented learn easily and well. They seek to do so with understanding of underlying principles and with attempts to generalize from the specific. In most cases, they are self-motivating risk takers. We should be
able to "triage" the gifted by grade 3 at the latest.

- For adults: Those persons who show an unusual skill, ability or talent in one or more areas of intellect, leadership, or visual or performing arts.

- For children: Those children who manifest indicators suggesting that they possess the potential to subsequently show unusual skill, ability or talent in one or more areas of intellect, leadership, or visual or performing arts.

- A person, who due to outstanding ability, is capable of outstanding performance. I personally do not have problems with using objective measures of this "outstanding ability," i.e., IQ tests, achievement tests, etc. What should be considered is a composite, holistic look at individual kids. What is important to me is what gifted programs do to encourage kids to use their "gifts." There are many possible ways to share their abilities, but it all should be directed toward a final "something." (It should be no surprise that Renzulli's Enrichment Triad makes a lot of sense to me.)

- Many definitions depending on type of gifted, e.g.,
  1. gifted: top 3-5% of population; 130 IQ + 99 %ile; achievement tests, teacher nomination, grades
  2. gifted: leadership
  3. gifted: visual and performing arts
  4. gifted: specific academic 95-99%ile; in .... achievement tests in specific areas

Generally I focus on intellectually gifted, of which as you can see there are many kinds, e.g.,
  1. underachieving: high IQ, low achievement scores
  2. gifted: specific achievement: high 95-99%ile; scores in achievement in specific area
  3. gifted general: potential high or high IQ, high achievement scores

Gifted is an individual with a high intellectual potential, insightful thinking capabilities, and capable of producing creative and useful efforts (typically beyond their chronological peers and/or the majority of the population.

- Federal definition

- Students who either have demonstrated that the curriculum does not meet their individual needs or that have the potential for outstanding accomplishment in a meaningful endeavor.

- "Gifted" are those children or students who are ab-normal by virtue of gratuitous endowments that their age-mates do not enjoy; who by virtue of these endowments and/or special nurturing or training have exhibited exceptional behavior/performance, or
the potential thereof; and by virtue of being thusly differentiated from their age-mates, require special provisions that develop their abilities, nurture the social/emotional/psychological dimensions of their being relative to the norm, provide productive channels for the expressions of their giftedness (i.e., abnormalities).

- A gifted student is one who has the ability to excel in one or more areas of intelligence (a la Howard Gardner)

- 1. Cognitive giftedness: scoring above the 8th stanine on at least 6 of the SOI Learning Abilities
   2. Talent: sports, arts and dance, music, writing

- Demonstrated or potential performance capability at the upper end of some talent continua.

- Those who demonstrate exceptional performance or potential in an area of value that requires either high level or skill or intellect in order to attain prominence.

- Gifted behavior consists of behaviors that reflect an interaction among three basic clusters of human traits - these clusters being above average general and/or specific abilities, high levels of task commitment, and high levels of creativity. Gifted and talented children are those possessing or capable of developing this composite set of traits and applying them to any potentially valuable area of human performance. Children who manifest or are capable of developing an interaction among the three clusters require a wide variety of educational opportunities and services that are not ordinarily provided through regular instructional programs.

- The potential for exceptional development of specific abilities. It is not limited by age, gender, race, socioeconomic status, or ethnicity.

- Gifted refers to those individuals who have potential or have demonstrated outstanding ability in a specific talent or in multiple areas, e.g., in science, theater, writing, etc., and who require supportive educational services in order to function at the level of his/her potential.

- People who have superior general ability, talent or aptitude.

- An individual, usually one who has reached young adulthood or later age, who makes independent and creative contributions to a field that cannot be ignored.

- A gifted individual is one who has the innate talents and intrinsic motivation to achieve outstanding performance in one or more areas of human endeavor.
Giftedness is a biologically rooted concept, a label for a high level of intelligence that results from advanced and accelerated integration of functions within the brain, including physical sensing, emotions, cognition, and intuition. Such advanced and accelerated function may be expressed through abilities such as those involved in creativity, academic aptitude, problem solving, leadership, or visual and performing arts. Gifted individuals may be performing or show promise of performing at levels that require services or activities not ordinarily provided by schools as they are now organized.

- Definitions are always operational and one can do everything else without consensus on definition.

- There is no one definition.
Appendix O

Delphi Study Round 2: Cover Letter

September 22, 1989

Dear (panelist),

Thank you so much for the time and effort you put into Round 1 of the Delphi study. Your expert opinion is most valuable to this study. Enclosed is Round 2, most of which involves circling numbers. It should take you approximately 35 minutes.

In Round 1 you were asked to rate 12 issues in gifted education in terms of their importance. As you may recall, the issues were to be rated on a scale of 1 to 4, with 1 as most important. You were also asked to note your top three priorities.

The attached summary chart shows the issues in order of priority. In the last column on the right are the mean ratings of importance as determined by the panel.

The 28 panelists felt that all 12 issues were important; means ranged only from 1.321 to 2.214. However, due to the length of the questionnaire that would have resulted had all suggested actions at the federal, state and local levels for all 12 issues been included, it was decided to investigate further only the first six priority issues. Thus, in Section 1 of Round 2, you will find panelists' suggestions only for these six issues. Please indicate, by circling a number, your estimation of the importance to gifted education of each suggested action. Additional comments, clarifications, explanations, etc., may be
written on the sheet provided at the end of the questionnaire.

Also in Round 1 you were asked to state your definition of the term "gifted." As you will note in Section 2 of Round 2, the definitions seemed to fall into three parts: giftedness, gifted children, and gifted adults. For this section please indicate your agreement or disagreement with each statement. Note that there is space for additional statements as well as for comments. At the end of the questionnaire is a form on which you are asked again to rate the top six issues in terms of priority.

So that the study may proceed in a timely fashion, it is critical that you return the questionnaire by OCTOBER 6 in the enclosed SASE. If you have any questions, please call collect (703) 591-1958 evenings after 5:00 and week ends. In an emergency, I can be reached during the day at (703) 938-8086.

Thanks again for your time, thought and considered comments!

Sincerely,

Roxanne H. Cramer

encl: summary of Round 1 importance and priorities; Round 2 questionnaire; SASE
Appendix P

Round 2 Questionnaire

NAME: ________________________________

SECTION 1: SUGGESTED ACTION AT FEDERAL, STATE AND LOCAL LEVELS

In the columns on the right, please circle 1 if the action is crucial to gifted education; circle 2 if the action is important; and circle 3 if you believe the action is not important or should not be taken. If you have a comment, please circle C and write your comment on the sheet provided at the end of the questionnaire.

SECTION 1, ISSUE #1: PROCEDURES FOR IDENTIFYING CHILDREN FOR GIFTED PROGRAMS

IDENTIFICATION - FEDERAL LEVEL

1. The federal level should establish guidelines on:

   - procedures: recommend and define procedures for identification ................................................. 1 2 3 C
   - tests to use for identification ............................................................................................................. 1 2 3 C
   - use of measures beyond standardized achievement tests; incorporate into funding requirements ................................................................................................................................. 1 2 3 C
   - deemphasis of identification and emphasis of selection ................................................................. 1 2 3 C
   - identification which will produce program similar to PL 94-142 (Education for all Handicapped Act) ................................................................................................................................. 1 2 3 C

2. The federal level should provide catalytic support for:

   - model projects that identify and serve multiple talents; specify appropriate tests to properly measure type of talent ................................................................. 1 2 3 C
   - programs only if identification procedures are appropriate to curriculum offered ...................... 1 2 3 C
   - research on identification ......................................................................................................................... 1 2 3 C

3. The federal level should provide assistance to states for:

   - writing rules and regulations ........................................................................................................ 1 2 3 C
   - developing procedures, guidelines and restrictions ............................................................................. 1 2 3 C

4. The federal level should share knowledge and research for better decision making ...................... 1 2 3 C
SECTION 1, ISSUE #1: SUGGESTED ACTION, IDENTIFICATION, continued

IDENTIFICATION - STATE LEVEL

1. The state level should establish guidelines for identification ........................................ 1 2 3 C
2. The state level should recommend approaches and procedures to identification

   to include all parts of definition of gifted .......................................................... 1 2 3 C
3. The state level should establish procedures that:

   - are consistent with federal guidelines ...................................................... 1 2 3 C
   - are in compliance with best practices determined from research .................. 1 2 3 C
4. The state level should provide support of local pilot projects meeting needs of

   multiple talents .......................................................................................... 1 2 3 C
5. The state level should broaden definition beyond academically talented .......... 1 2 3 C
6. The state level should not adjust entry level to fit budgets .......................... 1 2 3 C
7. The state level should adopt inclusive policies that permit all children having +2

   standard deviations on a standardized IQ test to receive services ................. 1 2 3 C
8. The state level should write regulations making K-12 program mandatory .......... 1 2 3 C

IDENTIFICATION - LOCAL LEVEL

1. The local level should establish identification procedures that:

   - are consistent with federal and state guidelines ........................................... 1 2 3 C
   - are specific to local student population ...................................................... 1 2 3 C
   - are appropriate to curriculum offered ....................................................... 1 2 3 C
   - reflect local definition of gifted .............................................................. 1 2 3 C
2. The local level should train school psychologists and counselors in

   identification of g/t students ......................................................................... 1 2 3 C
SECTION 1, ISSUE #2: SELECTION AND TRAINING OF TEACHERS FOR THE GIFTED

TEACHERS - FEDERAL LEVEL:

1. The federal level should establish guidelines for:
   - teacher selection .................................................. 1 2 3 C
   - teacher training .................................................. 1 2 3 C
   - skills and competencies needed by teachers of the gifted ........... 1 2 3 C
   - developing criteria for determining excellence in teacher training .... 1 2 3 C

2. The federal level should provide catalytic support for:
   - investigating alternative teacher training modes (not just universities) .... 1 2 3 C
   - developing effective preservice and inservice training programs ........ 1 2 3 C
   - encouraging brighter and more creative teachers to select the field ....... 1 2 3 C
   - certification programs .............................................. 1 2 3 C
   - fellowships and scholarships for teachers of gifted .................... 1 2 3 C

3. The federal level should conduct policy studies .......................... 1 2 3 C

4. The federal level should promote:
   - gifted/talented certification for teachers ............................ 1 2 3 C
   - local teacher training initiatives .................................... 1 2 3 C
   - graduate level study of gifted/talented ................................ 1 2 3 C

5. No federal involvement in teacher selection and/or training needed at this point .... 1 2 3 C

TEACHERS - STATE LEVEL

1. The state level should establish standards that:
   - mandate certification .............................................. 1 2 3 C
   - determine state standards for teacher training ....................... 1 2 3 C

2. The state level should require:
   - gifted education as graduate program only .......................... 1 2 3 C
   - minimum of 24 semester hours for endorsement in gifted education ...... 1 2 3 C
3. The state level should provide funding or support to:
- determine preservice and inservice needs ........................................... 1 2 3 C
- strengthen training at local level ................................................... 1 2 3 C
- provide programs leading to certification ........................................ 1 2 3 C
- coordinate college and university training programs .......................... 1 2 3 C
- investigate teacher training through alternative modes, not just universities 1 2 3 C
- improve inservice training ............................................................. 1 2 3 C

4. The state level should support partnerships between universities and districts 1 2 3 C

TEACHERS - LOCAL LEVEL

1. The local level should support requirements for qualifications of teachers of gifted/talented by:
- hiring only teachers certified in gifted education .............................. 1 2 3 C
- hiring only teachers having 3 graduate courses in gifted education ....... 1 2 3 C
- hiring only teachers trained in gifted education, with appropriate experience and credentials ........................................... 1 2 3 C
- employing national searches to locate teachers ................................ 1 2 3 C
- complying with state certification regulations ................................... 1 2 3 C

2. The local level should provide financial initiatives to teachers of gifted .... 1 2 3 C

3. The local level should define training sequence ................................ 1 2 3 C

4. The local level should implement business and university partnerships .... 1 2 3 C

5. The local level should develop teacher training by:
- designing comprehensive plan for inservice training for all teachers, whether teaching gifted or regular students ........................................ 1 2 3 C
- training teachers in both content and teaching strategies, emphasizing individual differences ..................................................... 1 2 3 C
SECTION 1, ISSUE #3: SPECIAL POPULATIONS OF GIFTED: UNDERACHIEVERS, MINORITIES, HANDICAPPED, FEMALES, VERY YOUNG GIFTED CHILDREN, HIGHLY GIFTED

SPECIAL POPULATIONS - FEDERAL LEVEL

1. The federal level should establish policies to:
   - ensure that special populations are reached and served ........................................ 1 2 3 C
   - develop advocacy policy for special populations .................................................. 1 2 3 C

2. The federal level should provide catalytic support for:
   - projects only if they identify representative populations of poor, minority, and handicapped ............................................................. 1 2 3 C
   - research on identification of special populations ................................................. 1 2 3 C

3. The federal level should recognize needs of the highly gifted .................................. 1 2 3 C

SPECIAL POPULATIONS - STATE LEVEL

1. The state level should establish guidelines ................................................................. 1 2 3 C

2. The state level should provide funding for:
   - projects only if they identify representative populations of poor, minority and handicapped ............................................................. 1 2 3 C
   - research on special population identification and selection for programs ............... 1 2 3 C
   - grants and workshops to develop programs for special populations ..................... 1 2 3 C

3. The state level should share knowledge regarding successful programs in minority enrollment .... 1 2 3 C

4. The state level should set priorities for:
   - meeting needs of specific populations ................................................................. 1 2 3 C
   - meeting program goals ......................................................................................... 1 2 3 C

5. The state level should emphasize selection, de-emphasize identification .................... 1 2 3 C

6. The state level should encourage development of special programs and identification methods for highly gifted .................................................. 1 2 3 C
SPECIAL POPULATIONS - LOCAL LEVEL

1. The local level should implement:
   - federal mandate ...........................................•................ 1 2 3 C
   - programs for special populations according to state/federal priorities . .................................................. 1 2 3 C
   - research findings .......................................................... 1 2 3 C

2. The local level should renorm tests to obtain representative population . .................................................. 1 2 3 C

3. The local level should experiment with criteria and curriculum for minorities . .................................................. 1 2 3 C

4. The local level should diagnose all underachieving students .................................................. 1 2 3 C

5. The local level should provide for tutoring of underachieving students .................................................. 1 2 3 C

7. The local level should allow early entrance and other accommodations for highly gifted .................................................. 1 2 3 C

SECTION 1, ISSUE #4: GOALS OF GIFTED PROGRAMS

GOALS - FEDERAL LEVEL

1. The federal level should establish guidelines regarding:
   - development of creativity and intrinsic motivation as goals, rather than grades and test scores . .................................................. 1 2 3 C
   - goals of gifted programs .................................................. 1 2 3 C
   - goals of gifted programs with reference to national priorities .................................................. 1 2 3 C

2. The federal level should provide catalytic support for:
   - research on goals .................................................. 1 2 3 C
   - needs assessment .................................................. 1 2 3 C

3. The federal level should evaluate existing research for practical advice on goals .................................................. 1 2 3 C

4. The federal level should expand goals of gifted programs to include: (a) appropriate education
   for gifted students, and (b) leadership role in new ideas and learning models for general
   education .................................................. 1 2 3 C

GOALS - STATE LEVEL

1. The state level should ensure that goals of programs are consistent with those at federal level .................................................. 1 2 3 C

2. The state level should provide rules and regulations .................................................. 1 2 3 C
3. The state level should assist local districts in defining goals .............................................. 1 2 3 C
4. The state level should write general goals reflecting state priorities .............................. 1 2 3 C
5. The state level should expand goals of gifted programs to include: (a) appropriate education
   for gifted students, and (b) leadership role in new ideas and learning models for general
   education .................................................................................................................. 1 2 3 C
6. The state level should conduct a needs assessment .................................................. 1 2 3 C
7. The state level should structure goals for gifted programs in light of goals for other
   segments of students .................................................................................................. 1 2 3 C

GOALS - LOCAL LEVEL
1. The local level should incorporate federal and state goals into local programs ................ 1 2 3 C
2. The local level should develop goals that are specific to particular programs and populations .... 1 2 3 C
3. The local level should make explicit the goals of creativity, self-initiative and
   risk-taking rather than conformity to teacher or testmaker expectations ...................... 1 2 3 C
4. The local level should expand goals of gifted programs to include: (a) appropriate education
   for gifted students, and (b) leadership role in new ideas and learning models for general
   education .................................................................................................................. 1 2 3 C
5. The local level should "sell" each program to parents and teachers via organizations and
   pressure groups ...................................................................................................... 1 2 3 C
6. The local level should state goals clearly and specifically .......................................... 1 2 3 C
7. The local level should conduct a needs assessment .................................................. 1 2 3 C

SECTION 1, ISSUE #5: CURRICULUM FOR THE GIFTED
CURRICULUM - FEDERAL LEVEL
1. The federal level should provide guidelines from research base of curriculum models
   that reflect appropriate content and structure for gifted learners .................................. 1 2 3 C
2. The federal level should provide support for:
   - development of model or exemplary curriculum projects ......................................... 1 2 3 C
- development of rigorous content-based curricula
- innovation and use of new information (e.g., brain research on learning) .......................... 1 2 3 C
- funding to be used for required courses, not pull-out enrichment ............................... 1 2 3 C

3. The federal level should disseminate information on effective curriculum projects .................. 1 2 3 C

CURRICULUM - STATE LEVEL
1. The state level should provide support for:
   - model curriculum development projects ................................................................. 1 2 3 C
   - legislation to ensure that effective curricula are implemented ............................... 1 2 3 C
   - rigorous content-based curriculum ........................................................................... 1 2 3 C

2. The state level should adopt federal guidelines .............................................................. 1 2 3 C

3. The state level should provide assistance to local school districts in defining
   "differentiated curriculum" ......................................................................................... 1 2 3 C

4. The state level should require funds to be used for required courses, not "pull-out" enrichment .... 1 2 3 C

CURRICULUM - LOCAL LEVEL
1. The local level should require thorough evaluation of curriculum ................................. 1 2 3 C

2. The local level should provide inservice for teachers on appropriate curriculum for gifted .... 1 2 3 C

3. The local level should allow teachers released time for curriculum development ............. 1 2 3 C

4. The local level should ensure that:
   - curriculum is sufficiently differentiated ................................................................. 1 2 3 C
   - curriculum is carefully articulated with regular program .......................................... 1 2 3 C
   - token gifted programs are avoided ............................................................................ 1 2 3 C
   - curriculum is relevant to program goals and identification criteria .......................... 1 2 3 C
   - curriculum is modified to meet individual student needs ......................................... 1 2 3 C
   - curriculum is not limited to low-level field trips and enrichment activities .............. 1 2 3 C

5. The local level should implement research findings ...................................................... 1 2 3 C
SECTION 1, ISSUE #6: DEFINITION OF THE TERM "GIFTED"

DEFINITION - FEDERAL LEVEL

1. The federal level should conduct major conference to try to reach consensus on broad definition ................................................................. 1 2 3 C

2. The federal level should reestablish national center to disseminate information .................................................. 1 2 3 C

3. The federal level should establish basic guidelines, e.g., define basic types of gifted, including multiple types of giftedness: visual/performing arts, leadership, specific academic aptitude, kinesthetic abilities ................................................................. 1 2 3 C

4. The federal level should develop clear statement as to what constitutes giftedness in each of the areas in #3 above .................................................. 1 2 3 C

5. The federal level should support research into definition ........................................ 1 2 3 C

6. The federal level should establish a definition level, with allowance for modifications at state and local levels within prescribed limits ........................................ 1 2 3 C

7. The federal level should put some clout into the already established definition so that it is implemented .................................................. 1 2 3 C

8. The federal level should emphasize potential rather than achievement when discussing children: creativity, self-initiation, intrinsic motivation ........................................ 1 2 3 C

DEFINITION - STATE LEVEL

1. The state level should provide guidelines for local school districts that direct the inclusion of a variety of giftedness ........................................ 1 2 3 C

2. The state level should provide a framework definition ........................................ 1 2 3 C

3. The state level should clarify types of programs that will be funded, and specify measurable criteria for each ........................................ 1 2 3 C

4. The state level should implement federal definition ........................................ 1 2 3 C

5. The state level should gather data at the local level on evolving definitions of giftedness based on practice ........................................ 1 2 3 C
6. The state level should monitor districts for compliance with federal definition
   (compliance would be required for funding) ........................................ 1 2 3 C

DEFINITION - LOCAL LEVEL
1. The local level should refine definition based on practice in the field ......... 1 2 3 C
2. The local level should develop definition based on grass roots origin (i.e., local colleges and local schools) ................................................... 1 2 3 C
3. The local level should accept and implement federal definition ................ 1 2 3 C
4. The local level should provide guidelines for broader, more inclusive definition ........ 1 2 3 C
5. The local level, within state framework, should establish own definition of giftedness based on student population ........................................... 1 2 3 C
SECTION 2 - DEFINITION OF "GIFTED"

Please put a check in the column that indicates the extent of your agreement or disagreement with each statement. Note that there is room for you to add further statements to the definition. Please write any comments in the space at the bottom of each page.

**GIFTEDNESS IS:**

<table>
<thead>
<tr>
<th></th>
<th>STRONGLY AGREE</th>
<th>STRONGLY DISAGREE</th>
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<tbody>
<tr>
<td>a</td>
<td>a biologically rooted concept</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>a label for high level of intelligence resulting from advanced and accelerated integration of functions within the brain</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>the potential for exceptional development of specific abilities</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>the demonstration of performance capability at the upper end of a talent continuum</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>not limited by age, gender, race, socioeconomic status, or ethnicity</td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>a psychological trait descriptor of positive exceptionality</td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>a score above the 8th stanine on at least 6 of the Structure Of Intellect (SOI) Learning Abilities</td>
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<tr>
<td>h</td>
<td>behavior that reflects an interaction among three basic clusters of traits: above average general and/or specific abilities, high levels of task commitment, and high levels of creativity</td>
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<tr>
<td>i</td>
<td>(other)</td>
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SECTION 2 - DEFINITION OF "GIFTED," continued

A GIFTED CHILD IS ONE WHO:

a - possesses or is capable of developing the set of three traits
   (above average general and/or specific abilities, high levels
   of task commitment, and high levels of creativity) and applying
   them to any potentially valuable area of human performance

b - demonstrates potential capability in the following areas, singly
   or in combination:
   (1) general intellectual ability
   (2) specific academic aptitude
   (3) leadership ability
   (4) psychomotor ability
   (5) visual and performing arts
   (6) creative productive thinking

c - has been identified by professionally qualified persons

d - is developmentally advanced in one or more areas, and exhibits
   the characteristics of giftedness

e - is developmentally advanced and is therefore in need of a
   differentiated school program in order to develop at
   his or her own accelerated pace
f - has potential or demonstrated outstanding ability in a specific talent or in multiple
areas, and who requires supportive educational services in order to function at the
level of his or her potential

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**A GIFTED ADULT IS ONE WHO:**

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<th>STRONGLY DISAGREE</th>
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<tr>
<td>a</td>
<td>has the innate talents and intrinsic motivation to achieve outstanding performance in one or more areas of human endeavor</td>
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<tr>
<td>b</td>
<td>makes independent and creative contributions to a field that cannot be ignored</td>
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<tr>
<td>c</td>
<td>shows an unusual skill, ability, or talent in one or more areas of intellect, leadership, or in the visual or performing arts</td>
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<tr>
<td>d</td>
<td>demonstrates exceptional performance in an area of value</td>
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<td>e</td>
<td>(other)</td>
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The issues listed below were the first six priority issues in Round 1. Of these six, please indicate your top three priorities only: 1 = first; 2 = second; and 3 = third.

<table>
<thead>
<tr>
<th>ISSUES</th>
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<tbody>
<tr>
<td>1. Procedures for identifying children for gifted programs</td>
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<tr>
<td>2. Selection and training of teachers of the gifted</td>
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<tr>
<td>3. Special populations of gifted: handicapped, women, minorities,</td>
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<td>underachievers, pre-school, highly gifted</td>
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<td>4. Goals of gifted programs</td>
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<td>5. Curriculum for the gifted</td>
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<td>6. Definition of the term &quot;gifted&quot;</td>
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COMMENTS ON SECTION 1, ISSUES 1 - 6
Appendix Q

Results of Delphi Survey - Round 2, Section 1: Suggested Action at the Federal, State and Local Levels (N = 27)

<table>
<thead>
<tr>
<th>Issue 1: Procedures for Identifying Children for Gifted Programs</th>
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IDENTIFICATION, FEDERAL LEVEL

1. The federal level should establish guidelines on:

   * - procedures: recommend and define procedures for identification .......................................................... 8 31 9 35 9 36 26
   - tests to use for identification ..................................................... 4 11 11 42 26
   - use of measures beyond standardized achievement tests;
     incorporate into funding requirements ................................................. 9 12 6
   - deemphasis of identification and emphasis of selection .................. 4 13 9 26
   - identification which will produce program similar to PL 94-142 (Education for all Handicapped Act) ................. 3 7 15 60 25

2. The federal level should provide catalytic support for:

   - model projects that identify and serve multiple talents;
     specify appropriate tests to properly measure
     type of talent ........................................................................ 10 14 2 26
   - programs only if identification procedures are appropriate to
     curriculum offered ........................................................................ 11 41 9 7
   - research on identification .......................................................... 15 56 10 2

* indicates ratings fairly evenly divided between the three choices, within 10 percentage points

N*: N = 27 unless noted in this column

1 CRU = Action Crucial to Gifted Education; IMP = Action Important to Gifted Education; NOT IMP = Action Not Important to Gifted Education or Should Not Be Taken
Identification, Federal Level, continued

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<th>CRU</th>
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3. The federal level should provide assistance to states for:

- writing rules and regulations ........................................... 0 14 13 48
- developing procedures, guidelines and restrictions .................. 1 17 9

4. The federal level should share knowledge and research for better decision making .............................................................. 12 46 13 1 26

IDENTIFICATION - STATE LEVEL

1. The state level should establish guidelines for identification ........... 17 63 9 1

2. The state level should recommend approaches and procedures to identification to include all parts of definition of
gifted ................................................................................. 17 63 8 2

3. The state level should establish procedures that:
* - are consistent with federal guidelines ........................................ 8 30 11 40 8 30
- are in compliance with best practices determined from research .......................................................... 20 74 6 1

4. The state level should provide support of local pilot projects meeting needs of multiple talents ............................................. 14 54 9 3 26

5. The state level should broaden definition beyond academically talented ........................................................................ 16 60 9 2

6. The state level should not adjust entry level to fit budgets .................. 12 50 8 4 24

7. The state level should adopt inclusive policies that permit all children having +2 standard deviations on a standardized IQ test to receive services .................................................. 11 41 9 7

8. The state level should write regulations making K-12 program mandatory .................................................. 16 62 6 4 26

(table continues)
IDENTIFICATION, LOCAL LEVEL

1. The local level should establish identification procedures that:
   - are consistent with federal and state guidelines .......................... 11 42 12 3 26
   - are specific to local student population ........................................ 13 50 13 0 26
   - are appropriate to curriculum offered ........................................... 15 58 10 1 26
   - reflect local definition of gifted ................................................. 7 10 10

2. The local level should train school psychologists and counselors
   in identification of g/t students ...................................................... 15 55 8 4

ISSUE #2: SELECTION AND TRAINING OF TEACHERS FOR THE GIFTED

Teachers - Federal Level:

1. The federal level should establish guidelines for:
   - teacher selection ................................................................. 6 10 11 41
   * teacher training ................................................................. 8 30 10 37 9 33
   - skills and competencies needed by teachers of the gifted .................. 10 11 6
   - developing criteria for determining excellence in teacher training ....... 9 12 6

2. The federal level should provide catalytic support for:
   - investigating alternative teacher training modes (not just universities) .... 4 14 9
   - developing effective preservice and inservice training programs .......... 4 17 6
   - encouraging brighter and more creative teachers to select field .......... 10 12 5
   - certification programs ............................................................. 3 11 13 48
   - fellowships and scholarships for teachers of gifted ........................ 12 44 9 6

3. The federal level should conduct policy studies .................................. 10 12 5

(table continues)
Selection and Training of Teachers, Federal Level, continued

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4. The federal level should promote:

- gifted/talented certification for teachers ................................ 9 7 11 41
- local teacher training initiatives ......................................... 7 14 6
- graduate level study of gifted/talented .................................. 13 48 10 4

5. No federal involvement in teacher selection and/or training

needed at this point .............................................. 4 5 14 61 23

TEACHERS - STATE LEVEL

1. The state level should establish standards that:

- mandate certification .................................................. 11 41 11 5
- determine state standards for teacher training ......................... 15 56 12 0
- mandate gifted education as graduate program only .................... 5 9 13 48
- require min. of 24 semester hours for gifted education
  endorsement .................................................. 6 11 10

2. The state level should provide funding or support to:

- determine preservice and inservice needs ................................ 8 13 6
- strengthen training at local level ...................................... 8 15 4
- provide programs leading to certification ................................ 12 45 9 6
- coordinate college and university training programs ................... 8 5 14 52
- investigate teacher training through alternative
  modes, not just universities ........................................... 8 30 8 30 11 40
- improve inservice training ............................................. 10 12 5

3. The state level should support partnerships between universities

and districts .......................................................... 16 64 9 0 25

(table continues)
Selection and Training of Teachers, continued

CRU  IMP  NOT IMP  N

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</table>

TEACHERS - LOCAL LEVEL

1. The local level should support requirements for qualifications of teachers of gifted/talented by:

- hiring only teachers certified in gifted education .................. 8 32 9 36 8 32 25
- hiring only teachers having 3 graduate courses in gifted education ............. 3 9 13 52 25
- hiring only teachers trained in gifted education, with appropriate experience and credentials .............................. 11 42 13 2 26
- employing national searches to locate teachers .................................... 6 7 13 50 26
- complying with state certification regulations ......................................... 13 48 8 4 26

2. The local level should develop teacher training by:

- designing comprehensive plan for inservice training for all teachers, whether teaching gifted or regular students .................. 17 62 9 1
- training teachers in both content and teaching strategies, emphasizing individual differences ......................................... 19 70 8 0

3. The local level should provide financial incentives to teachers of gifted .......................................................... 11 41 9 7

4. The local level should define training sequence ........................................ 2 15 10

5. The local level should implement business and university partnerships ............................... 8 14 4 26

(table continues)
ISSUE #3: SPECIAL POPULATIONS OF GIFTED: UNDERACHIEVERS, MINORITIES, HANDICAPPED, FEMALES, VERY YOUNG GIFTED CHILDREN, HIGHLY GIFTED

SPECIAL POPULATIONS - FEDERAL LEVEL

1. The federal level should establish policies to:
   - ensure that special populations are reached and served .......................... 15  56  10  2
   - develop advocacy policy for special populations ................................. 11  42  11  4  26

2. The federal level should provide catalytic support for:
   - projects only if they identify representative populations of
     poor, minority, and handicapped .................................................. 3  8  15  58  26
   - research on identification of special populations ............................ 9  16  2

3. The federal level should recognize needs of the highly gifted ................ 14  52  12  1

SPECIAL POPULATIONS - STATE LEVEL

1. The state level should establish guidelines ........................................ 11  44  14  0  25

2. The state level should provide funding for:
   - projects only if they identify representative populations of
     poor, minority, and handicapped .................................................. 6  6  13  52  25
   - research on special population identification and selection for programs ........................................ 9  13  5
   - grants and workshops to develop programs for special populations ........................................ 13  50  11  2  26

3. The state level should share knowledge regarding successful programs
   in minority enrollment ................................................................. 14  54  10  2  26

4. The state level should set priorities for:
   - meeting needs of specific populations ......................................... 11  42  13  2  26
   - meeting program goals ............................................................. 7  19  1

(table continues)
Special Populations, State Level, continued

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5. The state level should emphasize selection, de-emphasize identification .......................... 5 11 8 24

6. The state level should encourage development of special programs and identification methods for highly gifted .......................................................... 14 52 11 2

SPECIAL POPULATIONS - LOCAL LEVEL

1. The local level should implement:
   - federal mandate ........................................................................................................ 8 10 6 24
   - programs for special populations according to state/federal priorities .................... 9 13 3 25
   - research findings ...................................................................................................... 13 50 10 3 26

2. The local level should renorm tests to obtain representative population ..................... 5 6 15 58 26

3. The local level should experiment with criteria and curriculum for minorities .................. 10 12 4 26

4. The local level should diagnose all underachieving students ........................................ 11 42 13 2 26

5. The local level should provide for tutoring of underachieving students .......................... 6 13 7 26

6. The local level should allow early entrance and other accommodations for highly gifted ............................................................................................................. 22 81 4 1

(table continues)
ISSUE #4: GOALS OF GIFTED PROGRAMS

GOALS - FEDERAL LEVEL

1. The federal level should establish guidelines regarding:
   - development of creativity and intrinsic motivation as goals, rather than grades and test scores ................................................. 2 6 19 70
   - goals of gifted programs ........................................... 3 15 8 26
   - goals of gifted programs with reference to national priorities ................... 5 15 6 26

2. The federal level should provide catalytic support for:
   - research on goals ................................................ 13 48 6 8
   - needs assessment ................................................ 9 14 4

3. The federal level should evaluate existing research for practical advice on goals ................................................... 15 56 9 3

4. The federal level should expand goals of gifted programs to include:
   (a) appropriate education for gifted students, and (b) leadership role in new ideas and learning models for general education ....................... 5 17 5

GOALS - STATE LEVEL

1. The state level should ensure that goals of programs are consistent with those at federal level .................................................. 7 11 9

2. The state level should provide rules and regulations ........................................ 7 19 1

3. The state level should assist local districts in defining goals ........................................ 12 44 15 0

4. The state level should write general goals reflecting state priorities ....................... 7 16 4

5. The state level should expand goals of gifted programs to include:
   (a) appropriate education for gifted students, and (b) leadership role in new ideas and learning models for general education ....................... 7 18 2

(table continues)
Goals, State Level, continued

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6. The state level should conduct a needs assessment ........................................ 5 17 5
7. The state level should structure goals for gifted programs in light of goals for other segments of students .................................................. 2 15 9 26

GOALS, LOCAL LEVEL

1. The local level should incorporate federal and state goals into local programs ....... 9 11 5 25
2. The local level should develop goals that are specific to particular programs and populations ................................................................. 15 55 12 0
3. The local level should make explicit the goals of creativity, self-initiative and risk-taking rather than conformity to teacher or testmaker expectations ................................................................. 12 44 11 4
4. The local level should expand goals of gifted programs to include: (a) appropriate education for gifted students, and (b) leadership role in new ideas and learning models for general education ........................................ 7 14 6
5. The local level should "sell" each program to parents and teachers via organizations and pressure groups ................................................................. 5 12 10
6. The local level should state goals clearly and specifically ................................ 19 70 8 0
7. The local level should conduct a needs assessment ................................................. 12 44 13 2

(table continues)
## ISSUE #5: CURRICULUM FOR THE GIFTED

### CURRICULUM - FEDERAL LEVEL

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1. The federal level should provide guidelines from research base of curriculum models that reflect appropriate content and structure for gifted learners. .................................................. 8 11 5 24

2. The federal level should provide support for:
   - [development of model or exemplary curriculum projects](#) .................... 14 54 10 2 26
   - [development of rigorous content-based curricula](#) .......................... 5 10 9 24
   - [innovation and use of new information (e.g., brain research on learning)](#) ................................ 7 16 3 26
   - [funding to be used for required courses, not pull-out enrichment](#) ........ 6 4 16 62 26

3. The federal level should disseminate information on effective curriculum projects .......................... 11 42 13 2 26

### CURRICULUM - STATE LEVEL

1. The state level should provide support for:
   - [model curriculum development projects](#) .......................... 12 46 13 1 26
   - [legislation to ensure that effective curricula are implemented](#) .......... 11 42 11 4 26
   - [rigorous content-based curriculum](#) ........................................ 8 12 5 25

2. The state level should adopt federal guidelines .................................................. 4 9 13 50 26

3. The state level should provide assistance to local school districts in defining "differentiated curriculum" ........................................ 14 54 11 1 26

4. The state level should require funds to be used for required courses, not "pull-out" enrichment .......................... 8 3 15 58 26

(table continues)
Curriculum, continued

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<tbody>
<tr>
<td>1. The local level should require thorough evaluation of curriculum</td>
<td>14</td>
<td>54</td>
<td>1 11</td>
<td>26</td>
</tr>
<tr>
<td>2. The local level should provide inservice for teachers on appropriate curriculum for gifted</td>
<td>15</td>
<td>58</td>
<td>11 0</td>
<td>26</td>
</tr>
<tr>
<td>3. The local level should allow teachers released time for curriculum development</td>
<td>11</td>
<td>42</td>
<td>8 7</td>
<td>26</td>
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<td><strong>4. The local level should ensure that:</strong></td>
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<tr>
<td>- curriculum is sufficiently differentiated</td>
<td>19.5</td>
<td>75</td>
<td>5.5 1</td>
<td>26</td>
</tr>
<tr>
<td>- curriculum is carefully articulated with regular program</td>
<td>15.5</td>
<td>60</td>
<td>6.5 4</td>
<td>26</td>
</tr>
<tr>
<td>- token gifted programs are avoided</td>
<td>22.5</td>
<td>87</td>
<td>2.5 1</td>
<td>26</td>
</tr>
<tr>
<td>- curriculum relevant to program goals and identification criteria</td>
<td>22.5</td>
<td>87</td>
<td>3.5 0</td>
<td>26</td>
</tr>
<tr>
<td>- curriculum is modified to meet individual student needs</td>
<td>20.5</td>
<td>79</td>
<td>5.5 0</td>
<td>26</td>
</tr>
<tr>
<td>- curriculum is not limited to low-level field trips and enrichment activities</td>
<td>22.5</td>
<td>90</td>
<td>2.5 0</td>
<td>25</td>
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<tr>
<td><strong>5. The local level should implement research findings</strong></td>
<td>16.5</td>
<td>63</td>
<td>8.5 1</td>
<td>26</td>
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** One panelist marked both Crucial and Important for all items in #4 and #5; one half vote was assigned to each.

(Table continues)
ISSUE #6: DEFINITION OF THE TERM "GIFTED"

DEFINITION - FEDERAL LEVEL

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1. The federal level should conduct major conference to try to reach consensus on broad definition
   6   7   13   50   26

2. The federal level should reestablish national center to disseminate information
   10  40  10   6   26

3. The federal level should establish basic guidelines, e.g.,
   define basic types of gifted, including multiple types of
   giftedness: visual/performing arts, leadership, specific academic
   aptitude, kinesthetic abilities
   7   12  7   26

4. The federal level should develop clear statement as to what constitutes giftedness in each of the areas in #3 above
   3   16  7   26

5. The federal level should support research into definition
   9   11  6   26

6. The federal level should establish a definition level, with
   allowance for modifications at state and local levels within
   prescribed limits
   7   11  7   25

7. The federal level should put some clout into the already established
   definition so that it is implemented
   3   7.5 13.5 56   24

* 8. The federal level should emphasize potential rather than achievement
   when discussing children: creativity, self-initiation, intrinsic
   motivation
   8  31  8  31  10  38  26

(table continues)
DEFINITION - STATE LEVEL

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1. The state level should provide guidelines for local school districts that direct the inclusion of a variety of giftedness. 15 56 12 0
2. The state level should provide a framework definition. 13 48 12 2
3. The state level should clarify types of programs that will be funded, and specify measurable criteria for each. 12 44 13 2
4. The state level should implement federal definition. 6 11 10
5. The state level should gather data at the local level on evolving definitions of giftedness based on practice. 5 15 7
6. The state level should monitor districts for compliance with federal definition (compliance would be required for funding). 6 10 11 41

DEFINITION - LOCAL LEVEL

1. The local level should refine definition based on practice in field. 6 12 9
2. The local level should develop definition based on grass roots origin (i.e., local colleges and local schools). 4 5 17 65 26
3. The local level should accept and implement federal definition. 4 11.5 11.5 43
4. The local level should provide guidelines for broader, more inclusive definition. 7 14 6
5. The local level, within state framework, should establish own definition of giftedness based on student population. 8 13 6
Appendix R
Cover letter for Round 3
December 27, 1989

Dear [Panelist],

I really appreciate your taking time from your busy schedule to complete Round 2 questionnaire for the Delphi Study of Gifted Education. Thank you so much!

Enclosed are: (1) summary of priority ratings for six issues in gifted education (attached); (2) Round 3 questionnaire; (3) supplemental sheet; and (4) SASE.

1. For the priority summary, scores were weighted: 1st priority ratings were weighted 3, 2nd weighted 2, and 3rd weighted 1. Weighted scores were summed; the highest weighted total was determined to be the highest priority issue. That an issue could gain a high score with few 1st but many 2nd and 3rd priority ratings is of some concern. This occurred in the case of Issue #2, Teacher Selection and Training, which had only three 1st priority ratings but eight 2nd and 10 3rd. Any thoughts you might have on this matter would be appreciated.

2. Round 3 was developed from panelists' responses to Round 2. In Section 1, suggested actions rated as "Crucial to Gifted Education" by 40% or more of the panelists are listed as actions that SHOULD be taken at the federal, state and local levels. NOTE: To reduce confusion, actions rated as "Not Important to Gifted Education or Should Not Be Taken" by 40% or more of the panelists are also listed as actions that SHOULD be taken. Over
25% of the items in the questionnaire are in this category. In addition, a few actions for which ratings were evenly divided between "Crucial" and "Not Important or Should not be Taken" (showing a real disagreement) are included. (Although 27 panelists participated in Round 2, not every panelist responded to every action; thus in some cases, \( N < 27 \).) Please circle AGREE or DISAGREE (not both, please!) for each action.

In Section 2, "Definition of the Term 'Gifted'," responses were also weighted. "Strongly Agree" was weighted 4, "Agree" weighted 3, "Disagree" weighted 2, and "Strongly Disagree" weighted 1. The weighted scores were summed, then divided by the number of panelists responding (\( N = 27 \)) to give a mean score. All definitions with a mean score \( \geq 3.0 \) are included. Please circle AGREE or DISAGREE (not both) for each definition.

3. On the supplemental sheet your advice is sought regarding the most effective use of "seed money" ($5000 or less) in view of the priority ratings.

**PLEASE RETURN THE QUESTIONNAIRE AND SUPPLEMENTAL SHEET TO ME BY OR BEFORE**

**JANUARY 19, 1990.**

Sincerely,

Roxanne H. Cramer
Appendix S

Round 3 Questionnaire

NAME: ________________________________________________

ROUND 3, SECTION 1: Please read each statement and circle AGREE or DISAGREE (but not both).

ISSUE #1: CURRICULUM FOR THE GIFTED

FEDERAL LEVEL

1. Catalytic Support:
   - The federal level SHOULD provide catalytic support for the development
     of model or exemplary curriculum projects for gifted students ............ AGREE
   - The federal level SHOULD provide catalytic support for the requirement that
     funding be used for required courses rather than pull-out enrichment ...... AGREE

2. The federal level SHOULD disseminate information on effective curriculum
   projects .................................................. AGREE

STATE LEVEL

1. Support:
   - The state level SHOULD provide support for model curriculum projects .... AGREE
   - The state level SHOULD provide support for legislation to ensure
     that effective curricula are implemented ............................... AGREE

2. The state level SHOULD adopt federal guidelines regarding curriculum
   for the gifted .................................................. AGREE

3. The state level SHOULD provide assistance to local school districts
   in defining "differentiated curriculum" ................................. AGREE

4. The state level SHOULD require that funds be used for
   required courses rather than "pull-out" enrichment .................. AGREE
#1: CURRICULUM FOR GIFTED, continued

LOCAL LEVEL

1. The local level SHOULD require thorough evaluation of curriculum for the gifted ................................................ AGREE DISAGREE

2. The local level SHOULD provide inservice for teachers on appropriate curriculum for gifted ........................................... AGREE DISAGREE

3. The local level SHOULD allow G/T teachers released time for curriculum development ................................................ AGREE DISAGREE

4. The local level SHOULD ensure that:
   - curriculum is sufficiently differentiated ................................................ AGREE DISAGREE
   - curriculum is carefully articulated with regular program ........................ AGREE DISAGREE
   - token gifted programs are avoided ................................................ AGREE DISAGREE
   - curriculum is relevant to program goals and identification criteria ........ AGREE DISAGREE
   - curriculum is modified to meet individual student needs .................... AGREE DISAGREE
   - curriculum is not limited to low-level field trips and enrichment activities ................................................ AGREE DISAGREE

5. The local level SHOULD implement research findings ................................................ AGREE DISAGREE

ISSUE #2: SELECTION AND TRAINING OF TEACHERS FOR THE GIFTED

FEDERAL LEVEL

1. Guidelines:
   The federal level SHOULD establish guidelines on selection of teachers for the gifted ................................................ AGREE DISAGREE
   The federal level SHOULD establish guidelines on training of teachers for the gifted ................................................ AGREE DISAGREE
ISSUE #2: TEACHERS, FEDERAL LEVEL, CONTINUED

2. Catalytic support:
   - The federal level SHOULD provide catalytic support for certification
     programs for teachers of the gifted ........................................... AGREE
     DISAGREE
   - The federal level SHOULD provide catalytic support for fellowships and
     scholarships for teachers of the gifted ........................................... AGREE
     DISAGREE

3. The federal level SHOULD promote graduate level study of gifted/talented ........ AGREE

4. The federal level SHOULD be involved in teacher selection and training ........ AGREE

STATE LEVEL

1. Standards:
   - The state level SHOULD establish state standards that mandate
     certification ........................................... AGREE
     DISAGREE
   - The state level SHOULD establish state standards for teacher training ........ AGREE
     DISAGREE

2. The state level SHOULD require gifted education as graduate
   program only ........................................... AGREE
     DISAGREE

3. Support:
   - The state level SHOULD provide funding or support for teacher education
     programs leading to certification in gifted/talented education ........ AGREE
     DISAGREE
   - The state level SHOULD coordinate college and university training programs AGREE
     DISAGREE
   - The state level SHOULD investigate teacher training through alternative
     modes, not just universities ........................................... AGREE
     DISAGREE
   - The state level SHOULD support partnerships between universities
     and local school districts ........................................... AGREE
     DISAGREE
### ISSUE #2: TEACHER SELECTION AND TRAINING, continued

#### LOCAL LEVEL

1. Qualifications for teachers of the gifted:
   - The local level SHOULD hire only teachers certified in gifted education
     - AGREE
   - The local level SHOULD hire only teachers having at least 3 graduate courses in gifted education
     - AGREE
   - The local level SHOULD hire only teachers trained in gifted education, with appropriate experience and credentials
     - AGREE
   - The local level SHOULD employ national searches to locate teachers
     - AGREE
   - The local level SHOULD comply with state certification regulations
     - AGREE

2. Teacher training:
   - The local level SHOULD design comprehensive plan for inservice training for all teachers, whether teaching gifted or regular students
     - AGREE
   - The local level SHOULD train teachers in both content and teaching strategies, emphasizing individual differences
     - AGREE

3. The local level SHOULD provide financial incentives to teachers of gifted
   - AGREE

### ISSUE #3: PROCEDURES FOR IDENTIFYING CHILDREN FOR GIFTED PROGRAMS

#### FEDERAL LEVEL

1. Guidelines:
   - The federal level SHOULD establish guidelines on tests used for identifying children for gifted programs
     - AGREE
   - The federal level SHOULD establish guidelines on identification which will produce program similar to PL 94-142 (Education for all Handicapped Act)
     - AGREE
ISSUE #3: IDENTIFICATION PROCEDURES, FEDERAL LEVEL, continued

2. Catalytic support:

- The federal level SHOULD provide catalytic support for programs
  only if identification procedures are appropriate to curriculum ........ AGREE

- The federal level SHOULD provide catalytic support for research
  on identification of children for gifted programs ......................... AGREE

3. The federal level SHOULD provide assistance to states in writing
  rules and regulations regarding identification of gifted students ........ AGREE

4. The federal level SHOULD share knowledge and research on identification
  for better decision making ............................................. AGREE

STATE LEVEL

1. The state level SHOULD establish guidelines for identification ........ AGREE

2. The state level SHOULD recommend approaches and procedures for
  identification that include all parts of definition of gifted ............... AGREE

3. Procedures:

- The state level SHOULD establish procedures that are consistent with
  federal guidelines ................................. AGREE

- The state level SHOULD establish procedures that are in compliance with
  best practices determined from research ............................ AGREE

4. The state level SHOULD provide support of local pilot projects meeting needs
  of multiple talents ............................. AGREE

5. The state level SHOULD broaden definition beyond academically talented .... AGREE

6. The state level SHOULD adjust entry level criteria to fit budgets ........ AGREE

7. The state level SHOULD adopt inclusive policies that permit all children
  having +2 standard deviations on a standardized IQ test to receive services . AGREE

8. The state level SHOULD write regulations making K-12 program mandatory AGREE
ISSUE #3: IDENTIFICATION PROCEDURES, continued

LOCAL LEVEL

1. Procedures:

   - The local level SHOULD establish identification procedures that are consistent with federal and state guidelines ............... AGREE DISAGREE

   - The local level SHOULD establish identification procedures that are specific to local student population .................. AGREE DISAGREE

   - The local level SHOULD establish identification procedures that are appropriate to curriculum offered ....................... AGREE DISAGREE

2. The local level SHOULD train school psychologists and counselors in identification of g/t students .......................... AGREE DISAGREE

ISSUE #4: SPECIAL POPULATIONS OF GIFTED: UNDERACHIEVERS, HIGHLY GIFTED, MINORITIES, HANDICAPPED, FEMALES, VERY YOUNG GIFTED CHILDREN

FEDERAL LEVEL

1. Policies:

   - The federal level SHOULD establish policies to ensure that special populations of gifted students are reached and served ......... AGREE DISAGREE

   - The federal level SHOULD establish advocacy policies for special populations of gifted students .......................... AGREE DISAGREE

2. The federal level SHOULD limit catalytic support only to programs that identify representative populations of poor, minority, and handicapped gifted students .............................................. AGREE DISAGREE

3. The federal level SHOULD recognize the needs of the highly gifted .................. AGREE DISAGREE
ISSUE #4: SPECIAL POPULATIONS, continued

STATE LEVEL

1. The state level SHOULD establish guidelines regarding special populations of gifted students ............................................. AGREE

2. Funding:

   - The state level SHOULD limit funding only to programs that identify representative populations of poor, minority, and handicapped gifted students ........................................... AGREE

   - The state SHOULD provide funding in the form of grants and workshops to develop programs for special populations ..................... AGREE

3. The state level SHOULD share knowledge regarding successful programs in minority enrollment ............................................ AGREE

4. The state level SHOULD set priorities for meeting needs of specific populations ................................................. AGREE

5. The state level SHOULD encourage development of special programs and identification methods for the highly gifted .......................... AGREE

LOCAL LEVEL

1. The local level SHOULD implement research findings regarding special populations of gifted ............................................. AGREE

2. The local level SHOULD renorm tests to obtain representative population ............................................. AGREE

3. The local level SHOULD diagnose all underachieving students ............................................. AGREE

4. The local level SHOULD allow early entrance and other accommodations for highly gifted students ............................................. AGREE
ISSUE #5: GOALS OF GIFTED PROGRAMS

FEDERAL LEVEL
1. The federal level SHOULD establish guidelines regarding development of creativity and intrinsic motivation as goals, rather than grades and test scores .................................................. AGREE

2. The federal level SHOULD provide catalytic support for research goals ........ AGREE

3. The federal level SHOULD evaluate existing research for practical advice on goals .................................................... AGREE

STATE LEVEL
1. The state level SHOULD assist local districts in defining goals for gifted programs ........................................... AGREE

LOCAL LEVEL
1. The local level SHOULD develop goals that are specific to particular programs and populations ........................................... AGREE

2. The local level SHOULD make explicit the goals of creativity, self-initiative and risk-taking rather than conformity to teacher or testmaker expectations ........................................... AGREE

3. The local level SHOULD state goals clearly and specifically ........................................... AGREE

4. The local level SHOULD conduct a needs assessment ........................................... AGREE

ISSUE #6: DEFINITION OF THE TERM "GIFTED"

FEDERAL LEVEL
1. The federal level SHOULD conduct major conference to try to reach consensus on a broad definition of the term "gifted" ........................................... AGREE

2. The federal level SHOULD put "clout" into the already established definition so that it is implemented ........................................... AGREE

3. The federal level SHOULD emphasize potential rather than achievement when discussing gifted children ........................................... AGREE
Issue #6, Definition of the term "Gifted", continued

STATE LEVEL

1. The state level SHOULD provide guidelines for local school districts
   that direct the inclusion of a variety of giftedness .......................... AGREE DISAGREE

2. The state level SHOULD provide a framework definition .................. AGREE DISAGREE

3. The state level SHOULD clarify types of programs that will be funded, and
   specify measurable criteria for each ........................................ AGREE DISAGREE

4. The state level SHOULD monitor districts for compliance with federal
   definition (compliance would be required for funding) .................. AGREE DISAGREE

LOCAL LEVEL

1. The local level SHOULD develop a definition of gifted based on
   grass roots origin (i.e., local colleges and local schools) ............... AGREE DISAGREE

2. The local level SHOULD accept and implement the federal definition
   of gifted ............................................................... AGREE DISAGREE
ROUND 2, SECTION 2: DEFINITION OF GIFTED

GIFTEDNESS IS:

1. The potential for exceptional development of specific abilities .................. AGREE DISAGREE
2. The demonstration of performance capability at the upper end of a
talent continuum .............................................. AGREE DISAGREE
3. Not limited by age, gender, race, socioeconomic status, or ethnicity .......... AGREE DISAGREE
4. A psychological trait descriptor of positive exceptionality .................... AGREE DISAGREE

A GIFTED CHILD IS ONE WHO:

1. Demonstrates potential capability in general intellectual ability ................ AGREE DISAGREE
2. Demonstrates potential capability in specific academic aptitude .............. AGREE DISAGREE
3. Demonstrates potential capability in leadership ability .......................... AGREE DISAGREE
4. Demonstrates potential capability in visual and performing arts ................ AGREE DISAGREE
5. Demonstrated potential capability in creative productive thinking ............ AGREE DISAGREE
6. Is developmentally advanced in one or more areas, and exhibits the
   characteristics of giftedness ........................................ AGREE DISAGREE
7. Is developmentally advanced and is therefore in need of a differentiated school
   program in order to develop at his or her own accelerated pace .............. AGREE DISAGREE
8. Has potential or demonstrated outstanding ability in a specific talent or in
   multiple areas, and who requires supportive educational services in order to
   function at the level of his or her potential .................................. AGREE DISAGREE

A GIFTED ADULT IS ONE WHO:

1. Makes independent and creative contributions to a field that cannot be ignored AGREE DISAGREE
2. Shows an unusual skill, ability, or talent in one or more areas of intellect,
   leadership, or in the visual or performing arts .................................. AGREE DISAGREE
3. Demonstrates exceptional performance in an area of value ..................... AGREE DISAGREE
Appendix T

Round 3, Section 1: Agreement or disagreement: actions to be taken at federal, state and local levels (N = 29)

ISSUE #1: CURRICULUM FOR THE GIFTED: FEDERAL LEVEL

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1. Catalytic Support:
   - The federal level should provide catalytic support for the development of model or exemplary curriculum projects for gifted students .......................................................... 25 86 4 A
   - The federal level should provide catalytic support for requirement that funding be used for required courses rather than pull-out enrichment ........................................... 7 22 76 DIS

2. The federal level should disseminate information on effective curriculum projects ................................................ 28 97 1 A

STATE LEVEL

1. Support:
   - The state level should provide support for model curriculum projects .......................................................... 26 90 3 A
   - The state level should provide support for legislation to ensure that effective curricula are implemented .......................................................... 24 83 5 A

2. The state level should adopt federal guidelines regarding curriculum for the gifted .......................................................... 11 15 58 26 DIS

3. The state level should provide assistance to local school districts in defining "differentiated curriculum" .......................................................... 27 93 2 A

4. The state level should require that funds be used for required courses rather than "pull-out" enrichment .......................................................... 9 20 69 DIS

* Percentages calculated and shown for all above 80% AGREE, and above 60% DISAGREE. (table continues)

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N = 29 unless noted in this column

Round 2 results: A = Agree; DIS = Disagree; EVEN = evenly divided between the 3 choices
#1: Curriculum for gifted, continued

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<td>2. The local level should provide inservice for teachers on appropriate curriculum for gifted</td>
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<td>3. The local level should allow G/T teachers released time for curriculum development</td>
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<td>5. The local level should implement research findings</td>
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ISSUE #2: PROCEDURES FOR IDENTIFYING CHILDREN FOR GIFTED PROGRAMS: FEDERAL LEVEL

1. Guidelines:
   - The federal level should establish guidelines on tests used for identifying children for gifted programs. .................................. 14 15 EVEN
   - The federal level should establish guidelines on identification which will produce program similar to PL 94-142 (Education for all Handicapped Act). .................................. 12 17 DIS

2. Catalytic support:
   - The federal level should provide catalytic support for programs only if identification procedures are appropriate to curriculum. ........ 19 9 28 A
   - The federal level should provide catalytic support for research on identification of children for gifted programs. ................. 28 97 1 A

3. The federal level should provide assistance to states in writing rules and regulations regarding identification of gifted students. 19 10 DIS**

4. The federal level should share knowledge and research on identification for better decision making. ........................................ 27 96 1 28 A

STATE LEVEL

1. The state level should establish guidelines for identification. .............. 24 86 4 28 A
2. The state level should recommend approaches and procedures for identification that include all parts of definition of gifted. .............. 25 89 3 28 A
3. Procedures: The state level should establish procedures that are:
   - consistent with federal guidelines ...................................... 16 12 28 EVEN
   - in compliance with best practices determined from research .......... 28 97 1 A

** Discrepancy between Round 2 and Round 3 results (table continues)
#2: Identification Procedures, continued

4. The state level should provide support of local pilot projects meeting needs of multiple talents .......................... 26 93 2 28 A

5. The state level should broaden definition beyond academically talented ........ 25 89 3 28 A

6. The state level should adjust entry level criteria to fit budgets .................. 2 24 92 26 DIS

7. The state level should adopt inclusive policies that permit all children having +2 standard deviations on standardized IQ test to receive services . . 18 9 27 EVEN**

8. The state level should write regulations making K-12 program mandatory . . . . . . . 24 92 2 26 A

LOCAL LEVEL

1. Procedures: The local level should establish procedures that are:

   - consistent with federal and state guidelines ............................. 20 7 27 A
   - specific to local student population ...................................... 22 6 28 A
   - appropriate to curriculum offered ........................................ 23 82 5 28 A

2. The local level should train school psychologists and counselors in identification of g/t students ................................. 27 96 1 28 A

ISSUE #3: SELECTION AND TRAINING OF TEACHERS FOR THE GIFTED: FEDERAL LEVEL

1. Guidelines:

   - The federal level should establish guidelines on selection of teachers for the gifted .................................................. 12 17 DIS

   - The federal level should establish guidelines on training of teachers for the gifted .................................................. 15 14 EVEN

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Teachers, continued

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2. Catalytic support:

- The federal level should provide catalytic support for certification programs for teachers of the gifted

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- The federal level should provide catalytic support for fellowships and scholarships for teachers of the gifted

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3. The federal level should promote graduate level study of gifted/talented

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4. The federal level should be involved in teacher selection and training

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STATE LEVEL

1. Standards:

- The state level should establish state standards that mandate certification

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- The state level should establish state standards for teacher training

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2. The state level should require gifted education as graduate program only

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3. Support:

- The state level should provide funding or support for teacher education programs leading to certification in gifted/talented education

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- The state level should coordinate college and university training programs

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- The state level should investigate teacher training through alternative modes, not just universities

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- The state level should support partnerships between universities and local school districts

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### LOCAL LEVEL

#### 1. Qualifications for teachers of the gifted:

- The local level should hire only teachers certified in gifted education  
  
  - The local level should hire only teachers having at least 3 graduate courses in gifted education  
  
  - The local level should hire only teachers trained in gifted education, with appropriate experience and credentials  
  
  - The local level should employ national searches to locate teachers  
  
  - The local level should comply with state certification regulations 

#### 2. Teacher training:

- The local level should design comprehensive plan for inservice training for all teachers, whether teaching gifted or regular students  
  
  - The local level should train teachers in both content and teaching strategies, emphasizing individual differences  

#### 3. The local level should provide financial incentives to teachers of gifted 

*(table continues)*
ISSUE #4: SPECIAL POPULATIONS OF GIFTED: UNDERACHIEVERS, HIGHLY GIFTED, MINORITIES, HANDICAPPED, FEMALES.

VERY YOUNG GIFTED CHILDREN: FEDERAL LEVEL

1. Policies:
   - The federal level should establish policies to ensure that special populations of gifted students are reached and served .............................................. 23 6 A
   - The federal level should establish advocacy policies for special populations of gifted students .................................................. 25 86 4 A

2. The federal level should limit catalytic support only to programs that identify representative populations of poor, minority, and handicapped gifted students ............................................. 8 21 72 DIS

3. The federal level should recognize the needs of the highly gifted ....... 26 90 3 A

STATE LEVEL

1. The state level should establish guidelines regarding special populations of gifted students .................................................. 29 100 0 A

2. Funding:
   - The state level should limit funding only to programs that identify representative populations of poor, minority, and handicapped gifted students .................................................. 9 20 68 DIS
   - The state level should provide funding in the form of grants and workshops to develop programs for special populations ............................................. 28 96 1 A

3. The state level should share knowledge regarding successful programs in minority enrollment .................................................. 29 100 0 A

4. The state level should set priorities for meeting needs of specific populations .................................................. 24 83 5 A

(table continues)


#4: Special Populations of gifted, continued

5. The state level should encourage development of special programs and identification methods for the highly gifted .......................... 26 90 3 A

LOCAL LEVEL

1. The local level should implement research findings regarding special populations of gifted ........................................... 28 97 1 A

2. The local level should renorm tests to obtain representative population ........ 8 20 71 28 DIS

3. The local level should diagnose all underachieving students ............... 24 83 5 A

4. The local level should allow early entrance and other accommodations for highly gifted students ....................................... 29 100 0 A

ISSUE #5: GOALS OF GIFTED PROGRAMS: FEDERAL LEVEL

1. The federal level should establish guidelines regarding development of creativity and intrinsic motivation as goals, rather than grades and test scores .......................................................... 14 14 28 DIS**

2. The federal level should provide catalytic support for research goals ...... 27 93 2 A

3. The federal level should evaluate existing research for practical advice on goals .......................................................... 26 90 3 A

STATE LEVEL

1. The state level should assist local districts in defining goals for gifted programs ........................................... 28 97 1 A

(table continues)
LOCAL LEVEL

1. The local level should develop goals that are specific to particular programs and populations 27 96 1 28 A

2. The local level should make explicit the goals of creativity, self-initiative, risk-taking rather than conformity to teacher or testmaker expectations 22 6 28 A

3. The local level should state goals clearly and specifically 29 100 0 A

4. The local level should conduct a needs assessment 27 93 2 A

ISSUE #6: DEFINITION OF THE TERM "GIFTED": FEDERAL LEVEL

1. The federal level should conduct major conference to try to reach consensus on a broad definition of the term "gifted" 8 21 72 DIS

2. The federal level should put "clout" into the already established definition so that it is implemented 13 16 DIS

3. The federal level should emphasize potential rather than achievement when discussing gifted children 17 11 28 EVEN**

STATE LEVEL

1. The state level should provide guidelines for local school districts that direct the inclusion of a variety of giftedness 26 90 3 A

2. The state level should provide a framework definition 27 93 2 A

3. The state level should clarify types of programs that will be funded, and specify measurable criteria for each 24 82 5 A

4. The state level should monitor districts for compliance with federal definition (compliance would be required for funding) 12 16 28 DIS

(table continues)
#6: Definition of the term *gifted*, continued

<table>
<thead>
<tr>
<th>LOCAL LEVEL</th>
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<th>DIS</th>
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<tr>
<td>1. The local level should develop a definition of gifted based on grass roots origin (i.e., local colleges and local schools)</td>
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<td>DIS</td>
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<td>2. The local level should accept and implement the federal definition of gifted</td>
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<td>15</td>
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