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KENTUCKY'S EXPERIMENTAL GIFTED AND TALENTED EDUCATION PROGRAM

Research Report No. 212
Legislative Research Commission
Frankfort, Kentucky

Program Review & Investigations Committee

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KENTUCKY'S EXPERIMENTAL GIFTED AND TALENTED EDUCATION PROGRAM

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Research Report No. 212

Legislative Research Commission
Frankfort, Kentucky
April, 1984

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This report was prepared by the Legislative Research Commission and paid for from state funds.

FOREWORD

The 1982 General Assembly, in the 1982-84 Appropriations Act, requested the Program Review and Investigations Committee to conduct a study of the statutory provisions and operations of the experimental gifted and talented education program created in 1978. The resulting report, which follows, and its recommendations were adopted by the Program Review and Investigations Committee on October 4, 1983.

Our appreciation is extended to the Department of Education, local school districts, educators and parents, who cooperated in this study. Particular appreciation is extended to Susan Leib and Joe Clark in the Bureau of Instruction, and Larry Groce, Sandy Deaton, Esther Robison and Jeanie Privett of the LRC staff, for their assistance.

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The Capitol
Frankfort, Kentucky
April, 1984

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LIST OF DEFINITIONS AND ABBREVIATIONS

Accelerated program. A program designed to move a student forward in the education process by providing advanced curriculum, moving the student to a higher grade level, or early placement in college.

Cognitive skills training. Curriculum designed to improve or strengthen students' abilities to think logically, solve problems, and to think creatively and abstractly.

Cognitive Skills Index (CSI). This is an age-based standard score that describes an individual's performance on the TCS as a whole. It indicates overall cognitive ability or academic aptitude.

Comprehensive Tests of Basic Skills (CTBS). An achievement test measuring academic performance. It includes the areas of reading, spelling, language, math, science and social studies.

Developmental activities. Curriculum development based on progresssively more difficult and higher cognitive and skill learning, assuring continuity between activities and years in school.

Differentiated educational programs. Learning experiences using teaching techniques, curriculum materials, and resources not routinely used in the regular classroom.

Enrichment program. Programs designed to provide curriculum and experiences not traditionally provided within the regular classroom, e.g., specialty classes, cognitive skills training, field trips, lectures, mentorships.

Gifted Students. Theoretically, these are students demonstrating general intellectual abilities of an exceptional nature, e.g., upper five percent on achievement or cognitive attitude tests or IQ's of 125 or above. In Kentucky, the term "gifted" is applied to both gifted and talented students.

Mentorships. Assigning students to work with a community person involved in a profession or activity of special interest to the student's career or future aspirations.

Percentile score. A ranking based upon the percentage of population scoring below a certain level, e.g., 99th percentile indicates that 99% of the population scored below a certain peron or group.

Pull-out program. Movement of children from their regular classroom to a separate, special class for portions of the day or week. In Kentucky this commonly involves one-half to one day a week.

Stanine score. The stanine is a standard test score related to a scale of nine equal uints, 1 to 9, with a mean of 5 and a standard deviation of 2. It is designed so that 4% of the popula-

tion falls in both the highest stanine (9) and the lowest (1), 7% each in the 8th and 2nd, 12% each in the 7th and 3rd, 17% each in the 6th and 4th, and 20% in the 5th.

Talented students. Theoretically, these are average or above average students who demonstrate exceptional intellectual ability or aptitude in select areas of academics or arts. In Kentucky, only the term "gifted" is used and includes talented students as well.

Test of Cognitive Skills (TCS). One of two tests, administered in the statewide testing program. It is designed to identify potential cognitive ability level or academic aptitude rather than achievement by measuring the student's abilities to reason logically, to understand relationships, and to recall. It produces a score (CSI) similar to an IQ score.

SUMMARY

In the 1982 Appropriations Act, the Kentucky General Assembly mandated that the Program Review and Investigations Committee

> study the statutory provisions and operations with regard to the Gifted and Talented Program to determine the effectiveness, worth and advisability of continuance beyond fiscal year 1983-84 and . . . report its findings and recommendations to the 1984 General Assembly.

The study undertaken by the Program Review and Investigations Committee had three main objectives:

- to determine the degree to which the statewide program had been developed and implemented as mandated;
- to determine the effectiveness of the state's Gifted/Talented experimental programs; and
- to identify the perceived strengths and weaknesses of the current state approach.

This report and its findings were reviewed by the Committee in September and October, 1983. The recommendations contained herein are as amended and approved by the majority at the Committee. A minority report was requested by three members of the Committee who felt that high achievement rather than high potential should be the major selection criterion for acceptance into a gifted or talented program. This request was granted by the Committee but was withdrawn later.

Data was collected from several sources, including Department of Education reports, grant applications, and visits to sixteen districts. Interviews were conducted with Department of Education staff, University of Kentucky faculty, and superintendents, principals, teachers and program coordinators in sixteen districts. Fifty-three program coordinators and fifty-three planning grant coordinators were surveyed, along with 251 regular classroom teachers. Professional educator and parents groups were also surveyed.

Since FY 1978 the Kentucky General Assembly has funded an experimental program for gifted and talented education. Originally, $.6 million was appropriated for this program. As of FY 1984, the amount had grown to $5.1 million. The program is administered by the Department of Education. According to statute, programs are to be funded on the basis of approved annual applications. In 1982 the Department eliminated the competitive grant procedure and developed a unit funding formula to provide funds to all 180 school districts.

The program has grown since FY 1978, when twenty-three districts and 6,804 students were served. By FY 1983 the program was serving sixty-five districts and 13,679 students. In FY 1984, the program will be expanded to 171 districts.

Despite the requirement that the grant programs be evaluated by the state Department of Education (DOE) and the local district grantees, no meaningful evaluation of the programs has been conducted by the DOE and evaluation efforts by local grantees are varied and are based primarily on the subjective perceptions of staff, students and parents. The DOE orientation has been primarily to fund as many programs as possible. Local districts have been given wide discretion in the programs they use and minimal effort has been made to systematically study programs to identify effective and cost-efficient approaches.

In the five years since its inception, this experimental program has not provided data on the identification and development of program approaches that are effective and cost-efficient. Furthermore, the needs of gifted students in Kentucky, the effective methods for local district determination and the effective curriculum and program approaches to meeting these needs have not been identified.

Local district programs have tended to adopt a separate class, pull-out approach to programs in the elementary schools, while specialty and advanced classes are more frequent in middle and senior grades.

The programs are concentrating on identifying and serving the academically or intellectually advanced students. Although superior students are being served, there is a tendency to include high achieving students (not necessarily students with superior intellectual abilities) and to view the program as a reward for academic performance.

There is general agreement among administrators, teachers and parents that the educational needs of gifted and talented students do require special programs and that these needs are not now met through the regular classroom. These persons do not agree, however, on the most suitable program approaches.

Given the lack of adequate evaluation and research data to support the effectiveness of the local programs, changing from an experimental program is not advisable. At the current level of funding ($19,500 for seventy-five students), the total appropriation needed to serve five percent (32,554) of the state's students would be $8.5 million per year.

Before expenditures of this size are committed on a permanent basis, a thorough study of approaches and curriculum is needed. Furthermore, the needs, goals, and objectives of the state's program must be firmly established.

RECOMMENDATIONS

1. The General Assembly should maintain the Gifted and Talented Program as an experimental program for another biennium. An allotment of $500,000 per year to hire additional personnel and to cover the expenses of an in-depth evaluation of alternative programs and curriculum should be approved.

2. KRS 158.600 should be amended to establish an Advisory Council for Gifted Education, attached to the State Board of Education, to study and to recommend

to the State Board a program of instruction for gifted and talented students in the Commonwealth.

Membership and Staffing

The Advisory Council should be composed of ten voting members appointed by the governor and two non-voting members.

- Two members should be superintendents of local school districts.
- Three members should include one regular classroom teacher, one teacher of gifted pupils, and one coordinator of a local district gifted education program.
- Two members should include one professor of gifted education and one professor with expertise in the area of testing measurements.
- One member should be from the Kentucky General Assembly.
- One member should be a parent advocate of gifted and talented education.
- One member should be a parent at-large.
- The Chairman of the Kentucky State Board of Education and the Superintendent of Public Instruction should be ex-officio, non-voting membrs.

Personnel of the Department of Education assigned to the gifted and talented program should serve as staff to the Council. The Superintendent of Education should contract for additional consultation and technical expertise outside the Department of Education as needed.

All operating expenditures should be paid through funds available to the Gifted and Talented Program, as approved by the State Board.

Powers and Duties of the Advisory Council

The Advisory Council for Gifted Education should support the activities intended by KRS 158.600 through KRS 158.620. In addition, the powers and duties of the Advisory Council for the 1984-86 biennium should be to:

(1) define the goals and objectives of the instruction of gifted and talented students in the Commonwealth;

(2) define the student population or populations who would benefit by the instruction of a gifted and talented program;

(3) set a priority for those populations who are most in need of instruction, if funding does not permit total service;

(4) define the identification criteria which will best delineate these student populations from the rest of the elementary and secondary student population;

(5) determine through a research program:

(a) literature relevant to the development and design of programs;

(b) programs outside the Commonwealth, whose organizational structures, instructional activities and program operations which together or separately effectively accomplish the stated program goals and objectives; and

(c) experimental program appoaches effective and cost-efficient for Kentucky's schools;

(6) advise and approve the design of those methodologies by which this research program shall be achieved by the DOE;

(7) determine the cost of the various gifted and talented instructional services and the best allocation method to meet the identified need;

(8) design a statewide implementation plan which integrates the Advisory Council's recommendations into the local school district's program; and

(9) advise and approve a monitoring and ongoing evaluation system developed by the DOE which would assure continual implementation of successful program components.

Reporting and Timeframe

The Advisory Council should report its activities to the State Baord of Education by way of its meeting minutes. Additionally, the Advisory Council should adopt a workplan within the first six weeks of its operations and report quarterly to the State Board, the Governor, and the Legislative Research Commission, concerning its scheduled progress. Finally, the Advisory Council should make an annual written report to the State Board of Education, the Governor and the LRC, and a final written report at the end of each biennial term which includes, but is not limited to, all areas of discovery as outlined in the powers and duties section above.

A detailed report on activities, findings, and recommendations should be submitted by the Advisory Council to the General Assembly prior to their convening in each biennial session.

Districts now receiving funding for experimental gifted and talented programs are serving students other than the gifted and talented (those with exceptional potentials), notably high achievers or good performers. Methods commonly utilized have the potential of excluding those who have exceptional potential but are not performing. In addition, few handicapped and minority students are being served and few districts have any special identification procedures for these groups.

RECOMMENDATIONS

3. Until such time as the Advisory Council adopts identification procedures, the Department of Education should require the use of a two-step identification and selection process for programs serving the intellectually gifted student.

   STEP ONE: Initial screening should utilize the eighth and ninth stanine of the Test of Cognitive Skills (TCS), as well as teacher identification and behavioral measures.

   STEP TWO: Final program selection should depend upon independent testing and needs assessment, including individual aptitude or cognitive abilities tests, creativity measures, and behavior-ability discrepancy measures. The objective of this selection process should be to identify those students with greatest intellectual potential, their differentiated program needs and the means of meeting these needs.

4. Programming at the local level should be based upon the individual needs of the students identified. Programs should utilize both in-class and out-of-class approaches to ensure the students' needs are being considered and met throughout the school day rather than only during select times.

5. The Department of Education should assist local districts in developing special procedures to ensure that minority, handicapped and very young (grades K-3) gifted and talented stduents are identified and served.

Informally the state's program has developed with a strong emphasis toward providing enrichment through cognitive skills training, provided in one-half to one-day pull-out programs. No data exists to determine the effectiveness of this approach in terms of cost or pupil performance.

In 1984, the Board and Department plan to provide program monies to a total of 171 districts. One hundred and six will be operating programs for the first time. The development of these programs will be done independently by each district. Although they have access to other districts in the state with programs, program evaluation data is not available to the districts for deciding what approach or approaches would be most effective to implement.

A survey of fifty-three program coordinators receiving planning grants in 1983 indicated that seventy-four percent felt they would need consultation or assistance in identifying successful model programs. In this same survey, fifty-three percent indicated that exploration of successful programs would be their first priority in planning. Eighty-five percent ranked this as one of the top three priorities. Forty-six percent of these planning grant coordinators felt that the Department of Education would be the best source of assistance or consultation in identifying successful programs. Another forty percent through other districts would be. Unfortunately for these planning districts, the only data available is either descriptive or subjective.

The need for information on successful programs is not limited to the planning grant districts. A survey of current program coordinators indicated that twenty-eight percent need assistance in identifying successful Kentucky programs, while thirty percent need assistance in identifying model programs in other states.

RECOMMENDATIONS

6. KRS 158.610 should be amended to require that the Department of Education, under the guidance of the Advisory Council for Gifted and Talented Education, develop and implement an evaulation procedure to monitor the activities of the gifted and talented program. This evaluation procedure should involve two components.

   First, a program evaluation component should be developed: to determine the needs of students and the impact of the program on these needs; to determine the immediate and long-term effects of the program on student performance, including academic performance, cognitive abilities, retention rates, personal and social development, and career accomplishments; to determine effective and cost-efficient program approaches and curriculum; and to determine effective and efficient identification methods.

   Second, a monitoring and oversight component should be developed to provide: information on the operation of the local programs; information on their compliance with program guidelines and requirements; and feedback for ongoing improvement of the local and statewide program.

7. KRS 158.610 should be amended to require that local school districts which receive funds from the state for a gifted and talented elementary or secondary school program develop evaluation procedures, according to guidelines issued by the Department of Education, to produce valid and reliable information on the effectiveness and cost-efficiency of their program approach. Evaluations should be formalized and approved by the Department and include subjective and objective indicators of effects related to the identified needs of the students. They should include formal evaluations by teachers, students, parents, and administrators. They should include estimates of their cost-effectiveness. Finally, they should result in a formal report to the state's Department of Education.

The General Assembly has maintained the experimental nature of the program by continually appropriating monies to the Bureau of Instruction rather than to the Foundation Program. The Department of Education and the state Board of Education have interpreted "experimental" as a gradual phasing in of districts and in 1982 eliminated the competitive grant process in favor of a unit funding formula open to all school districts. As a result funding has been committed to 171 districts. The funding formula is biased toward small districts, providing considerably more per student funding to them. It allows districts to serve five perent of their students and ignores different student ability levels in different districts, thereby resulting in inequitable program availability. Furthermore, the seventy-five student per unit requirement forces small districts to use more lenient identification procedures, while forcing larger districts to be more stringent.

RECOMMENDATION

8. The Board of Education should revise the current funding guidelines to allow districts to serve more than five percent of the district total or per grade when the percentage of eligible students is greater. The Advisory Council should be responsible for reviewing and approving all program requests beginning in the 1984-85 school year. The current unit amounts should be used as the maximum limit a district may receive based upon program approach, grades served, types and numbers of gifted and talented students served and evaluation results. The purpose of funding in 1984-1986 should be the development and evaluation of alternative program approaches.

9. The Advisory Council, through the Department of Education, should make special experimental grants to a sample of districts willing to participate in the Council's research project to develop, identify, and test alternative programming, curriculum and identification methods.

The Department has failed to implement several objectives of the Ten-Year Plan, including staffing, preparation of a coordinator's guide, and establishment of an Advisory Council.

School districts indicate the need for more assistance from the state's Department of Education in such areas as programming, curriculum development, training, identification and evaluation. The Advisory Council will also require staff assistance to carry out its functions. Currently the Department has only one full-time person assigned to the program.

RECOMMENDATION

10. As called for in the Ten-Year Plan for Gifted Education, the Department of Education should increase by at least three (for a total of four) the number of full-time personnel assigned to the administration of the gifted and talented program in the Bureau of Instruction. These persons should possess strong background experience (Master's degree or equivalent) in gifted and talented education. As a group they should represent expertise in the areas of program design, curriculum, identification and evaluation. These persons should be responsible for technical consultation and assistance to the local districts, oversight and evaluation, and providing staffing to the Advisory Council.

    The estimated cost of this recommendation is $100,000 per year.

CHAPTER I

INTRODUCTION

In the 1982 Appropriations Act the Kentucky General Assembly mandated that the Program Review and Investigations Committee

> study the statutory provisions and operations with regard to the Gifted and Talented Program to determine the effectiveness, worth and advisability of continuance beyond fiscal year 1983-84 and . . . report its findings and recommendations to the 1984 General Assembly.

Study Overview

The study undertaken by the Program Review and Investigations Committee had three main objectives:

- to determine the degree to which a statewide program had been developed and implemented as mandated;
- to determine the effectiveness of the state's Giftred/Talented experimental programs; and
- to identify the perceived strengths and weaknesses of the current state approach.

Objective one included the program's growth, uniformity of approach, and compliance by the Department of Education (DOE) and local school districts (LSD's) with statutory mandates.

Objective two included a determination of the effectiveness of the DOE's administration of the program, the effectiveness of LSD approaches, and a comparison of Kentucky's program with those of the seven surrounding states.

Objective three concentrated on determining the aspects of the state's program to be continued or modified and areas of need to be addressed. Relevant information was obtained from school administrators, teachers, professional and parent education groups and members of the research team.

Methodology

Data on program growth, change, and administration were gathered from a variety of sources, including DOE reports and interviews, budget documents, and Program Review and Investigations (PRI) staff reviews of grant applications.

Several surveys were developed to obtain the views of current program coordinators, planning grant coordinators, regular classroom teachers and parent and professional education groups. Forty-five (of sixty-five) program coordinators and fifty-three (of one hundred and six) planning grant coordinators were surveyed during a two-day coordinators workshop sponsored by the DOE in November, 1982.

Five hundred and eighteen regular classroom teachers were surveyed from a list of 649 teachers submitted from the sixteen grantee districts chosen for a field visit review. The original list contained all teachers having gifted and talented program students in their regular classrooms. A maximum number of forty teachers per district was identified. All teachers were surveyed in districts with forty or less. In districts with more than forty, forty were chosen randomly through the use of random number tables. The resultant range of teachers surveyed per district was forty-four percent to one hundred percent. Two hundred and fifty-one, or 48.5 percent, of the teachers responded.

Sixteen of the sixty-five school districts (twenty-five percent) receiving grants in 1981-82 were chosen for a detailed field visit. These districts were stratified according to their years in the program (one to four years) and student size (0-2000, 2001-5000, and 5001-greater). A random number table was used to choose two districts from each size category in the three and four year programs. Two districts from each of the one and two year programs were chosen under the constraint of only one program per size category for each year. Eliminating Jefferson County (representing thirty percent of the student population), which was not randomly chosen from the total student population, the resultant sample represents districts accounting for approximately twenty-five percent of the student population (eighteen percent with Jefferson County). Twenty-seven percent of the state's independent districts are represented, as well as twenty-five percent of the county districts. Geographically there was a slight clustering in central and northern Kentucky, but both east and west extremes were included.

The detailed field visits consisted of interviews, document reviews and program observations conducted by two-person teams. The Superintendent, two principals, the program coordinator and all gifted program teachers were interviewed in depth.

In addition, all grant application files from 1978 through 1982 were reviewed to obtain basic descriptive information about the programs. The files for the sixteen-district sample were reviewed in detail prior to the field visits, to ensure an adequate knowledge base.

Program administrators in the seven surrounding states' Departments of Education were contacted to provide information on their gifted and talented activities, statutes and funding.

Finally, nine professional educator groups in Kentucky and six parent groups were requested to respond to a list of eight questions concerning operation of the program and their perceived strengths and weaknesses. Only three professional groups (the Kentucky Education Association Special Education Caucus, the Kentucky School Boards

Association, and the Kentucky Association of Secondary School Principals) and three parent groups (the Kentucky Parent Teacher Association, the Kentucky Congress of Parents and Teachers, Inc., and the Kentucky Association for Gifted Education) responded.

Report Overview

The report is divided into six chapters. The introduction to each chapter and major section provides an overview of the contents and a brief summary. Recommendations are included in the report immediately following the findings to which they apply.

Chapter II is a brief overview of the theoretical basis for gifted and talented education, including characteristics and needs of the children, program approaches and program considerations.

Chapter III describes Kentucky's general statutory and administrative approach to gifted and talented education. It also reviews the state's Ten-Year Plan for Gifted Education and the administrative regulations governing grant applications and program guidelines. A comparison of Kentucky's approach to that of the seven surrounding states is presented as Appendix A.

Chapter IV provides a description of the appropriations and expenditures for the program since 1978. It includes a description of the grant process and districts receiving grants. Also included is a description of the growth of the program in number of districts and number of students served, as well as the types of program approaches being used.

Chapter V presents data related to evaluation of the local programs. The weaknesses of the local district evaluation activities is discussed first. Following this discussion is a review of the operation of these programs and their effectiveness in meeting student needs and serving the appropriate population.

Chapter VI presents an evaluation of the Board and Department of Education's activities in the areas of administration, oversight and technical assistance.

CHAPTER II

EDUCATING THE GIFTED AND TALENTED: A THEORETICAL OVERVIEW

The history of the American educational system has been one of focusing on the needs of the majority or the average student. The inability of this approach to deal with children having special needs has been recognized. However, most financial and program emphasis has been placed on serving the special needs of the slow learner, the learning disabled and the handicapped. Gifted and talented children have more recently come to be recognized as having special needs. This lag has been partially due to their ability to handle the regular classroom without demanding a great amount of attention and resources.

Since the 1970's there has been a movement to identify and address the needs of the gifted. The regular classroom approach is considered to be a hindrance to the development of the full potential of these children. The slow pace, the level of material and the structure tend to work against the gifted and talented children. Emotional adjustment problems, lost motivation, underachievement, and boredom are some of the effects attributed to not meeting the needs of this group. Critics of special programs for the gifted point out that they may lead to the development of elitism and the further diversification of funds and resources which may hurt the overall educational system.

This chapter reviews the characteristics and needs of gifted and talented children as identified by various educators. It then reviews the variety of approaches to programming that have been identified and discusses some of the concerns or program considerations that are important in the development of gifted and talented programs.

Need for Special Programs

Gifted and talented children are those who demonstrate or have the potential of superior performance in one or more areas of mental ability, academic subjects or the arts. These children generally function at higher levels of reading, language, thought and understanding than the average child and require faster, more advanced and freer educational environments. Their needs in the traditional areas of education can be addressed in the regular classroom, although adjustments are necessary to compensate for their knowledge level and acquisition speed. Other needs, such as thought development, personal adjustment, creative expression and independent exploration, require programs outside the regular classroom.

Characteristics

Gifted and talented children are generally defined by federal and state laws as those children demonstrating or having potential for high performance because of intellectual or creative abilities, specific academic or leadership ability, or talent in performing and visual arts, who require an educational environment different from that normally provided. Generally the term "gifted" is applied to those children with superior mental ability, the upper two or three percent, having IQ scores above 125. "Talented" students are those children who demonstrate unique abilities in specific academic or artistic areas but who do not necessarily score in the superior range of mental ability.

The needs of gifted and talented children vary according to the areas of giftedness they demonstrate. However, there are four overall needs they share in common.[1]

- The need to move at their own rate, regardless of chronological age or grade placement;
- The need for diversity in their educational experiences, in terms of instructional strategies, materials, and types of activities;
- The need to be challenged and stimulated in an environment that allows children of similar abilities to learn from each other; and
- The need for counseling in:
  (a) coping with the exceptionality of being gifted;
  (b) decision-making; and
  (c) school/career/life planning.

Table 1 lists the more specific needs of gifted children accoring to the variety of characteristics they may exhibit.[2]

Talented children may share some or all of these characteristics and needs. However, by definition, their needs are more directly related to specific academic or artistic areas. Generally, they require enhanced opportunities for exploration, independent study and advanced training to promote further development of their talents.

All children could benefit from the development of creative thinking skills, but for gifted and talented children, this area is especially important, given their greater levels of mental ability.[3] Teaching creativity through an emphasis on thinking and problem-solving skills can further enhance the gifted and talented children's capability to utilize their mental abilities.

TABLE 1

CHARACTERISTICS AND NEEDS OF GIFTED AND TALENTED STUDENTS

Characteristic	Need
Ability to handle abstractions	To engage in higher level thinking situations and operations.
Problem-solving powers	To experiment with structured and unstructured problems, both real and hypothetical.
Reading ability and related strengths	To engage in reading, discussion, and language study.
Curiosity (alert, eager, diversity of interest)	To explore phenomena with which he/she comes in contact.
Criticism	To channel evaluative judgments toward constructive ends.
Creativity	To express himself/herself through a variety of forms and contexts.
Concentrational powers goal-directed)	To participate in long-term projects and activities that are meaningful.
Independence	To pursue solitary endeavors.

SOURCE: Joyce Van Tassel-Baska. An Administrator's Guide to the Education of Gifted and Talented Children. National Association of State Boards of Education, Washington, D.C.: 1981.

Educational Approach

Traditional education classrooms are designed to serve the average student. Many special programs have been created to serve the needs of the below average and the handicapped student. Little is being done to serve the needs of the exceptional students within the regular classroom, partially because these students demand less attention and perform the expected work without needing assistance, and partially because of the assumption that they can perform on their own.

A comparison of the gifted child's abilities with those of the average child indicates several differences. Gifted children often demonstrate the ability:

- To read earlier and with greater comprehension of nuances in the language;
- To learn basic skills better (the gifted child usually learns them faster and need less practice. Overlearning can lead to boredom, cessation of motivation, and the commission of careless errors);
- To make abstractions when other children at the same age level cannot;
- To delve into some interests beyond the usual limitations of childhood;
- To comprehend, with almost nonverbal cues, implications which other children need to have "spelled out" for them (the gifted gouge out a greater amount of information and do so faster);
- To take direction independently at an earlier stage in life and to assume responsibility more naturally;
- To maintain much longer concentration periods (gifted young children become immersed with the facts and content of knowledge);
- To express thoughts readily and to communicate with clarity in one or more areas of talent, whether verbal, numerical, aptitudinal, or affective;
- To read widely, quickly, and intensely in one subject or in many areas;
- To expend seemingly limitless energy;
- To manifest creative and original verbal or motor responses;
- To demonstrate a more complex processing of information than the average child of the same age;
- To respond and relate well to peers, parents, teachers, and adults who likewise function easily in the higher-level thinking processes;
- To have many projects going, particularly at home, so that the talented child is either busily occupied or looking for something to do;

- To assume leadership roles because the innate sense of justice that is often noticeable in gifted children and youth gives them strength to which other young people respond.[4]

In the average classroom situation, emphasis is placed upon teaching many of the skills which gifted children already possess. Furthermore, much of the emphasis is on rote learning and memorization at a pace reasonable for the average child. Gifted children usually excel the average child initially and can learn at a more rapid pace. Futhermore, the structured and rigid learning approach restricts the child's ability and desire to explore areas of interest and to learn at a pace which prevents boredom.

A report to the U.S. Congress in 1970 by the U.S. Commissioner of Education summarized the major problems of failing to meet the specialized needs of gifted and talented children. These are:

- Gifted and talented children are, in fact, deprived and disadvantaged, and can suffer psychological damage and permanent impairment of their abilities to function well, which is equal to or greater than the similar deprivation suffered by any other population with special needs served by the Office of Education.

- There is an enormous individual and social cost when talent among the nation's children and youth goes undiscovered and undeveloped. These students cannot ordinarily excel without assistance.

- Approximately 3.4 percent of drop-outs in a statewide survey were found to have an IQ of 120 or higher.

- The majority of the gifted child's school adjustment problems occur between kindergarten and fourth grade.

Controversy Over Special Programs

Although special programs serving the educational needs of the disadvantaged, the slow learner, and the handicapped are a recognized need, there is a controversy about such programs for the gifted and talented. Critics of special gifted and talented programs cite several reasons:

- Regular classrooms can accommodate these needs through leveling or advanced classes;

- Special programs and labels may result in elitism or snobbery;

- Both gifted and non-gifted students can benefit from exposure to each other; and

- The introduction of teaching methods for gifted children into the regular classroom will benefit all students.

Approaches to Gifted and Talented Education

Programs for the gifted and talented must be diverse, to address the many differing needs of these children. They can be totally separate from the regular classroom or

school or be part of it. However, they must be sufficiently different in content to justify their use and be designed around the needs to be served. Additionally, they should be developmentally based, be cost effective, and provide sufficient exposure to accomplish their purpose.

Program Approaches

Given the great diversity of needs and types of students, a single approach to special programs is not feasible or desirable. In general, special gifted and talented programs are designed to:

- quicken the pace of learning by moving through instructional activities faster than would be appropriate for children of average ability;
- broaden the experimental and knowledge base of the children by offering opportunities to study subjects which are not offered in the regular curriculum;
- develop problem-solving skills by offering opportunities to practice higher-order or productive-thinking behaviors; and
- provide opportunity for concentrated in-depth study of areas in which the student is especially interested and able.

The three most widely used program approaches are: homogeneous groups, accelerated programs and enrichment programs. Homogeneous programs involve the identification of specific program criteria and the selection of students who meet these criteria. Generally these are programs involving specific academic or arts areas. All students involved must meet the minimum levels of ability established for these programs. Accelerated programs involve some form of rapid movement through the normal education system, such as early admission to kindergarten, high school or college; rapid movement through grades; or by-passing of grades. Enrichment programs usually supplement the regular classroom curriculum by providing additional activities related to specific topics or areas of study. Included in these programs are creative learning skills, independent study, field trips, mentorships, and great books programs.

The specific structure of these programs can take a variety of forms, depending upon the goals, personnel, and educational and funding resources available. Generally the structure will range from total separation to no separation between gifted and non-gifted students. This range of structures and sample approaches are shown in Table 2. The semi-separation approaches offer the greatest flexibility for providing for a variety of different needs. These approaches also tend to be less costly to implement. They also allow for use of the regular classroom in meeting the common needs of gifted and non-gifted children and allow for interaction and sharing between these groups.

TABLE 2

MODEL STRUCTURES FOR GIFTED AND TALENTED PROGRAMS

Total Separation	Semi-Separation	Zero Separation
Special Schools	Learning Centers	Cluster Groups (placing several gifted students in the same regular classroom)
Special Classes	Resource Rooms	Regular Classroom
Weekend or Summer Programs	Pull-out Programs	
	Mentorships or Internships	
	Extra-Curricular Programs	
	Special Interest Classes	
	Advanced Placement	
	Itinerant Teachers	
	Field Trips	
	Special Events	
	Independent Study	

SOURCE: Compiled from *An Administrator's Guide to the Education of Gifted and Talented Children*, by Joyce Van Tassel-Baska, and "Programs for Gifted Children," by Edwina Pendarvis.

Program Considerations

The type of program and the structure chosen is dependent upon several factors.

- Types and needs of children to be served;
- Goals and objectives of programs;
- Resources available (including funding, personnel and facilities);
- Grades served; and
- Educational philosophy.

The choice of program structure should ensure that certain features are included.[6] First, the structure and program should ensure that the gifted child is receiving a program that is differentiated from the regular classroom. Second, there should be program articula-

tion, to ensure that the student' progressive or developmental needs are addressed as the student progresses through the grades. Third, the approach chosen should be cost-effective. Finally, sufficient student contact time should be provided to meet the needs of the students and to ensure the effectiveness of the program.

CHAPTER III

STATUTES AND REGULATIONS GOVERNING GIFTED AND TALENTED EDUCATION

Although education of gifted and talented students is not new to Kentucky, the current emphasis and approach has existed only since 1978. This chapter provides a description of Kentucky's statutory and administrative approach, as determined from a review of the Kentucky statutes, Kentucky's Ten-Year Plan for Gifted and Talented Education, and policies and procedures adopted by the Board of Education and Department of Education. Information comparing Kentucky's program approach to those of the seven surrounding states is provided in Appendix A.

All seven surrounding states recognize the need for gifted and talented programs, but Kentucky is the only one which has an "experimental" program. Three states mandate that local districts provide services, while Kentucky and four others make programming permissive. Although Kentucky's expenditures on gifted and talented programs are in the middle for 1982-83, major increases in 1983-84 will put Kentucky at or near the top. This change will also place Kentucky at the top in percentage of students served (approximately five percent).

Kentucky's definition and identification criteria for gifted and talented students follow the federal model, which has been adopted by four other states. Four states administer and fund their programs through special or exceptional education, while Kentucky and Indiana place the program under the auspices of regular program curriculum and instruction. The use of competitive grants in Kentucky is similar to usage in two of the other states. One other uses discretionary grants, while the remaining use a higher weighting or dollar add-on method within their general education funding formula. Finally, in the area of teacher certification, four states have specific requirements for gifted/talented teachers. Currently, Kentucky does not, but certification requirements have been proposed as mandatory beginning in 1986.

Statutory Requirements

Over the past twenty-five years, Kentucky has demonstrated mixed attitudes toward education of exceptional or gifted and talented children. Between 1958 and 1962, statutory references to education of gifted and talented children tended to be indirect. In 1966 a school for economically deprived talented children was established; it was subsequently abolished in 1970. 1970 also brought a statutory mandate for local schools to provide special education programs for the intellectually gifted. The Bureau for Exceptional Children was created in 1972, with a Division of the Intellectually Gifted; however, in 1974

reference to the intellectually gifted was removed from the statutes relating to the Bureau for Exceptional Children.

Since 1978 the Kentucky General Assembly has authorized and funded an "experimental" program to develop a statewide gifted and talented program. Table 3 displays the changes in the statutory provisions governing this program occurring from 1978 through the 1982 legislative session.

Program Purpose and Intent

Kentucky's statutes governing gifted and talented education were enacted according to KRS 158.600:

> . . . to provide experimental or classroom unit programs of instruction for gifted and talented students . . . to assure a quality educational opportunity for appropriate students.

In the 1978 statute, KRS 158.610 stated that the objective of the program was "to encourage experimentation in quality programs and efficient use of educational resources."

Definition of Gifted and Talented Students

KRS 158.605 defines the appropriate students to be served as:

> . . . children who possess demonstrated abilities or measured potential that provides evidence of high performance capability in any of the following areas singly or in combination:
> (1) Intellectual ability;
> (2) Specific academic ability;
> (3) Creative or productive thinking;
> (4) Leadership ability; and
> (5) Visual and performing arts.
> Gifted and talented children are children who need special educational services in order to realize their potential.

The statutory definition for gifted and talented contained in KRS 158.605, adopted in 1978, was revised in 1980 by eliminating psychomotor ability as an area. The change was consistent with a similar change in the definition at the national level. An important addition in 1980 was the phrase "children who need special educational services in order to realize their potential."

TABLE 3

CHRONOLOGY OF KENTUCKY STATUTES GOVERNING GIFTED AND TALENTED PROGRAMS 1978-1982

Statutory Section	1978	1980	1982
Intent & Purpose KRS 158.600	Provide experimental programs of instruction for gifted and talented students.	Provide experimental or classroom unit programs.	Same
		State direction and implementation of statewide program is manifested in the biennial appropriation to finance such classroom units or experimental programs.	Same
Definition KRS 158.605	Children identified as being capable of high performance who have demonstrated achievement or potential ability in one or more areas of: intellectual ability; specific academic aptitude; creative or productive thinking; leadership ability; visual & performing arts; psychomotor ability.	Children who possess demonstrated abilities or measured potential that provides evidence of high performance capabilities in any of the following: intellectual ability; specific academic aptitude; creative or productive thinking; leadership ability; visual & performing arts	Same
		Gifted and talented are children who need special educational services to realize their potential.	Same
Experimental Programs/ Objective KRS 158.610	To encourage experimentation that may result in quality programs and a more efficient use of educational resources.	None stated.	Same

Statutory Section	1978	1980	1982
Experimental Programs/ Regulations KRS 158.610	State BOP shall adopt regulations for applying for funds.	BOE may authorize application for experimental programs in the event classroom units are not appropriated.	Same
		BOE may adopt regulations for operation of classroom unit programs or for applications for experimental program funds.	Same
Experimental Programs/ Selection KRS 158.610	State BOE shall determine annually applications to be funded.	Same provision "in the event" program units are not appropriated.	Same
Experimental Programs/ Reimbursement KRS 158.615	School district shall be reimbursed from funds appropriated up to amount approved by BOE	Same provision "in the event" program units are not appropriated.	Same
In-Service Training KRS 158.617	No provisions.	DOE shall provide in-service training in the operation of gifted and talented programs for teachers in districts which did not operate experimental programs during 1978-1980 school years or for teachers in districts allotted units during 1980-82 school years.	Same
		Shall be provided prior to the beginning of and during the 1980-81 and 1981-82 school years.	Same

Statutory Section	1978	1980	1982
Reports Required KRS 158.620	Within 90 days of end of fiscal year program has operated the local school district shall make a progress report to the BOE.	No later than 90 days after end of fiscal year the local school district shall submit an evaluation report to the BOE.	Same
	Within 90 days of end of fiscal year the Superintendent shall make, through cost benefit, an analysis and evaluation of all gifted and talented experimental programs operating under this statute.	Deleted	Deleted
	BOE shall supply the LRC, Governor and next regular session of the General Assembly: 1) a definition of gifted and talented appropriate to Kentucky; 2) a system of reporting including programs by county and congressional district; 3) information which evaluates effectiveness of the program; 4) ten-year plan for implementing a statewide program.	BOE shall supply to the LRC and the Governor each year: 1) a definition of gifted and talented appropriate to Kentucky; 2) a system of reporting program progress. 3) information which evaluates effectiveness of the program; 4) ten-year plan for implementing a statewide program, which shall be reviewed and updated each year.	Same

Program Approach

In 1978 the Kentucky General Assembly authorized the provision of experimental programs of instruction for gifted and talented students. A special appropiation outside of the regular education unit funding program was made. In 1980, HB 552 was introduced, which proposed the elimination of all references to experimental programs and the establishment of classroom progam units to be funded through the Commonwealth's Foundation Program. Amendments to the final version of HB 552, however, reinstated the references to experimental programs and the final appropriation of funds was again accomplished by a separate appropriation for the experimental program. No changes in the approach adopted in 1980 were made in the 1982 session of the General Assembly.

The statutes indicate one of two funding approaches to be taken, either an experimental program involving annual applications or classroom unit programs funded through the state's Foundation Program. According to KRS 158.610(1), the particular approach to be used is dependent upon the funding approach indicated in the biennial executive budget. As adopted, this budget did not provide funding for gifted and talented Foundation Program classroom units but appropriated funds for continuation of the experimental program first established in 1978.

Administrative Requirements

According to KRS 159.610, governing regulation of gifted and talented education programs, the Board of Education is empowered to adopt regulations to govern applications for experimental program funds. Funding for experimental programs is to be based upon annual applications (KRS 158.610), with reimbursement amounts determined by the Board (KRS 158.615).

In addition, KRS 158.617, created in 1980, requires that the Department of Education provide in-service training for teachers in districts which did not operate experimental programs in the 1978-79 and 1979-80 school years.

During the period of 1978-80, the Superintendent of Public Instruction was to perform a cost-benefit analysis and evaluation of all gifted and talented experimental programs operating under KRS 158.600. Local school districts were to submit a progress report within 90 days of the end of the fiscal year for which they received funding. The requirement for the local districts is still in effect. The cost-benefit study by the Superintendent was deleted from the statute in 1980.

Program Regulations

Kentucky statutes assign the State Board of Education responsibility for developing a Ten-Year Plan, adopting program regulations governing the fund application process and adopting regulations relating to the requirements to be met by local districts. The Ten-Year Plan developed in 1978 has not been revised, but the application and program regula-

tions adopted have changed since 1978. The program guidelines (and funding formula beginning in 1982) were incorporated into the Kentucky Administrative Regulations by reference. Provision of services for gifted students is now a requirement under Kentucky's school accreditation standards.

Ten-Year Plan

KRS 158.620 requires that the State Board of Education annually update and revise a Ten-Year Plan for Gifted and Talented Education. The original plan was developed in 1977 and covered the period 1978 through 1988. No new plan has been developed subsequently. According to the Assistant Superintendent for Instruction, "perpetual revision and updating were futile given the tentative nature of funding from one year to the next." Implementation of this plan has only been partially successful.

The 1978 Ten-Year Plan was developed by a task force of fifteen school administrators and teachers, assisted by six staff persons from the Department of Education. It is actually a mixture of administrative objectives and operational guidelines. Certain objectives and time frames established relate to the percentage of population served, availability of departmental services, establishment of program procedures, and development of certification requirements. Other aspects of the plan relate to the manner in which local districts are to apply for funding and operate their programs. These include such elements as development of a local plan, evaluation requirements, student identification procedures, student placement processes, personnel responsibilities and program operations.

Essentially this is an operational plan for funding and staffing. It falls short of being a policy plan (to guide the development of Kentucky's program) in two ways.

- It does not state the educational goals of the program in terms of purpose or accomplishments.
- It does not establish program objectives in relation to these goals.

Definition

The Kentucky Guidelines for Gifted Education operationally define gifted pupils as:

> . . . those who by virtue of outstanding capabilities are capable of high performance and who have been identified by professionally qualified persons. These are pupils 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.

These pupils are further defined as:

- possessing general intellectual ability and . . . consistently superior in mental capacity to others at the same age level;
- possessing specific academic aptitude . . . consistently superior in one or more academic areas than others at the same age level, who need

and can profit from advanced content studies of greater depth and more rapid acceleration;

- demonstrating exceptional ability in the area of creative thinking; and
- possessing exceptional ability in the visual and performing arts.

A similar definition was contained in the revised guidelines adopted in 1982.

Application Procedures

The Department of Education has required that normal applications (as required by statute) for new or continuing programs be submitted during the spring preceding the year of funding. These application forms have changed over the years. In addition, different forms were devised for currently funded versus new program requests. Beginning in 1980 requests and applications were submitted for the biennium period. Only continuation applications were submitted in the second year of the biennium. In 1982, planning grant application procedures were also established.

Since 1978 the department requests for information from gifted/talented funding applicants have become increasingly specific. The 1978-79 application was divided into eight sections:

- Statement of needs;
- Identification;
- Current offerings;
- Program description;
- Personnel;
- Support services;
- Evaluation; and
- Budget.

The major areas of interest addressed in the applications since 1978 remain unchanged. The questions are much more detailed, however.

In 1982, applications for new programs were not accepted. Applications were accepted for planning grants and for continuation of existing programs. The continuation application was a reformatting of the new program application to provide for easier review and consistent data collection. It eliminated the detailed information on program content; students participating; relationship of the objectives, activities and evaluation to each program goal; and the local education plan. Greater emphasis was placed on budgeting, personnel, class time, per grade enrollements, community awareness, identification of the handicapped, and local district resource commitments.

All applications required a description of program evaluation activities. However, neither the application nor Department of Education announcement letters required submission of the local district's evaluation results. Districts were informed that continuation of funding was dependent upon submission of an "acceptable evaluation report," this report being the "Summative Evaluation" program description questionnaire developed by the Department of Education.

Program Guidelines

The "Kentucky Guidelines for Gifted Education" were adopted in 1978, and revised by the State Board of Education in May of 1982. Their function and purpose, as stated by Mr. Raymond Barber, Superintendent of Public Instruction, is to provide the local school district with a framework for developing gifted and talented educational programs which meet the diverse needs and interests of Kentucky students. These are the official guidelines telling local districts how their gifted/talented programs should be developed.

Both the 1978 and 1982 Guidelines are essentially the same, with six similar sections: "Philosophy," "Definition," "Identification," "Program," "Personnel," and "Evaluation." Table 4 indicates the similarities and differences between the two sets of guidelines. The 1982 version has two additional sections, "Local District Commitment" and "Budgetary Considerations for State Funding." The 1982 version has as an appendix a document called "An Identification Model," prepared by Cornelia Tongue and Charmian Sperling. The identical document was referenced in the 1978 Guidelines but not given as an appendix.

TABLE 4

SIMILARITIES AND DIFFERENCES BETWEEN THE 1978 and 1982 VERSIONS OF THE KENTUCKY GUIDELINES FOR GIFTED EDUCATION

1978 Difference	SECTION	1982 Difference
G/T identification should be based on outstanding intellectual capabilities, creativity, and "talents."	**I. Philosophy** G/T programs should be significantly different than others; experiences should be challenging and diverse; students should be from all levels and groups in society; and educational experiences should be commensurate with ability.	In discussing G/T identification, the term "**artistic aptitude**" replaces "talents." This change may signal a desire to more specifically label or define the rather nebulous term "talents."

1978 Difference	SECTION	1982 Difference
	II. Definition G/T children because of ability are capable of high performance and would benefit from differentiated education; they demonstrate achievement in general intellectual ability, specific academic aptitude, creative thinking and problem solving and visual and performing arts.	G/T definition adds "leadership" as a capability of a G/T student. It requires the program to be "**qualitatively**" differentiated. It specifies that general intellectual ability and academic aptitude must be consistently superior and **"beyond the norm."**
"Group Intelligence Test Scores—Those with an IQ of 125 or better . . . however" "Achievement Test Scores—High ability is usually indicated by scores **at least two grade levels above that of the pupils in the 8th or 9th stanines or a percentile rating at or above 95.**" No mention of "Behavioral checklists" and "Other Criteria."	**III. Identification** Identification of students must be determined through multiple criteria; no single indicator can determine the selection of a student. General intellectual ability may be tested by IQ tests, achievement tests, school records and teacher observation.	("IV." Identification—rather than III). "Group Intelligence Test Scores—Those with an IQ in the **8th or 9th stanine."** "Achievement Test Scores—High ability is usually indicated by scores **in the 8th or 9th stanine.**" "**Behavioral checklists**"—utilization of checklists can assist teachers in behaviors associated with G/T students. "Other criteria"—schools using other than identified criteria must receive prior approval from KDOE. NOTE: KDOE mandates that **one** criterion be an IQ or a composite achievement test score in the 8th or 9th stanine as determined by district, state, or national norms. "Visual and Performing Areas," "**Behavior checklist**" and "**Other Criteria**" added here.
No mention of "intinerant program." No mention of "ongoing" training. No mention of training for coordinators.	**IV. Program** G/T programs can have various organizational structures, guidelines, detail program characteristics, resources, facilities, and staff development programs. Must have specific selection criteria and clearly stated goals, developmentally designed activities, qualitatively different experiences, teaching methods and time allotted. Instructional resources should be used to accommodate the differences in student abilities and interests. There should be adequate staff development and orientation of teachers in the program.	("III. Program" on 1982 document). "NOTE: Beginning 83-84 school year, districts will be limited to **identifying no more than 5% of the pupil population in grades served by the program."** Concerning **Facilities,** a new provision was added—"An itinerant program for which there is no 'home base' is **not recommended.** Concerning **Staff Development,** new provisions require "adequate **'ongoing'** staff development of teachers **and 'educational coordinators'."**

1978 Difference	SECTION	1982 Difference
No mention of "ongoing" orientation and staff development in school districts.		"**Professional**" staff of each "**district**" school should be provided orientation and **staff development should be ongoing as appropriate.**
	V. Personnel	
Special consideration "should" be given in selecting these persons . . .	Professional staff involved in the program should be stated with certification and specific responsibilities. The local board should designate a coordinator who must ensure all guideline compliance and evaluation requirements, and be involved in personnel selection. Teachers should be appropriately certified for age and subject, show a willingness to work with G/T, be aware of current trends and be trained in G/T.	Special consideration "**must**" be used in selecting these persons and their amount of involvement and specific responsibilities should be stated. The local board of education "**upon recommendation of the superintendent**" shall designate a coordinator . . . "**who shall allocate no less than 25% of his time . . .**" Added responsibilites: ". . . **acting as the liaison between the school district and the Kentucky Department of Education . . . may teach in the program.**"
	VI. Evaluation	
"Summative evaluation **may** include such aspects as: (1) Student progress (2) Student attitude (3) Program teacher's response (4) Parental response (5) Cummunity response (6) Cost effectiveness (7) Faculty attitude (8) Documentation of activities (9) Products developed"	A comprehensive evaluation should be based on measurable objectives and continuous evaluation of objectives should be done as program is operating.	"Summative evaluation **should** include such aspects as: (1) Student progress (2) Student attitude (3) Program personnel (4) Program curriculum (5) Community involvement (6) Cost effectiveness (7) Incorporation of G/T into regular program (8) Future programmatic directions" NOTE: 1982 Summative reports must be submitted by district at end of school year.
VII—not mentioned previously.		**VII. Local District Commitment** Each local district board of education must adopt and record into minutes a policy of support of district-wide gifted education, grades 1-12. Demonstrate financial and in-kind support of G/T.
VIII—not mentioned previously.		**VII. Budgetary Considerations for State Funding** The grant unit "equivalency formula" must be clearly stated. Districts receiving in excess of $10,000/year must allocate 75% to salaries.

In summary, the following additions or modifications were made to the original document:

- requiring achievement or I.Q. testing as one criterion in determining selection and requiring that the test scores fall in the 8th or 9th stanine;
- mandating that no more than five percent of the pupil population in grades served be identified as gifted;
- requiring training to be ongoing;
- requiring the coordinator spend no less than 25 percent of his time on the project; and
- requiring that summative reports be submitted by districts at the end of the year to the Department of Education.

Both the 1978 and 1982 versions were a mixture of requirements ("must" or "shall" statements) and suggestions ("may" or "should" statements). The required features of a program, as found in the 1982 version, are listed in Table 5. They include identification and selection procedures, goals, program activities, duration, evaluation, supplies, staff development, personnel and local board policies. For the most part these requirements are general statements which lack an objective measurement component for determining compliance. At most they are general rules for the development of a program which leave the local district with wide discretion as to what constitutes compliance.

TABLE 5

1982 KENTUCKY GUIDELINES FOR GIFTED EDUCATION

Content Area	Requirement
Programs	Must include specific selection and identification procedures consistent with those outlined in the Guidelines. Must have clearly stated goals to meet needs of identified children. Must include developmentally-designed activities qualitatively different from and complementary to the regular classroom. Must include teaching methods and techniques designed to accomplish goals and meet needs. Sufficient time must be allotted to ensure significant impact. Must provide for a systematic plan for evaluation of pupil performance and program operation.
Staff Development	Must provide adequate and ongoing training for coordinators and program teachers. Must provide orientation for entire professional staff.
Identification	Selection of pupils must be determined through the use of multiple criteria. For program of general intellectual ability, must use one criterion involving an I.Q. or composite achievement score in the 8th or 9th stanine, according to district, state or national norms. Programs emphasizing specific academic ability, one criterion must be subject-oriented score in 8th or 9th stanine. Programs emphasizing creativity, one criterion must be an objective measurement of outstanding creative ability. Programs emphasizing visual or performing arts, one criterion must be objective measure of outstanding artistic ability. Final selection is to be through a comprehensive assessment including: performance, interests and behavior.
Personnel	Coordinators must designate a minimum of 25% of their time to program. Coordinators shall be involved in selection of program personnel. Teachers must have appropriate certification for ages or subjects in program.
Evaluation	Summative evaluation report must be submitted to the Department of Education at the end of each year.
District Commitment	Must have record in board minutes of policy supporting program.
Budget	Must serve 75 pupils one day per week or equivalent. Can identify no more than 5% of pupil enrollment in any one grade. Districts receiving more than $10,000 must allocate 75% to salaries of teachers and other direct program personnel.

CHAPTER IV

PROGRAM FUNDING AND DEVELOPMENT

Kentucky's experimental gifted and talented program has been funded since 1978 with annual increments in the amount. Appropriations made have been designated specifically for this program but have not specified the budgeting of these funds for administration, program grants, evaluation or training. Budgeting has been left to the discretion of the Department of Education. The statutes provide for either competitive grant distribution or classroom unit funding, depending on the appropriation. To date, monies have not been appropriated for classroom unit funding but for experimental programs.

Biennial appropriations from the Commonwealth's General Fund have been increased each year of the program from $.6 million in FY 1978 to $5.1 million in FY 1984. The number of districts involved has increased from twenty-three in FY 1978 to, potentially, 171 in FY 1984. Student enrollment has grown from 6,804 in FY 1978 to 13,679 in FY 1983.

Appropriations and Expenditures

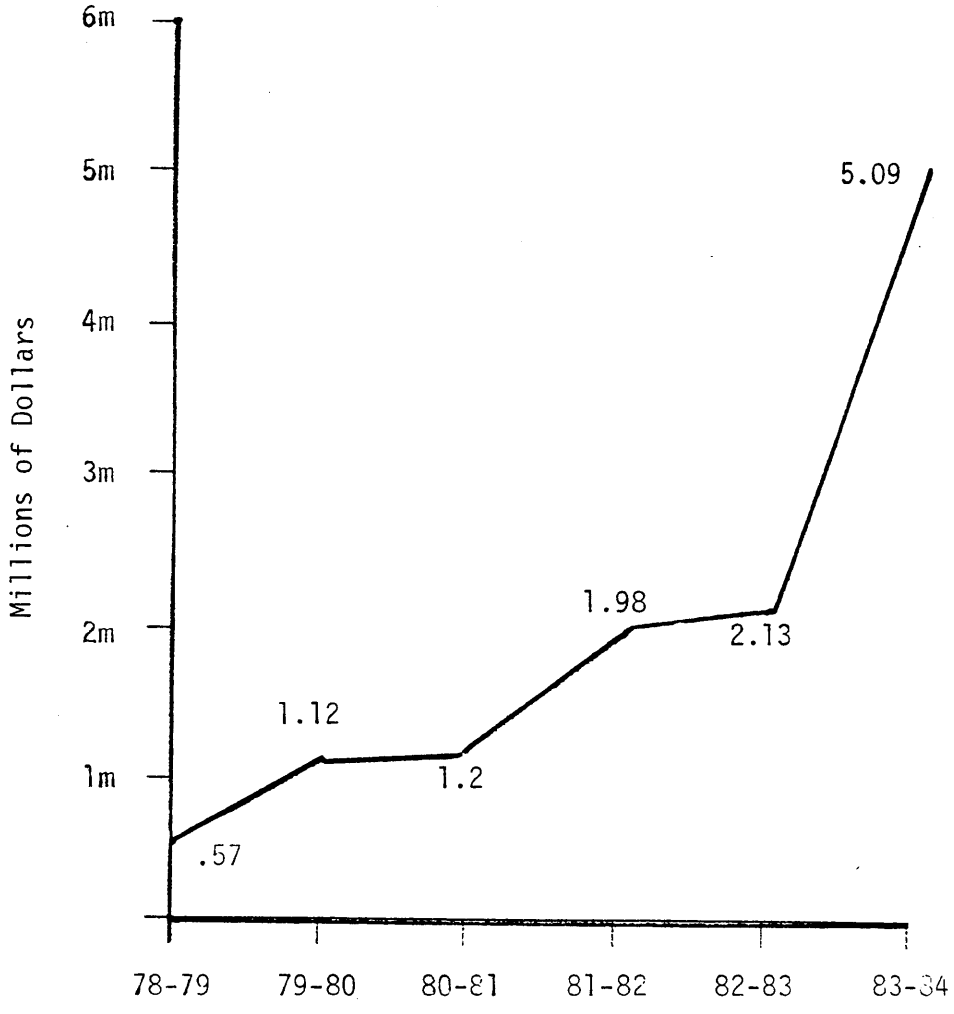
Appropriations for experimental gifted and talented programs have increased greatly since 1978. Less than five percent of funds appropriated have been expended for administrative purposes. The remainder has been allocated for program grants. In 1982, the Board of Education changed the program from a competitive grant program to a classroom unit program. The per unit amount and the limit of three units per district were determined by the state Board's desire to provide all 180 of the state's local districts with program funds and the amount of funds appropriated by the General Assembly.

Appropriations and Distribution of Funds

Appropriations for gifted and talented education were modest in 1978 and 1980, but were given a major increase in 1982. As indicated in Figure A, appropriations were increased over two hundred percent for the 1982-84 biennium.

FIGURE A

APPROPRIATIONS FOR GIFTED PROGRAM
1978-84



Expenditure of Funds

According to the Department of Education, a minimum of administrative expenses have been charged to the program's allotment, in order to maximize the available grant money. Table 6 indicates the amount of monies credited to the program allotment for program grants and administration from 1978 through 1983.

Administration. The "Administrative Services" category includes the salary for one full-time program manager in the Department and such necessary administrative expenses as travel, postage, supplies and training. These "Administrative Services" expenditures represented 4.5 percent of the program's appropriation for 1978-80, 4.17 percent in 1980-82, and 2.07 percent in 1982-84.

TABLE 6

GIFTED PROGRAM ADMINISTRATIVE AND GRANT EXPENDITURES
1978-1984

Fiscal Year	Appropriation	Program Grants	Planning Grants	Administrative Services[a]
1978-79	$ 565,700	$ 532,296	—	$33,404
1979-80	1,118,600	1,076,500	—	42,100
1980-81	1,196,900	1,134,000	—	62,900
1981-82	1,980,700	1,911,000	—	69,700
1982-83	2,131,000	1,911,000	$145,500	74,400
1983-84[b]	$5,087,000	$5,011,500	NA	75,500

[a]Includes personnel, travel, supplies, and sponsored workshops.
[b]Budget estimate.
NA—Not Available.

SOURCE: Appropriations Acts and grant approvals were used to calculate miscellaneous expenditures. Accurate program accounting reported by the Bureau of Instruction for 1981-84 only.

Professional Development. According to Kentucky Statutes, the Department is responsible for providing professional development activities. The Department's Program Director for the G/T program indicates that several types of activities are conducted, which include local school personnel and parent training sessions, co-sponsoring of statewide program coordinators and teachers conferences, and a monthly newsletter. From 1981 through

1983 annual statewide meetings for local program coordinators were held by the Department, at a cost of $2,261 for 1981, $2,500 for 1982, and $2,800 for 1983. The Department also co-sponsored three annual statewide Kentucky Association for Gifted Education (KAGE) conferences during this period, at a cost of $2,000 for 1981, $3,000 for 1982, and $4,000 for 1983.

In addition, the Program Director reports eighty-nine local district in-service sessions were conducted for 3,145 personnel from January, 1978 through December, 1980; ten regional sessions involving 500 school personnel were also conducted, as well as one four-day and two one-day statewide workshops. During this period, one awareness workshop was held for seventy-five parents. For FY 1981, thirteen in-service training sessions were held, involving 650 teachers; five awareness sessions were held, with 375 parents attending; one statewide coordinators meeting was held, with approximately sixty-five persons attending; and eight workshops were held at various statewide organization meetings. Finally, in FY 1983, two teacher in-service sessions were held; one parents session was conducted; one statewide coordinators meeting was held; and workshops were conducted at eight statewide organization meetings.

Experimental Program Grants

Expenditures for actual program grants represent the bulk of the monies spent. (See Table 7 for programs funded from 1978 to 1982.) These funds provided grants for fifty-three local programs in 1978-80, sixty-five local programs in 1980-82, and sixty-five local programs in 1982-83. In 1982-83, an additional 106 districts received planning grants ranging from $850 to $2,020. These districts are listed in Table 8.

The Department's method of allocating grant monies has changed considerably since 1978. In 1978 and 1979, districts submitted a program proposal and grant amount request. Since the amounts requested were over twice the available funds, the Department reduced the grant requests to a level achievable with available funding. From 1980 on, the Department established a unit funding method with a maximum limit of three units per district. This unit amount was designed to provide a teacher's salary and a small amount for supplies. The expectation, as established in the Department's guidelines, has been that local districts will demonstrate their commitment by contributing their own funds and in-kind services to the program.

1978-80 Grant Process. HB 576, passed in the 1978 Regular Session, established the original experimental program for gifted and talented education. Funding was appropriated for $565,700 in the 1978-79 school year and $1,118,600 in the 1979-80 school year. This funding was to be allocated by the Board of Education through annual applications from local districts in accordance with procedures adopted by the State Baord. The Board of Education set a limit on annual grants for 1978-79 and 1979-80 at $50,000 per district.

TABLE 7

DISTRICTS RECEIVING GIFTED AND TALENTED PROGRAM GRANTS
1978 - 1982

District	Funding Amount				
	1978	1979	1980	1981	1982
PIKE	$17,230	$24,000	$36,000	$58,500	$58,500
PULASKI	$33,381	$32,000	$36,000	$58,500	$58,500
ROWAN	$17,494	$20,000	$18,000	$39,000	$39,000
RUSSELLVILLE	$22,140	$21,000	$18,000	$19,500	$19,500
SCOTT	.	$17,000	$25,200	$39,000	$39,000
SHELBY	$0	.	$18,000	$19,500	$19,500
SPENCER	$0	$13,000	$12,720	$16,120	$16,120
TRIGG	$0	$14,000	$18,000	$27,300	$27,300
WARREN	$0	$15,000	$36,000	$39,000	$39,000
WILLIAMSTOWN	$0	$0	$0	$0	$5,200
ASHLAND	$2,000	.	$0	$0	$1,620
BARDSTOWN	$13,000	$0	$0	$0	$1,250
ELIZABETHTOWN	$0	$20,000	$0	$0	$1,250
MAYFIELD	$0	$9,000	$0	$0	$1,250
SCIENCE HILL	.	$4,000	$0	$0	.
WHITLEY	.	$9,000	$0	$0	$1,620
ALLEN	$18,000	$0	.	.	$1,250
HARDIN	$17,000	$21,000	$36,000	$39,000	$39,000
HARLAN	.	$25,000	$18,000	$39,000	$39,000
HARRODSBURG	.	.	.	$15,600	$15,600
HENDERSON	$0	$30,000	$18,000	$19,500	$19,500

Table 7
Continued

District	Funding Amount				
	1978	1979	1980	1981	1982
HOPKINS	$0	$13,000	$18,000	$39,000	$39,000
JEFFERSON	$38,000	$38,000	$36,000	$58,500	$58,500
JESSAMINE	.	$12,500	$18,000	$19,500	$19,500
KENTON	$0	$35,000	$36,000	$39,000	$39,000
LAUREL	$0	$13,000	$18,000	$39,000	$39,000
LESLIE	$37,000	$38,000	$36,000	$39,000	$39,000
LETCHER	.	$0	$18,000	$39,000	$39,000
LINCOLN	$17,000	$34,000	$18,000	$39,000	$39,000
LYON	.	$0	$0	$13,000	$13,000
MADISON	$0	$13,000	$18,000	$39,000	$39,000
MARION	.	$0	$0	$19,500	$19,500
MASON	.	$0	$0	$19,500	$19,500
MAYSVILLE	$0	$10,000	$7,200	$12,220	$12,220
METCALFE	.	$9,000	$0	$9,880	$9,880
MONTGOMERY	$0	$0	$25,200	$36,140	$36,140
MURRAY	$21,150	$22,000	$18,000	$19,500	$19,500
OLDHAM	$38,000	$41,000	$36,000	$39,000	$39,000
OWEN	$19,464	$20,000	$18,000	$19,500	$19,500
OWENSBORO	.	$19,000	$18,000	$39,000	$39,000
OWSLEY	$0	$14,000	$10,800	$15,860	$15,860
PADUCAH	$38,000	$38,000	$36,000	$58,500	$58,500
PAINTSVILLE	$16,117	$32,000	$8,880	$9,880	$9,880
PARIS	$0	$14,000	$14,640	$18,200	$18,200

Continued

District	Funding Amount				
	1978	1979	1980	1981	1982
BELLEVUE	.	.	$0	$9,750	$19,500
BEREA	$0	$25,000	$18,000	$19,500	$19,500
BOONE	$37,000	$42,000	$36,000	$58,500	$58,500
BOURBON	$0	$0	$0	$9,880	$9,880
BOWLING GREEN	$7,500	.	$0	$45,240	$45,240
BOYD	.	$9,000	$18,000	$19,500	$19,500
BOYLE	.	$9,000	$12,960	$16,900	$16,900
BULLITT	$0	$14,000	$18,000	$39,000	$39,000
CALDWELL	.	$0	$18,000	$30,940	$30,940
CALLOWAY	$0	$25,000	$18,000	$39,000	$39,000
CAMPBELLSVILLE	.	$21,000	$18,000	$19,500	$19,500
CLINTON	.	$0	$0	$19,500	$19,500
COVINGTON	$0	$17,000	$18,000	$39,000	$39,000
CRITTENDEN	.	$20,000	$18,000	$19,500	$19,500
DANVILLE	$0	$0	$9,120	$19,500	$19,500
DAVIESS	$37,500	$42,000	$54,000	$58,500	$58,500
DAWSON SPRINGS	$0	$0	$0	$9,880	$9,880
ESTILL	$0	$14,000	$18,000	$39,000	$39,000
FAYETTE	$38,000	$41,000	$54,000	$58,500	$58,500
FLEMING	.	$20,000	$12,480	$15,860	$15,860
FLOYD	$0	$0	$18,000	$39,000	$39,000
FORT THOMAS	$18,320	$25,000	$28,800	$39,000	$39,000
FRANKLIN	$20,200	$40,000	$36,000	$58,500	$58,500
GALLATIN	.	.	$0	$7,800	$7,800
GARRARD	.	$0	$0	$19,500	$19,500
GRANT	$8,800	$14,000	$12,000	$15,600	$15,600
GREENUP	.	.	$0	$19,500	$19,500

TABLE 8

DISTRICTS RECEIVING PLANNING GRANTS FOR GIFTED AND TALENTED PROGRAMS 1982

District	Amount	District	Amount
Adair County	$ 1,250	Edmonson County	$ 1,250
Allen County	1,250	Elizabethtown Ind.	1,250
Anderson County	1,250	Elliott County	1,250
Ashland Ind.	1,620	Eminence Ind.	850
Augusta Ind.	850	Erlanger-Elsmere Ind.	1,250
Ballard County	1,250	Fairview Independent	1,250
Barbourville Ind.	850	Frankfort Independent	850
Bardstown Ind.	1,250	Fulton County	1,250
Bath County	1,250	Glasgow Independent	1,250
Beechwood Ind.	850	Graves County	1,620
Bell County	1,620	Grayson County	1,620
Bracken County	1,250	Greenville Ind.	1,250
Breathitt County	1,620	Hancock County	1,250
Breckinridge County	1,250	Harlan Independent	1,250
Burgin Independent	850	Harrison County	1,250
Butler County	1,250	Hart County	1,250
Campbell County	1,620	Hazard Independent	1,250
Carlisle County	1,250	Henry County	1,250
Carroll County	1,250	Hickman County	1,250
Carter County	1,620	Jackson County	1,250
Casey County	1,250	Jackson Independent	850
Caverna Independent	1,250	Jenkins Independent	1,250
Central City Ind.	1,250	Johnson County	1,620
Christian County	2,020	Knott County	1,620
Clark County	1,620	Knox County	1,620
Clay County	1,620	Larue County	1,250
Cloverport Ind.	850	Lawrence County	1,250
Corbin Independent	1,250	Lee County	1,250
Cumberland County	1,250	Livingston County	1,250

TABLE 8
Continued

District	Amount
Logan County	$ 1,250
Ludlow Independent	1,250
Magoffin County	1,620
Marshall County	1,620
Martin County	1,620
Mayfield Ind.	1,250
McCracken County	2,020
McCreary County	1,620
McLean County	1,250
Meade County	1,620
Mercer County	1,250
Middlesboro Ind.	1,250
Monroe County	1,250
Monticello Ind.	850
Morgan County	1,250
Muhlenberg County	1,620
Nelson County	1,620
Newport Independent	1,620
Ohio County	1,620
Pendleton County	1,250
Perry County	1,620
Pikeville Ind.	1,250
Powell County	1,250
Providence Ind.	850
Raceland Ind.	850
Richmond Ind.	$ 850
Robertson County	850
Rockcastle County	1,620
Russell County	1,250
Russell Ind.	1,620
Silver Grove Ind.	850
Simpson County	1,250
Somerset Ind.	1,250
Southgate Ind.	850
Taylor County	1,250
Todd County	1,250
Trimble County	1,250
Union County	1,250
Walton Verona Ind.	850
Washington County	1,250
Wayne County	1,250
Webster County	1,250
West Point Ind.	850
Whitley County	1,620
Williamsburg Ind.	850
Wolfe County	1,250
Woodford County	1,620

All local school districts were notified of the availability of the grants and provided with the procedures and requirements for submission. Eighty-two local districts submitted applications in 1978; twenty-three were chosen for funding. One hundred and three districts applied in 1979, and fifty were chosen for funding (this included twenty districts funded in 1978). 1978 programs were chosen by a five-member review team composed of personnel from five school districts. Criticism of this approach led to a revised procedure for 1979 involving the use of twenty-one readers experienced with gifted and talented education from the states of Ohio, Indiana, Virginia, North Carolina, Tennessee, Missouri, and West Virginia. All readers were screened to ensure they had no involvement with local Kentucky school districts.

1980-82 Grant Process. The 1980 General Assembly, considered a proposal, HB 552, to eliminate the experimental designation of the program and to establish funding on a unit formula basis. The final approved version of HB 552, however, maintained the experimental designation and appropriated monies for annual competitive grants, not for classroom unit funding. The State Board of Education, however, established a funding formula for competitive grants based upon a unit approach, with one unit equal to $18,000 in 1980-81, and $19,500 in 1981-82. A unit was based on the equivalent of one teacher serving seventy-five students the equivalent of one day per week. The number of units a district could receive was limited to three.

Grant applications were read and ranked by twelve out-of-state readers, according to guidelines established by the Department of Education. Ninety-five applications were received and reviewed. No priority was given to districts with grants in the previous years of the program. The district applications were ranked according to the total points scored from three readers. The Board of Education chose the top fifty districts (a total of sixty-three grant units) for funding in 1980-81 and the top sixty-five districts (a total of ninety-eight grant units) for funding in 1981-82. For the fifty districts funded in 1980-81, 1981-82 funding was dependent upon their submitting a continuation application and a satisfactory evaluation report. All districts funded for 1980-81 received funding again in 1981-82.

1982-84 Biennium. No statutory changes regarding the experimental program designation or the statutory method of funding occurred in the 1982 General Assembly. However, a significant increase in the amount of monies appropriated did occur. Two and one-tenth million was appropriated for 1982-83 and $5.1 million for 1983-84.

All sixty-five districts funded in 1981-82 were eligible for continuation grants equal to their 1981-82 grant amount, and all received these for 1982-83. Districts without program grants were eligible for planning grants to plan for a 1983-84 program. One hundred and six of the 115 eligible districts applied for and received planning grants, according to the following formula.

1981-82 Adjusted Average Daily Attendance	Planning Grant
5,800 and above	$2,020
5,799 to 2,750	1,620
2,749 to 750	1,250
749 and below	850

For the 1983-84 school year the 171 districts with program grants or planning grants are eligible to receive program grant units according to a new formula, based on a district's 1981-82 adjusted average daily attendance, provided it submits an application and an acceptable evaluation report to the department. This formula is:

1982-82 Adjusted Average Daily Attendance	Number of Units
5,800 and above	3
5,799 to 2,750	2
2,749 to 750	1
749 and below	0.5

An exception to this formula was made in the case of seven districts that lost funding under this approach. The Superintendent of Public Instruction restored the funding level of these districts to their 1982-83 level. This amendment ranged from a low of $130 to a high of $19,500. These monies came from the surplus generated from the nine districts which did not apply for planning grants in 1982-83 and are not eligible for 1983-84 program grants.

The nine districts which did not apply for a planning grant in 1982-83 will be eligible only for a planning grant in the 1983-84 school year.

Programs

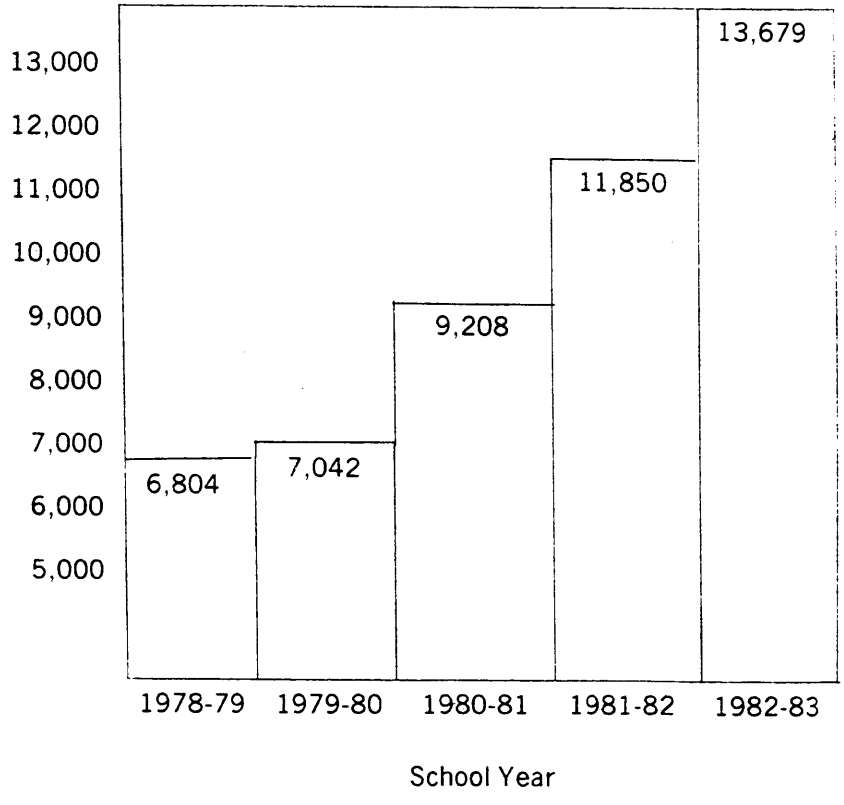
Monies appropriated for the state's experimental gifted and talented program have been small compared to the state's overall education budget. In the 1978-80 biennium the appropriation amounted to only .1 percent of the state's general fund appropriation for education, while in the 1980-82 and 1983-84 bienniums it amounted to .18 percent and .36 percent respectively. The state's **Ten-Year Plan for Gifted and Talented Education** called for the program to serve three percent of the state's pupils in 1980-82 and five percent in the 1982-84 biennium. The monies appropriated amount to $60 and $108 per student (based on

three percent served) in 1980-81 and 1981-82, and $61 and $156 per student (based on five percent served) for 1982-83 and 1983-84.

Students Served

Since the first state-assisted program began in 1978, gifted education programs have served more students each year (see Figure B). The Department of Education reported that in 1978-79, 6,804 pupils were served in G/T programs. This number grew to 7,042 in 1979-80, 9,208 in 1980-81, and 11,850 in 1981-82. Program applications for 1983-83 indicate that 13,679 students may be served during that year. Based upon Kentucky school membership in September, 1982 (651,084), three percent served would be approximately 19,532, while five percent would be 32,554.

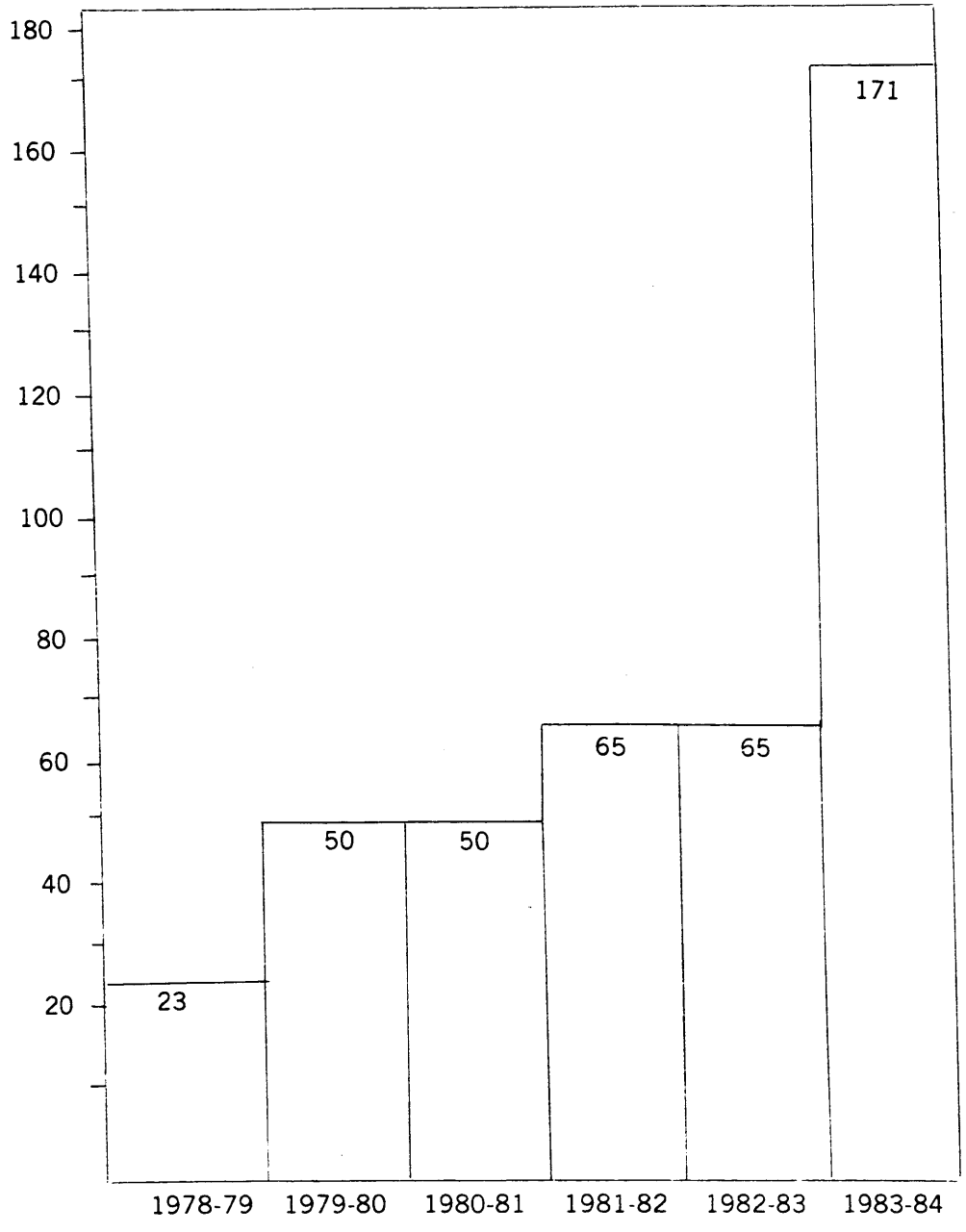
FIGURE B
ENROLLMENT OF PUPILS
IN GIFTED EDUCATION
FY 1978 - FY 1982



Districts Served

The number of districts funded for G/T programs has grown from twenty-three in 1978 to sixty-five in 1982 (see Figure C). In the 1983-84 school year, 171 districts are eligible and are expected to apply and receive funding.

FIGURE C
NUMBER OF DISTRICTS WITH STATE-FUNDED
GIFTED AND TALENTED PROGRAM
FY 1978 - FY 1983



Types of Programs

As the number of districts offering gifted programs has increased some trends in organizational preference are discernable (see Table 9). Pull-out programs remain the most popular approach to serving gifted students. "Special activities within class" is the only major organizational arrangement that has dramatically decreased in popularity. It was the second most frequently cited approach in 1980 but fell to fifth by 1982. Advanced classes, mentorships, and independent study remain popular approaches to serving G/T students, ranking second, third, and fourth in frequency.

The majority of programs are concentrated on academic areas. General intellectual or cognitive development is offered in the majority of programs. Specialty classes and enrichment activities are also offered frequently. Slightly more than one-fourth of the programs surveyed were emphasizing art development.

TABLE 9

FREQUENCY AND TYPE OF GIFTED AND TALENTED PROGRAM STRUCTURES
FY 1980—FY 1982

	TOTALS		
	1980	1981	1982
Pull-Out	98	137	132
Advanced Classes	63	88	70
Mentorships	42	58	55
Independent Study	48	62	42
Special Activities	70	106	28
Trips	7	8	7
Specialty Classes	9	12	14
Developmental Activities	8	1	2
Parent Community Education	0	0	0
Support Services	1	1	2

SOURCE: Program Review and Investigations Staff Review of Local District Grant Applications.

CHAPTER V

EFFECTIVENESS OF THE STATE'S GIFTED AND TALENTED PROGRAMS

The appropriation for experimental gifted and talented programs by the 1982 General Assembly was made in conjunction with a request for the Program Review and Investigations Committee to evaluate the operation of the program and to advise the General Assembly as to its future. The basis of this request was the fact that, while experimental in origin, the program was moving into its third biennium, its funding was increasing dramatically, and pressure was being applied to include the program within the regular education funding formula.

Despite the requirement that the grant programs be evaluated by the state Department of Education (DOE) and the local district grantees, no meaningful evaluation of the programs has been conducted by the DOE and evaluation efforts by local grantees are varied and are based primarily on the subjective perceptions of staff, students and parents. The DOE orientation has been primarily to fund as many programs as possible. Local districts have been given wide discretion in the programs they use and minimal effort has been made to systematically study programs to identify effective and cost-efficient approaches.

The DOE has only one full-time person staffing the program, thus limiting its ability to provide assistance and consultation. Surveys of G/T program coordinators and planning grant coordinators indicate that both share common areas of need for assistance from the DOE, including successful program approaches, training, evaluation and identification. Although the DOE has provided in-service training to existing program staff, these program staff still feel more is necessary. Furthermore, training is a major need for the new programs being funded in 1984.

Emphasis in this chapter is on the local districts' ability to assess student needs and to meet them. In summary, the student selection processes used are multi-dimensional identification methods, varying from district to district. Generally, the Comprehensive Tests for Basic Skills (CTBS) scores, other achievement scores and teacher perceptions are key features. The population selected varies from the mentally superior to the above average student, depending on funding available and type of program orientation.

The resource room pull-out approach is the most popular orgnanizational structure, followed by advanced classes. The former was most common in elementary schools and the latter in high schools. The degree to which other approaches were used during this experimental phase appears to be very limited. Evidence supporting the effectiveness or cost-efficiency of these approaches has not been gathered.

Program activities are quite diverse and represent a gamut of interests, teaching

techniques and learning objectives. Most common areas of emphasis are cognitive development (stressing thinking and problem solving skills) and specialty classes not available to the general student body.

Evaluations by district personnel stressed student performance in the gifted classroom and overall acceptance and agreement by school officials, parents, and teachers that the gifted/talented program is a useful addition to the school's course offering. Neither cost-benefit analysis nor objective evaluations are available.

Local District Program Evaluation

Local districts receiving funding through the state's experimental gifted and talented program are required by statute and regulation to evaluate their programs and report the results annually. The 1978 guidelines adopted by the Board of Education outlined the type of evaluation data that the districts should consider. The 1982 guidelines made the gathering of such data mandatory. Local districts were required by the Department of Education to submit an evaluation report annually. A consistent report form had been established by the Department.

To gather data about, and to review the evaluation activities on, the performance of programs, staff reviewed the reports submitted to the Department of Education. In addition, sixteen districts were visited and questioned about their evaluations.

Reporting

Staff of the Program Review and Investigations Committee undertook a review of all local district gifted and talented program files in the Department from 1978 to 1983. The review indicated that all districts receiving grants have complied with the reporting requirements of the Department of Education. Reports submitted prior to the "1980-81 Summative Evaluation" document varied between districts and years in their form and content.

The use of the Department's "Summative Evaluation" form standardized reporting but failed to elicit the detailed reporting of performance and program assessment results found in the earlier unstandardized reports. Our field visits discovered only two districts that produced a formal evaluation document. Three presented a verbal report to their local board and three presented a brief written summary to their board. In ten districts, the "Summative Evaluation" was the main reporting method.

Evaluation Activities

As part of the present study, sixteen districts were visited and queried about their evaluation procedures. The results of these visits failed to produce any useable evaluation data on program effects gathered by the local districts.

The visits indicated that the evaluation procedures being conducted by the local districts are methodologically weak, and rely heavily on subjective information. The pro-

grams do evidence some formalized evaluation processes and formal attempts at documenting pupil and program performance and parent, pupil, and teacher assessments of the program operations. None evidence reliable program evaluation methods involving comparisons to other approaches or regular classroom student performance which would allow a valid evaluation of the programs' effects. Some do attempt to measure pre- and post-performance of students in the program to determine changes that may have occurred. Nine of the sixteen evaluations were conducted informally and aimed at obtaining opinions as to how the program should operate.

Table 10 indicates the methods used by these districts to evaluate the performance of their local programs. As indicated, less than half include assessment of changes in pupil performance. The most common methods are subjective opinions; half are collected through some formal method involving a questionnaire or meeting, while the remaining rely on informal conversations or feedback obtained through periodic discussions.

TABLE 10

METHODS FOR EVALUATING PROGRAMS
AS REPORTED BY SIXTEEN FIELD VISIT DISTRICTS

Method	No. of Districts Using Method
Pre-Post Comparisons/Achievement Scores	6
Pre-Post IQ Comparisons/IQ Scores	3
Pre-Post Comparisons/Grades	3
Pre-Post Comparisons/Content Tests	2
Completed Work	1
Comparison to Regular Class	0

Method	Formal	Informal
Subjective G/T Teacher	6	10
Subjective Coordinator/Supervisor	9	7
Subjective Principal	3	12
Subjective G/T Parent	5	9
Subjective Superintendent	3	9
Subjective Regular Teacher	4	7
Subjective G/T Student	3	6

SOURCE: Program Review staff field visits.

The limited use of objective program evaluation was also noted in the coordinators' questionnaire responses. As seen in Table 11, the majority of districts use subjective teacher, parent, and student reporting. Actual changes in behavior, attitude and cognitive growth as indicators of goal achievement and program success were not frequently included.

TABLE 11

COORDINATORS' REPORT OF TYPES OF PROGRAM EVALUATIONS USED

EVALUATION METHOD	Used	NOT Used
Student self-reports	41 (91%)	4 (9%)
Teacher reports	39 (87%)	6 (13%)
Parent reports	32 (71%)	13 (29%)
Project completion	31 (69%)	14 (31%)
Student program evaluation	30 (67%)	15 (33%)
Pre-post achievement test scores	21 (47%)	24 (53%)
Self-concept scale	17 (38%)	28 (62%)
Attitude change scores	12 (27%)	33 (73%)
Pre-post behavior rating	7 (16%)	38 (84%)
Post-only test scores	6 (13%)	39 (87%)
Control group comparison	6 (13%)	39 (87%)
Criteria reference test	5 (11%)	40 (89%)
Post-only behavior rating	2 (4%)	43 (96%)
Other	6 (13%)	39 (87%)

SOURCE: Program Review staff survey of local district gifted program coordinators.

Evaluation Reports and Usage

Although all of the districts indicate that they have some type of evaluation, only two of sixteen produce any formal evaluation report other than the Department's "Summative Evaluation." Those districts which had produced extensive documents prior to the "Summative Evaluation" indicated that they felt that the "Summative Evaluation" made these no longer necessary. If they produced any report, it was a simple descriptive report for their local board.

When staff asked the field visit districts what impact the evaluation results had on their program, ten stated that they had caused minor improvements, three indicated little impact and three said that major program changes occurred.

Effectiveness of Local District Programs

As discussed in Chapter II, the educational needs of the gifted and talented student differ in certain ways from those of the other classroom students. Gifted and talented children are usually identifiable by their capability to perform above their peer group in intellectual, creative, or artistic ways, or in leadership. The term "giftedness" is often applied to those children with superior ability, the upper two or three percentile, having IQ scores in the range of 125 or above. "Talented" students may not necessarily exhibit superior mental ability, but instead unique or advanced academic, creative, or artistic capabilities in certain areas.

The need of these students, as described by the literature and educators surveyed in the Commonwealth, is to be challenged to reach their cognitive potential, to have an enriched academic experience and to develop their personal, social, communication and leadership skills. Meeting these students' needs, then, is considered the goal of the program. Major approaches to the accomplishment of this goal have included homogenous grouping, acceleration, and enrichment.

The "Kentucky Guidelines for Gifted Education" require the programs to have certain characteristics as a means of goal accomplishment. These include specific multidimensional student identification methods; developmentally-designed activities; qualitatively differentiated activities; teaching methods and techniques designed to accomplish the goals; sufficient time so that the content will have a significant impact on the pupil; and a systematic plan for evaluating the pupil and the program.

Meeting the Needs of Gifted and Talented Students

Neither the DOE nor the local districts have conducted sufficient evaluations to determine if the needs of gifted and talented students are being met. Districts visited do indicate they are serving the needs of these students within the resources available. The professional educators groups and parents groups were surveyed about their perception of the effectiveness of these programs. Their responses are summarized below.

All of the organizations responding felt that the G/T programs were operating effectively. One organization, the Kentucky Parent-Teachers Association (KPTA), was somewhat cautious in its remarks, stating that the program's effectiveness varied considerably from district to district, and that "the programs are more effective in urban areas or large consolidated school systems where advocacy groups are active." However, generally there was a broad endorsement of the programs and the ways in which they have attempted to address the needs of G/T students. Few of the Kentucky School Boards Association (KSBA) members responding indicated that the programs in place were ineffective or improperly addressing the needs of the G/T student. However, most respondents indicated that their district's program could improve, even though they were presently headed in the right direction. Often, members indicated that improvements are dependent on increases in funding or further guidance.

The Kentucky Association for Gifted Education's (KAGE) response was enthusiastic in its support of the program and gave several pieces of evidence supporting their views. However, almost everything offered as evidence is subjective or vague. Frequently figures cited as indicating the program's effectiveness were actually just increases in the program's size or activities.

KAGE offered the following as evidence supporting an affirmative response to this question.

- That enrollment in G/T programs has grown to more than 12,000 pupils.
- That student participation in extra-curricular intellectual/creative/artistic/leadership academic activities triples every year.
- That seven major state universities offer courses and programs available to G/T students.
- That evidence gathered by individual district programs indicates major improvements in students' attitudes toward self, school, and society; in their research and study skills; and in their operation at higher cognitive and affective levels.

In response to our asking whether the program was effective, the Kentucky Education Association's (KEA) Special Education Caucus replied simply: "Yes, as far as we know, in the sixty-five districts that have had this program for a year or more."

The Student Selection Process

From the literature, we learn that "giftedness" may include a variety of different characteristics and that no simple objective measure can accurately identify the gifted and talented student. This problem, coupled with limited financial resources, makes the issue of student selection important.

Students are identified by various means in different districts. The "Kentucky Guidelines for Gifted Education" suggest a multiple item identification process, with an obligatory eighth or ninth stanine score on an intelligence test or a composite achievement test. No descriptive data on the level of students served in the program is compiled by the DOE. However, information from the staff field visits to sixteen local districts, the summative evaluations compiled by the DOE, and a survey of the state's G/T coordinators do provide information on the local districts' methods of G/T student selection which can be used to create a profile of students in the program.

The sources cited above reveal that the Comprehensive Tests of Basic Skills (CTBS) is the most widely used identifier. All sixteen districts visited by staff used the CTBS. The CTBS measures achievement in several academic areas. Intelligence test scores are also used frequently, as are regular teacher ratings or recommendations, often based upon checklists of desirable behaviors. Grades are used somewhat less frequently. Other identifiers used occasionally include "Behavior/Ability Discrepancies Questionnaires";

tests of creativity, leadership, or talent; and parent or peer ratings or nominations. By looking at the types of identifiers being used, certain conclusions can be made about the kinds of students most likely to be selected for the program. While certainly a great variety of characteristics exist in the state's G/T students, some general observations can be made.

Identification procedures used favor the inclusion of high achievers. Reliance on the CTBS favors selection of students who are academic achievers. Given the attitudes of the regular teachers surveyed, the use of regular teacher recommendations probably favors high academic achievers also. Regular classroom teachers surveyed indicated that students who consistently demonstrated high academic achievement are most often their choice for participation in G/T programs. These teachers indicated a preference for students of this description, more often than for "students whose intellectual capability is in the top five percent of the class," or "students with high intellectual capabilities who find themselves unable to achieve within the confines of the regular classroom setting." While the inclusion of intelligence tests in the identification procedures of most districts probably limits the number of average to above average high achievers, the reliance on teacher recommendations and CTBS scores also limits the number of very intelligent underachievers.

These observations raise the questions: "Are the students who are being served gifted?" and "Are those being served those most in need of differentiated activities?" When local districts were asked to characterize their G/T students, many indicated that a good number of them were not gifted but were high-achieving, bright students. The identification procedures discussed above certainly favor students who are high achievers. However, high achievement is not necessarily indicative of giftedness. Giftedness is generally defined in terms of capability rather than accomplishment. Instruments such as IQ tests, which measure ability, are more appropriate as the central identifier.

Examples cited in G/T literature as justification for the existence of special programs refer to students who are extremely intelligent and achieving below their ability. G/T advocates often point to those students who are not succeeding in the normal environment as the ones who have the greatest need for, and could most benefit from, a G/T program. While an intellectually superior student who performs exceptionally well in the regular classroom may be challenged further in a G/T program, that student's record of high achievement indicates that his or her need for some alternative to regular classroom activities is not as urgent as the intellectually superior student who is achieving below his or her potential. The placement of average/bright students in a program by virtue of over-achievement is difficult to justify if G/T education is looked upon as addressing needs and not merely as enrichment or reward for performance.

Ironically, regular teachers and administrators often indicated that intellectually superior students who were not doing well in school did not deserve to be "rewarded" by participation in a G/T program. Additionally, measures which specifically search for the under-achieving gifted students were rarely employed. Only two of the sixteen districts visited indicated a formal attempt to detect behavior/ability discrepancies. In some in-

stances, the G/T teachers acknowledged the importance of seeking out these students but could not ensure their participation in the program because of the reluctance of regular teachers and administrators to allow them to miss regular classes in which their performance was unsatisfactory.

The large percentage of students participating in G/T programs in certain grades in some districts also raises the question of whether the program is addressing the needs of truly gifted students or offering a larger percentage of students an enrichment program. Despite the fact that fifty-seven percent of the gifted teachers interviewed felt that as many as twenty-five percent of their students were **not** gifted and the remaining forty-three percent felt that even fewer were gifted, there was agreement that most students benefited from the program. Whether the student was actually gifted was less important than the fact that a much needed enrichment and learning experience was valuable for the above average as well as the superior student.

Generally, the educator and parent/teacher groups support programs which focus on the intellectually gifted. None of the organizations responding supported programs for the talented at the expense of programs for the intellectually gifted.

Although KSBA members did not indicate a preference for greater emphasis on the talented, a few felt that both the intellectually gifted and the talented deserved equal attention. The vast majority, however, felt that G/T programs should concentrate on the intellectually gifted.

KAGE indicated that because opportunity for instruction in the arts is found in many areas of the state outside the public school setting, programs for talented students should received first priority in the public schools.

KEA's Special Education Caucus declined to speak to this question because of the ambiguity they felt surrounded the terms "talented" and gifted."

The KPTA response stated simply that the state should concentrate on both.

Identification of Minority and Handicapped

Given the problems of standardized tests in appopriately measuring the level of functioning in handicapped and minority students, the Kentucky Guidelines recommend the adoption of special identification procedures. In the distrits visited, the percentage of students in the program who were handicapped ranged from zero percent to two percent. The number of minority ranged from zero percent to four percent. Only fourteen percent of the districts had any special identification procedures for these groups. No data is available to indicate what percentage could be expected. Two groups surveyed, KAGE and KEA's Special Education Caucus have differing views on the adequacy of identifying gifted students among the handicapped and minority.

The Kentucky Association for Gifted Education (KAGE) states that the identification of gifted handicapped is a concern. However, the fact that "Kentucky specifically addresses this issue by way of its inclusion in the application forms for state education funding" is a positive note.

The Special Education Caucus responded:

> This is an area of major interest to us. We can cite a number of cases of pupils who displayed disabilities who were also "gifted" or "talented." These people should also be eligible for "GAT" services just as much as the pupils in the mainstream. However, these pupils must continue to be subject to PL 94-142 regulations if they have been admitted to "special education" programs.
>
> There is also a concern we know about that relates to this section. Pupils who participate in "GAT" programs should never be jerked in or out of the program any more than a pupil might be jerked in or out of any class in the regulation school instructional program. We know of cases in which principals, teachers, and parents have used the "GAT" program as a contingency for behavior management, both as reinforcement and as punishment.

Organizational Structure and Program Approaches

The 1981-82 Summative Evaulation indicates that the resource room pull-out program is the most commonly used approach in grades K-6. In junior high, advanced classes and pull-out are nearly equal in their usage. In senior high, advanced classes are the most frequently used organizational structure, as seen in Table 12.

TABLE 12

ORGANIZATIONAL STRUCTURES USED IN GRADES K-12
1981-82

ORGANIZATIONAL STRUCTURE	K-3	4-6	7-9	10-12
Resource Room Pull-Out	43	55	32	13
Advanced Classes	11	15	33	31
Special Activities Within Regular Classroom	28	29	28	17
Individualized Mentorships	7	8	15	17
Extra-Curricular Saturday and Evening Activities	12	20	23	17

SOURCE: Department of Education, "Summative Evaluation Report."

The resource room pull-out was also mentioned as the approach the majority of planning districts intended to use upon beginning their gifted programs in the 1983-84 school year.

Our research shows that the pull-out approach poses problems for the districts. While, in general, coordinators seem positive about the pull-out approach, they cited several logistical and substantive problems with moving students and teachers to self-contained classroom sites.

- the expense, time and effort of transporting students from one school to another (especially in rural areas);
- the time and effort related to transporting the gifted itinerant teacher from one school to another (especially in rural areas over long distances);
- scheduling conflicts for students who miss classes when pull-out occurs;
- difficulty for gifted students who must make up work they missed while out of classroom;
- availability of classroom space for a special class;
- inadequate time in the gifted program because of time conflicts with the regular classroom activities; and
- lack of meaningful overlap between the regular classroom learning and the gifted class activities.

Despite these shortcomings the pull-out approach seems the most popular with the Department of Education and within the districts. Administrators and coordinators generally express the attitude that the unique, differentiated educational opportunities offered to the gifted student would not or could not occur within the regular classroom because of the variety of students and the numbers to be dealt with already. Therefore, they consider separate pull-out or advanced classes preferable.

It should be noted from the previous table that a significant number of districts do report having special activities within their regular classroom. A survey conducted by the Program Review and Investigations Committee of regular classroom teachers indicates that this group ranks advanced or specialty classes within the regular classroom as the most effective way to structure the program. However, the number of such planned activities in the regular classroom, as observed by the Program Review staff when visiting sixteen district programs, was negligible.

Responses from the various organizations are fairly well divided on this issue. Frequently, such responses indicated support for the integration of both special classes and regular classroom activities for the gifted. Regular teachers responses to related questions indicate a preference for in-class activities over the pull-out approach.

A two-to-one majority of the responses from members of the Kentucky School Boards Association (KSBA) indicated a preference for special programs. However, many members indicated that both approaches should be used simultaneously.

The KAGE response indicated support for a combination of mainstreaming and special programming. It is the feeling of KAGE that gifted and talented students' emotional

and psychological health is enhanced through contact with other G/T students. However, they indicated that G/T students should retain contact with regular students. KAGE suggested two ways of accomplishing this: (1) If the G/T program is part-time pull-out, G/T students would spend time in regular academic classes; and (2) if their program is full-time pull-out, G/T students should attend physical education with regular students.

The KEA's Special Education Caucus indicated that more special programs for the gifted are needed and that more could be done within the regular classroom.

The Department of Education seems to have had a preference for the pull-out approach. One indicator is the number of resource room pull-out programs funded by the Department. Second, certain guidelines made this structure especially attractive. The "Kentucky Guidelines for Gifted Education" read:

> The program should have access to an area which may house both pupils and materials, with adequate floor space and storage to meet the objectives of the program. An itinerant program for which there is no "home base" is not recommended.

From our field interviews it was apparent that districts viewed their "pull-out" rooms as synonymous with "home base."

Third, the funding of a unit based on serving seventy-five gifted pupils for one full day per week (or "the equivalent of same," i.e., 150 students for one-half day) made pooling a few gifted students from several grades for common learning a preferable alternative to designing individual lesson plans for each child in his/her own class to assure differential learning and teaching techniques.

This preference by the Department of Education for pull-out was observed by one superintendent who stated that originally his district had asked for funding of an experimental Saturday program, which was partially operational at the time. This grant application was denied. It was the superintendent's understanding that his grant would have been approved if a pull-out approach had been used. The superintendent did modify his approach the following year and subsequently received funding.

As indicated by our review, the pull-out approach has a certain appeal when funding, personnel and students served are limited. However, there are several logistical problems in using this approach with an itinerant teacher or student busing component. Despite its popularity, no evaluation data has been gathered by the Department of Education or local districts to support its effectiveness or cost-efficiency.

Program Activities and Curriculum Development

From our previous discussion we see that the gifted program serves the gifted and the high achiever or bright student who is fortunate to have a gifted program in his or her grade at school.

The student usually will receive learning opportunities outside the regular classroom in a pull-out or advanced class setting. The question then arises, "What experience does this student receive to challenge, enrich and develop him or her?"

The specific areas of emphasis, or, more accurately, areas of learning reported by the sixty-five districts in the 1981/82 school year numbered over eighty. Through our analysis we documented ten general areas of emphasis. Table 13 shows these areas and the frequency in which they are included by all sixty-five districts.

TABLE 13

FUNDED AREAS OF EMPHASIS OF THE
STATE GIFTED AND TALENTED PROGRAMS
1981-82

Area of Emphasis	Districts	Districts
Cognitive Development	35	53.8%
Specialty Classes	35	53.8
Enrichment	28	43.1
Independent Studies	23	35.4
Language Arts	19	29.2
Arts	18	27.7
Advanced Classes	17	26.2
Research/Study Skills	14	21.5
Self-Development	8	12.3
Other	7	10.8%

Note: Number of districts responding was forty-five (70% of funded districts). A district may have more than one area of emphasis.

SOURCE: Program Review staff survey of local school district gifted program coordinators.

It appears that over fifty-three percent of the districts have activities related to cognitive development, and fifty-three percent have "specialty classes." The cognitive development activities stress thinking skills, use of Bloom's Taxonomy of Higher Thinking, logic and creative problem solving. "Specialty classes" refers to enrichment classes, not necessarily accelerated or honors courses, in specific areas, such as computer science, futuristic studies, humanities and business.

Over forty-three percent of the programs have enrichment activities, emphasizing literature and cultural and world affairs. Over thirty-five percent have Independent Studies activities, which may include student interest development, contractual learning activities, or mentor programs.

From this wide array of activities we can see that students in the gifted program are being offered educational opportunities different from the regular class activities.

Through field visits staff observed the gamut of teaching techniques, emphasizing student participation and independence. This approach, coupled with the smaller class size and homogeneity of purpose, created a creative and accepting atmosphere for the gifted/talented students.

Generally, the organizations favored the use of both academic classes and programs which developed cognitive skills. Most indicated that the approach should vary according to grade level.

A majority of KSBA members indicated a preference for thinking skills, research and creativity over advanced classes. But this was not a large majority and in fact, many indicated that they felt these categories were not mutually exclusive. A large number suggested that an ideal program integrated all of these elements. Responses to the grade level question were more definitive. Almost all felt that different grades should receive different approaches. Many respondents combined their response to both parts of the question with such statements as the following:

> the development of thinking skills, creativity and research are basic to the education of gifted students at all levels. It should be the major focus throughout elementary school and assume a supporting role in secondary school as advanced classes are pursued.

KAGE's response indicated that both approaches were necessary, but that the emphasis in middle and high school should differ from that in the earlier grades. KAGE felt that advanced classes should be offered to older students, while "special instruction that nurtures higher process skills, encourages creativity, develops specific talents, offers independent study and research opportunities" should be emphasized in the early grades.

The KEA Special Education Caucus said that all pupils should develop skills in "thinking," especially pupils in this program. They also felt that the approach should vary according to grade level.

The KPTA stated that the program "should vary according to grade levels. All components are obviously important to a well-rounded, well-developed student."

The survey of regular teachers asked several questions which are relevant to program approach. One question asked teachers to rank possible goals for a G/T program from a list of five alternatives. Their ranked responses are listed below in order of priority.

1. To develop and sharpen the gifted student's general cognitive and problem-solving skills.

2. To provide the gifted students with advanced classes in academic areas, such as math and science, to better prepare them for college.

3. To develop the gifted student's verbal and written communcation skills.

4. To provide the gifted student with enrichment activities, such as cultural events, literature, field trips, historical events, and guest speakers, to broaden their exposure to the world around them.

5. To strengthen the gifted student's research skills.

Additionally, 136 agreed with the statement: "The activities of the G/T program need to be directed more toward academic learning objectives." Ninety-eight disagreed. Teachers also indicated a preference for advanced or specialty classes over pull-out as an organizational arrangement. Because pull-out is presently the most common approach, application of the teachers' preference would constitute a program change.

Developmentally Designed Programming

As observed in the Program Approach section, the more generic skills development activities were emphasized in the lower grades, with more specialty and advanced courses offered at the junior and high school levels. This is in some ways a developmental approach to gifted education: the more refined a student's capabilities become, the more technical and specialized the learning. However, thirty-nine of the sixty-five programs did not have a gifted program at all grade levels; therefore, the developmental learning experiences of gifted/talented students would not carry through all grades.

Developmentally designed activities within a gifted class was a requirement in the "Kentucky Guidelines for Gifted Education." The issue addressed here is really twofold:

- Are the individual activities meeting the goals of the program?
- Are these geared to the specific learning capability of the individual child served?

The coordinators, both those with ongoing programs and those in the planning stages, saw a need for model curriculum and successful program identification. Sixty-two percent of coordinators with operational programs said they had a need for model curriculum, while forty-seven percent of planning coordinators said they needed consultation or assistance relative to model programs outside Kentucky, and seventy-one percent said the same for successful programs within the Commonwealth. Although planning coordinators were surveyed in an early stage of their program development, the issue of good, developmentally designed activities and curriculum is still an issue. The earlier "experimental" districts have not exhausted their need for these model approaches, nor has the Department of Education produced a document detailing these successful developmental curriculum within or outside the Commonwealth.

Through the field visits, staff learned, both by observation and through interviews, that there was great variance in the manner in which programs attempted to developmentally design activities to meet the programs' oveall goals. Some districts did attempt to link an individual learning component with the larger program goals; other districts seemed to have a running log of activities that were assumed to accomplish the program's purpose. Again, no evaluation by the Department explored this issue. Reports by the Department also seemed to assume that if an activity took place a student was automatically enriched, challenged or mentally and personally growing.

Adequacy of Resources for the Gifted Program

Concerning resource needs, sixty percent of the coordinators surveyed said their district did not have an adequate number of qualified personnel to direct and teach the gifted/talented program. Table 14 shows the specific subject area in which expertise is needed. Thirty-one percent of those needing personnel said it was in the area of computer science. Twenty-seven percent mentioned fine arts and theories of cognitive thinking and models of enrichment.

TABLE 14

GIFTED PERSONNEL/EXPERTISE NEEDED
AS REPORTED BY DISTRICT COORDINATOR

Type of Expertise or Personnel Needed	Number of Districts	Percentage of Districts
Computer Science	14	31%
Fine Arts	12	27%
Theories of Cognitive Thinking and Models of Enrichment	12	27%
Drama, Music, Dance	11	24%
Science	8	17%
Math	5	11%
English	4	8%
Social Studies	3	6%
Other	3	6%

SOURCE: Program Review staff survey of 45 gifted program coordinators.

Additionally, the field visit reports confirm the need for expertise, as fifty-six percent of those interviewed agreed that there is a need for additional personnel.

On the summative evaluations submitted to the Department of Education, lack of funding and time for the students were mentioned as weaknesses of the program. Field visit responses showed one-half of these districts had some needs for additional materials and thirty-eight percent needed more space. Almost seventy percent said they did not have enough time, which may reflect a need for additional personnel.

Cooperation and Support for the Gifted Program

The second issue related to support for and acceptance of the program was most frequently a concern about the regular classroom teachers' acceptance of the gifted programs. Table 15 shows the viewpoints of the regular classroom teachers on a number of different issues.

TABLE 15

REGULAR CLASSROOM TEACHERS' VIEWS ON THEIR DISTRICTS' GIFTED AND TALENTED PROGRAMS

ISSUE	Agree	Disagree
Low teacher-student ratios are a primary reason why the gifted/talented program is effective.	182	60
Students often become more observably motivated toward regular classroom learning after they begin the gifted/talented program.	83	162
The gifted/talented program is primarily a means of broadening and enriching students' lives.	221	25
There is little meaningful overlap between the lessons in my regular classroom and those of the gifted/talented class.	131	110
The activities of the gifted/talented program need to be directed more toward academic learning objectives.	136	98
Some students who are in the gifted/talented program, although not truly gifted, still benefit from the program a great deal.	199	40
Students who are in the gifted/talented program should be removed from the program if the quality of their regular class work declines and allowed to return only after their work improves.	205	40
I have not had sufficient contact with the gifted/talented program or teacher to assess its worth.	28	196

SOURCE: Program Review and Investigations Staff Survey of Regular Classroom Teachers in Sixteen-district Sample.

In response to our survey, the regular classroom teachers ranked the need for a gifted/talented program as the second most important funding need, following smaller class size. However, some of the problems with regular teachers' acceptance of the program may be based on their perceptions of the program, which varies somewhat from those of the gifted coordinators and those generally expressed in the gifted educational literature. For example, while the program is generally aimed at identifying the top five percent in-

tellectually in a class, the regular classroom teachers ranked students who consistently demonstrate high achievement in the regular classroom as their first choice to be served. In contrast, gifted program teachers and coordinators often called these students "teacher pleasers" and, while admitted they gained from exposure to the program, did not feel they were the most appropriate population.

Regular classroom teachers also preferred advanced or specialty classes within the regular curriculum to a resource room pull-out approach. A majority felt that there was little meaningful overlap between the lessons in the two programs and did not observe additional student motivation in the regular classroom after the gifted/talented program began. Notably, regular classroom teachers do not agree with some accepted gifted education notions. They do not agree that class work missed by gifted students should only be accomplished to the extent the student demonstrates an understanding of the lesson. They also do not agree with the argument that students should not be removed from gifted classes even if their other grades drop, because the gifted program should not be treated as a "reward" for high performance, but an educational requirement for a "special" student.

Our field visits revealed that cooperation and support for a gifted program vary between districts. Most superintendents and administrators were supportive of the program. However, districts in communities that had KAGE chapters which were near universities or colleges, had easy access to cultural enrichment experiences, or had student populations with generally higher IQ scores, seemed to have more effective programs and be more positive about their programs.

Summary of Findings

The Gifted and Talented Education Program was created by the Kentucky General Assembly as an experimental program with statutory requirements regarding evaluation. However, no reliable evaluation of the effectiveness of the statewide program has been conducted by either the Board of, or the Department of, Education. Local district evaluation efforts have tended to be informal and heavily reliant upon subjective judgments by administrators, teachers, parents, and students.

In the five years since its inception, this experimental program has not provided data on the identification and development of program approaches that are effective and cost-efficient. Furthermore, the needs of gifted students in Kentucky, the effective methods for local district determination and the effective curriculum and program approaches to meeting these needs have not been identified.

Local district programs have tended to adopt a separate class, pull-out approach to programs in the elementary schools, while specialty and advanced classes are more frequent in middle and senior grades.

The programs are concentrating on identifying and serving the academically or intellectually advanced students. Although superior students are being served, there is a

tendency to include high achieving students (not necessarily students with superior intellectual abilities) and to view the program as a reward for academic performance.

There is general agreement among administrators, teachers and parents that the educational needs of gifted and talented students do require special programs and that these needs are not now met through the regular classroom. These persons do not agree, however, on the program approaches best suitable.

Given the lack of adequate evaluation and research data to determine the effectiveness of the local programs, changing from an experimental program is not presently advisable. At the current level of funding ($19,500 for seventy-five students), the total appropriation needed to serve five percent (32,554) of the state's students would be $8.5 million per year.

Before expenditures of this size are committed on a permanent basis, a thorough study of approaches and curriculum is needed. Furthermore, the needs, goals, and objectives of the state's program must be firmly established.

RECOMMENDATIONS

1. The General Assembly should maintain the Gifted and Talented Program as an experimental program for another biennium. An allotment of $500,000 per year to hire additional personnel and to cover the expenses of an in-depth evaluation of alternative programs and curriculum should be approved.

2. KRS 158.600 should be amended to establish an Advisory Council for Gifted Education, attached to the State Board of Education, to study and to recommend to the State Board a program of instruction for gifted and talented students in the Commonwealth.

Membership and Staffing

The Advisory Council should be composed of ten voting members appointed by the governor and two non-voting members.

- Two members should be superintendents of local school districts.
- Three members should include one regular classroom teacher, one teacher of gifted pupils, and one coordinator of a local district gifted education program.
- Two members should include one professor of gifted education and one professor with expertise in the area of testing measurements.
- One member should be from the Kentucky General Assembly.
- One member should be a parent advocate of gifted and talented education.
- One member should be a parent at-large.

- The Chairman of the Kentucky State Board of Education and the Superintendent of Public Instruction should be ex-officio, non-voting members.

Personnel of the Department of Education assigned to the gifted and talented program should serve as staff to the Council. The Superintendent of Education should contract for additional consultation and technical expertise outside the Department of Education as needed.

All operating expenditures should be paid through funds available to the Gifted and Talented Program, as approved by the State Board.

Powers and Duties of the Advisory Council

The Advisory Council for Gifted Education should support the activities intended by KRS 158.600 through KRS 158.620. In addition, the powers and duties of the Advisory Council for the 1984-86 biennium should be to:

(1) define the goals and objectives of the instruction of gifted and talented students in the Commonwealth;

(2) define the student population or populations who would benefit by the instruction of a gifted and talented program;

(3) set a priority for those populations who are most in need of instruction, if funding does not permit total service;

(4) define the identification criteria which will best delineate these student populations from the rest of the elementary and secondary student population;

(5) determine through a research program:

  (a) literature relevant to the development and design of programs;

  (b) programs outside the Commonwealth, whose organizational structures, instructional activities and program operations which together or separately effectively accomplish the stated program goals and objectives; and

  (c) experimental program appoaches effective and cost-efficient for Kentucky's schools;

(6) advise and approve the design of those methodologies by which this research program shall be achieved by the DOE;

(7) determine the cost of the various gifted and talented instructional services and the best allocation method to meet the identified need;

(8) design a statewide implementation plan which integrates the Advisory Council's recommendations into the local school district's program; and

(9) advise and approve a monitoring and ongoing evaluation system developed

by the DOE which would assure continual implementation of successful program components.

Reporting and Timeframe

The Advisory Council should report its activities to the State Baord of Education by way of its meeting minutes. Additionally, the Advisory Council should adopt a workplan within the first six weeks of its operations and report quarterly to the State Board, the Governor, and the Legislative Research Commission, concerning its scheduled progress. Finally, the Advisory Council should make an annual written report to the State Board of Education, the Governor and the LRC, and a final written report at the end of each biennial term which includes, but is not limited to, all areas of discovery as outlined in the powers and duties section above.

A detailed report on activities, findings, and recommendations should be submitted by the Advisory Council to the General Assembly prior to their convening in each biennial session.

Districts now receiving funding for experimental gifted and talented programs are serving students other than the gifted and talented (those with exceptional potentials), notably high achievers or good performers. Methods commonly utilized have the potential of excluding those who have exceptional potential but are not performing. In addition, few handicapped and minority students are being served and few districts have any special identification procedures for these groups.

RECOMMENDATIONS

3. Until such time as the Advisory Council adopts identification procedures, the Department of Education should require the use of a two-step identification and selection process for programs serving the intellectually gifted student.

   STEP ONE: Initial screening should utilize the eighth and ninth stanine of the Test of Cognitive Skills (TCS), as well as teacher identification and behavioral measures.

   STEP TWO: Final program selection should depend upon independent testing and needs assessment, including individual aptitude or cognitive abilities tests, creativity measures, and behavior-ability discrepancy measures. The objective of this selection process should be to identify those students with greatest intellectual potential, their differentiated program needs and the means of meeting these needs.

4. Programming at the local level should be based upon the individual needs of the students identified. Programs should utilize both in-class and out-of-class approaches to ensure the students' needs are being considered and met throughout the school day rather than only during select times.

5. The Department of Education should assist local districts in developing special procedures to ensure that minority, handicapped and very young (grades K-3) gifted and talented stduents are identified and served.

Recommendations one and two were adopted unanimously with certain amendments. Recommendation one was amended to remove a recommendation that no increase in funding, other than the $500,000, be approved in the next session of the General Asembly. The second recommendation was amended to include one regular and one gifted teacher, and one coordinator, and to specify one professor with testing and measurement background. Recommendation three was amended to clarify that the procedures outlined were not binding on the Council. This recommendation had two nay votes, due to the stated objective of identifying students of greatest potential, as opposed to performance. Recommendation four was adopted unanimously. Recomendation five was amended to include procedures for the very young. Two nay votes were given to this amended recommendation, due to the potential fiscal impct of serving more students.

CHAPTER VI

EVALUATION OF DEPARTMENT OF EDUCATION'S ADMINISTRATIVE AND OVERSIGHT ACTIVITIES

Kentucky statutes assign the Board of Education and the Department of Education with responsibility for administering the state's experimental program and evaluating its effectiveness. An added responsibility is to provide in-service training for local school district personnel involved in implementing gifted and talented programs.

Compliance With Funding and Program Evaluation Mandate

Kentucky's Department of Education has been assigned responsiblity for evaluating the state's gifted and talented program since its inception in 1978. Originally, the Department was mandated to perform a cost/benefit study of the program. From 1980 to date, the only requirement has been for the Department to issue an annual evaluation report to the Legislative Research Commission (LRC) and the Governor.

The Board and Department have not conducted any systematic, planned evaluation of the program's operation. They have monitored and encouraged its growth but have made no attempts to evaluate program approaches to determine their effects.

Funding Method

According to KRS 158.610, governing regulation of gifted and talented education programs, the Board of Education is empowered to adopt regulations to govern applications for experimental program funds. Funding for experimental programs is to be based upon annual applications (KRS 158.610) with reimbursement amounts determined by the Board (KRS 158.615).

Funds for experimental programs have been allocated by the Department of Education differently in each of the three biennium periods. In 1978-80 local school districts could recieve a grant of up to $50,000. Programs funded each year were chosen through a ranking process. Grant applications were reveiwed by Department of Education staff (1978-79) or by out-of-state experts (1979-80) and rated on several bases. A recommended funding level for each program was determined by Department staff and the number of programs funded depended upon the funds available. For the period 1980-82, funding was based upon the number of students to be served, with one unit equivalent to seventy-five gifted and talented students served one day per week. Applications were read and ranked by out-of-state experts. In 1982-83, program planning units were also provided to aid districts interested in planning for a 1983-84 program. For 1983-84 all districts sub-

mitting an acceptable program grant application are eligible for funding of one-half to three units, based upon their 1981-82 adjusted average daily attendance.

In 1978 and 1979, local districts submitted detailed evaluation reports, as evidenced by a review of the Department's files by Program Review staff. However, beginning with 1980 and the adoption of the Department's "Summative Evaluation Report," submission of these detailed local reports ceased.

Despite the submission of evaluation reports by programs in 1978 and 1979, and the "Summative Evaluations" in 1981-83, evaluation results were not formally used in the grant review process. In 1978 and 1980, reader ratings were not elicited based on evaluation results, but only upon the proposed evaluation schemes. Beginning in 1981, continuation grant requestors were informed that grants depended upon submission of an acceptable evaluation; however, the only evaluations submitted were the descriptive data of the "Summative Evaluations." These forms do not require the submission of formal program or pupil evaluation results to demonstrate program effectiveness.

Program Evaluation Activities

During the 1978-80 biennium, the local districts were required to outline a plan for evaluating student and program performance. These reports were required to be submitted to the Department of Education annually and were to include full documentation and data on the evaluation procedures and results. There is no evidence to indicate that the Department of Education had any evaluative scheme in effect which would have allowed the identification of successful or unsuccessful programs on a statewide basis. Further, the use of these evaluations in determining refunding appears to have been limited to a review by the Department's independent readers of the evaluation procedures outlined in the district's grant application.

In an attempt to standardize the reporting of evaluation results by the local districts, the Department of Education adopted a reporting format called the "Summative Evaluation." This report provided for consistent data reporting. However, the word "evaluation" can be applied only loosely. Essentially this report provides only descriptive data concerning such things as:

- distribution and location of program plans;
- satisfaction with nomination and identification procedures;
- authority for student placement in the program;
- advertisement of procedures;
- pupils served;
- program arrangement;
- program goals and objectives;

- parental, teacher, administrative and community involvement;
- means of pupil and program evaluation;
- budget; and
- major strengths and weaknesses of program.

Although this information provides valuable description and may be useful in ensuring that programs are following guidelines, it lacks any clear usefulness for evaluation. No information is required regarding student performance indicatiors; student, teacher or parent assessments; or costs and benefits related to alternatives. Without these types of information the Department is not in a position to determine successful programs or make refunding decisions based upon the program's performance. A "satisfactory evaluation," as required by the Department for refunding, can only refer to the form of the evaluation as described in the application and not the content or results. This limitation would explain, in part, why all districts applying for continuation funding from 1981 to date have received this funding, despite the lack of adequate evaluation and performance data (as evidenced by the field visits to sixteen districts conducted by the Program Review and Investigations staff).

Program Reports

A review of the LRC library file and conversations with staff of the Interim Joint Committee on Education failed to produce either the cost/benefit study mandated in 1978 or annual evaluative reports submitted since. A request to the Director of the Bureau of Instruction, which has administrative responsibility, did produce several documents submitted to the Board of Education as program status reports and included in the "Biennial Report of the Department of Education." Additional reports on the goals, objectives and accomplishments have been reported annually as part of the state's budget status reports. Despite the reference within these status reports to evaluative visits to the local districts and the compilation of final evaluation reports, the only documents submitted in response to the Program Review staff request have been descriptive reports of the programs' activities.

Budget Status Reports. Although the Department has been required to evaluate the gifted program since 1978, the December 31, 1978 Budget Status Report made no mention of any program objective related to evaluation or major problem area related to evaluation.

In the calendar year 1979, evaluation of the program was stated as an objective for the Department. Accomplishments of this objective included a descriptive report of the twenty-three districts operating gifted/talented programs in the 1978-79 school year. The only cost analysis in this report was the per pupil cost for the state dollars spent in each district, which ranged from $1,112.70 per student in Pulaski County to $11.35 in Jefferson County. No programmatic evaluation was included. The other accomplishments concern-

ing the objective of evaluation were actually activities to be undertaken in the next school year (1979-80).

On the Budget Status Report for July 1, 1979 through June 30, 1980, the Department listed evaluation of the G/T program as an objective again, and stated that the accomplishments were a final report similar to that published the year before and reports to be completed in the future. On-site evaluations of twenty-five schools in 1979-80 were also mentioned, but no written report of their findings was made available to the LRC staff.

The 1980-81 Program Status Report stated that evaluation of the program was accomplished by a final evaluative report compiled in July, 1980. Also listed as demonstration of accomplishing this objective were 1980-81 mid-year reports submitted by districts, a summative evaluation completed by the Department and on-site visits conducted by the state program manager and the Division of Student Services. The departmental report for 1979-80, compiled in July, 1980, was not made available to LRC staff.

In 1981-82, the Department's efforts to evaluate the G/T program were again accomplished through on-site visitation to the district, district-submitted status reports and a final evaluative report, compiled in July, 1981, called the "1980-81 Summative Evaluation Report."

Summative Evaluation Reports. For the school years 1980-81 and 1981-82, the Department compiled an extensive descriptive analysis of the district programs. The description included a summation of who was involved in the writing of the local gifted educational plans, student identification methods used, persons having the authority to place students in the program, the total number of students in the program, the goals/objectives, academic activities, personnel involved, evaluative activities, and budget figures.

The information was obtained by the Department through the requirement that each participating district submit the necessary information on a reporting form at the end of the school year.

The Department did not attempt to assess the value of any given program based on the district self-reporting information, but succinctly summarized the documents to give an overview of Kentucky's program.

Biennial Report to the State Board of Education. The Department provided PRI staff with program status reports submitted to the State Board of Education for the time period of 1978-79, 1980-81, 1981-82, and 1980-82.

No mention of evaluation is made in the 1978-79 report. In the 1980-81 report, one section is dedicated to the evaluation of the program. It states that the districts must submit to the State Department quantitive and qualitative evaluations as addressed in the application guidelines. Also,

> . . . the state program manager [must compile] daily, weekly, monthly, and semi-annual quantitative and qualitative reports on all activities and [submit them] to the Division of Program Development at regular intervals.

There is no mention of the findings of these reports or the success, shortcomings, or effectiveness of the program on the student population served. In the 1980-82 Biennial Report, the success of the program was assumed to have been accomplished. The report listed the major goals of the program, not as established by the Department, but as stated by the districts:

> . . . interest exploration, development of higher level thought processes, cognitive and affective, research skill development, visual and performing arts, exploration, leadership development and emotional maturation.

The report continued by stating that these goals were accomplished, as were a number of other indicators of success. None of these indicators included student change attributable to the intervention of the gifted program.

In conclusion, program evaluation data concerning effectivenss or cost-efficiency of the state's program or of local program efforts is notably absent. Although required by law, evaluation of the program has not been conducted in a manner which would provide valid data regarding effectiveness or efficiency.

Per Student Distribution of Funds

Table 16 displays the average grant amount, average per student funding and the ranges of funding allocated to districts from 1978 through 1982. The average district grants and ranges have varied greatly between the approaches in 1978-80 and 1980-83. Use of the formula method standardized and stabilized the amounts for districts.

TABLE 16

AVERAGE AND RANGE OF PROGRAM GRANTS
AND PER STUDENT FUNDING
1978-1983

	FUNDING PER DISTRICT			FUNDING PER STUDENT		
YEAR	AVERAGE AMOUNT	RANGE Minimum	Maximum	AVERAGE AMOUNT	RANGE Minimum	Maximum
1978-79	$23,143	$2,000	$38,000	$336	$102	$833
1979-80	21,786	4,000	42,000	258	36	909
1980-81	22,680	7,200	54,000	164	43	243
1981-82	30,096	7,800	58,500	219	32	347
1982-83	$29,859	$5,200	$58,500	$218	$ 13	$331

SOURCE: Computed from funding and projected enrollment data provided by Department of Education.

However, the per student funding has varied not only between time periods but also between districts within any particular grant year. The current unit funding approach heavily favors smaller districts. Table 17 presents the five highest and lowest districts in per student funding for the period 1980-83. This data is based upon the projected number of students to be served by the district's program, as shown, the per student funding varies tremendously. In 1982-93, Jefferson County, the state's largest school district, with an approximate total enrollment of 99,000, received only $13 per gifted student, based on five percent served. This figure contrasts with Maysville, with a total enrollment of approximately 850, which receives $305.50 per gifted student, based on five percent served. Maysville receives one unit ($19,500) to fund one teacher and serve forty-five students, while Jefferson County receives three units ($58,000) to fund three teachers and to serve 4,950 students.

TABLE 17

FIVE HIGHEST AND LOWEST SCHOOL DISTRICTS IN PER STUDENT FUNDING

1980-83

	LOWEST FUNDING		HIGHEST FUNDING	
YEAR	District	Amount	District	Amount
1980 to	Berea	$ 42.96	Jessamine	$ 240.00
1981	Paintsville	59.20	Murray	240.00
	Hopkins	69.77	Russellville	240.00
	Paducah	75.31	Shelby	240.00
	Harlan	80.00	Henderson	243.24
1981 to	Spencer	32.18	Russellville	260.00
1982	Berea	46.53	Shelby	260.00
	Paintsville	65.87	Trigg	260.00
	Jefferson	97.99	Boone	267.12
	Oldham	104.00	Harrodsburg	346.67
1982 to	Jefferson	13.00	Trigg	281.44
1983	Greenup	93.30	Harrodsburg	283.64
	Warren	94.20	Maysville	305.50
	Bowling Green	111.70	Dawson Springs	329.33
	Oldham	$ 113.70	Boone	$ 330.51

SOURCE: Computed from funding and projected student enrollments data provided by Department of Education.

TABLE 18

MINIMUM/MAXIMUM NUMBER AND PERCENTAGE OF STUDENTS PER DISTRICT SCORING IN 8TH AND/OR 9TH STANINE ON THE CTBS

	DISTRICT TOTALS (3, 5, 7, 10)		GRADE 3		GRADE 5		GRADE 7		GRADE 10	
	8th & 9th Stanine Scores	9th Stanine Scores	8th & 9th Stanine Scores	9th Stanine Scores	8th & 9th Stanine Scores	9th Stanine Scores	8th & 9th Stanine Scores	9th Stanine Scores	8th & 9th Stanine Scores	9th Stanine Scores
Max. % of Students	27.6	12.8	56.5	39.1	42.9	28.6	41.3	17.4	27.1	19.1
Min. % of Students	1.9	0	1.4	0	0	0	0	0	0	0
Max. Number of Students	2,222	1,024	864	407	577	236	520	189	730	363
Min. Number of Students	2	0	1	0	0	0	0	0	0	0

SOURCE: 1982 Statewide Testing Results, supplied by Department of Education.

NOTE: Based on 1982 test results.

TABLE 19

MINIMUM/MAXIMUM NUMBER AND PERCENTAGE OF STUDENTS PER DISTRICT SCORING IN 8TH AND/OR 9TH STANINE ON THE TCS

	DISTRICT TOTALS (3, 5, 7, 10)		GRADE 3		GRADE 5		GRADE 7		GRADE 10	
	8th & 9th Stanine Scores	9th Stanine Scores	8th & 9th Stanine Scores	9th Stanine Scores	8th & 9th Stanine Scores	9th Stanine Scores	8th & 9th Stanine Scores	9th Stanine Scores	8th & 9th Stanine Scores	9th Stanine Scores
Max. % of Students	17.6	14.3	26.1	18.8	33.3	15.2	34.5	31.0	19.1	8.3
Min. % of Students	1.0	0	0	0	0	0	0	0	0	0
Max. Number of Students	1,748	767	472	215	741	317	614	249	475	211
Min. Number of Students	1	1	0	0	0	0	0	0	0	0

SOURCE: 1982 Statewide Testing Results, supplied by Department of Education.

NOTE: Based on 1982 test results.

Impact of the Five Percent Per Grade Funding Restriction

At present, the Department of Education guidelines mandate that no more than five percent of any grade or of a total district may be served in a gifted/talented program. To be eligible, students must have an eighth or ninth stanine score on an I.Q. or composite acheivement test. The tests most commonly used as identifiers are the Comprehensive Test of Basic Skills (CTBS) and the Test of Cognitive Skills (TCS), which are administered statewide each year in grades 3, 5, 7, and 10, and are the only tests given in many districts.

To establish the equity of the five percent per district funding distribution on the level of students served in each district, CTBS and TCS test results were collected from all of the districts in the state and reviewed. The percentage of students and the number of students scoring in the eighth and ninth stanines were examined to measure the variability that the five percent restriction might encounter. Tables 18 and 19 summarize this information according to eighth and ninth stanine and ninth stanine scores.

Two tables were assembled—one for CTBS scores and one for TCS scores. Each table displays the minimum district and maximum district percentage of students and number of students in grades 3, 5, 7, and 10. Stanines are divisions used in scoring the CTBS and TCS. They are numbered one through nine—one being the lowest score and nine the highest. These divisions or stanines are standardized and are not influenced by local variations in scoring. By definition, the ninth stanine represents the top four percent of an ideal, varied population. The eighth stanine represents the next seven percent.

These tables show the range of the potential pool of gifted students and indicate that substantial differences exist from district to district. While some districts could not "legally" place five percent of their students in a gifted/talented program, because they have no students in the 8th stanine or above, other districts must exclude students who score exceptionally well (ninth stanine), because they have more than five percent. This variation exists not only between districts but also between different grades within the same district.

The distribution of scores through the nine stanines varies dramatically from district to district. This variance poses a major problem for the identification process. At present, thirty-seven percent of the state's students scoring in the ninth stanine are ineligible for the gifted/talented program because they are concentrated in districts where more than five percent of the students scored in the ninth stanine. It should be remembered that eligibility for the program requires only an eighth stanine score on an achievement or I.Q. test. The thirty-seven percent mentioned above, approximately 3,000 students, all scored in the ninth (the top) stanine. So we find a situation where all students scoring in the eighth stanine or above in one district may be served by a gifted/talented program, while in another district only a portion of students with ninth stanine scores can be served, since that district has such a large number of high scoring students.

An example of this problem can be seen in the two sample districts shown in Table 20. Three hundred and twenty-two (18.6 percent) District A students scored in the eighth or

ninth stanines on the CTBS. One hundred and forty-two students scored in the ninth stanine (8.2 percent). District B is similar in size, but only sixty-six of its students (3.4 percent) scored in the eighth or ninth stanine. Of these, twenty-five (1.3 percent) actually scored in the ninth stanine.

The five percent restriction limits the number of students that each school may serve. The relative numbers of potential gifted students in each district varies considerably, If it is assumed that both schools will try to fill their gifted/talented classes with the highest scoring students, the inequity of the five percent restriction is apparent. In District B, all of the students scoring in the eighth and ninth stanine could be served by the program. However, District A would be able to serve only in the ninth stanine. Thus, students of the same ability levels do not have equal access to special program services.

TABLE 20

EFFECT OF FUNDING DISTRICTS BASED ON

TOTAL ENROLLMENT RATHER THAN NUMBER OF ELIGIBLE STUDENTS

	DISTRICT A	DISTRICT B
Total students tested	1,734	1,953
Maximum number of students to be served under 5% per district limit [1]	87	97
Number of students scoring in the 8th or 9th stanine of CTBS [2]	322	66
Number scoring in 9th stanine	142	25
9th stanine students eligible as percent of maximum number to be served	61 %	100 %
Percent of 8th stanine students eligible as percent of maximum number to be served	0 %	100 %

1 Department of Education funding limit.

2 An 8th or 9th stanine score is required for program eligibility by Department of Education guidelines.

NOTE: This data is derived using 1982 CTBS data which is based only upon students in grades 3, 5, 7 and 10.

Implementation of Ten-Year Plan

KRS 158.620 requires that the state's Board of Education annually update and revise a Ten-Year Plan for Gifted and Talented Education. The original plan was developed in 1977 and covered the period 1978 through 1988. No new plan has been developed subsequently. According to the Assistant Superintendent of Instruction, "perpetual revision and updating were futile given the tentative nature of funding from one year to the next." Implementation of this plan has only been partially successful.

Summarized in Table 21 are the major program objectives outlined in the Plan, the proposed implementation date and their current status. Implementation is on schedule, or ahead, in the areas of: population served, program reporting, plan approval, establishement of identification criteria, development of program guidelines and development of certification requirements. Several other areas, however, are behind schedule. These include: Department of Education staffing, formation of an advisory council, and development of a coordinator's guide.

According to the plan, a Gifted Education Advisory Council was to be created in 1978 to assist the Department in implementation, to review local program plans, to monitor implementation. This Advisory Council was never formed. Instead, the Department has relied informally upon the Board of Directors of the Kentucky Association of Gifted Education (KAGE), a statewide advocacy group, as the main advisory panel.

No explantion has been offered by the Department for the decision not to establish an Advisory Council. The Department does feel that it has cooperated with the KAGE organization to ensure the progress of gifted education and that this positive relationship is imperative for success of the program.

TABLE 21

TEN-YEAR PLAN PROGRAM OBJECTIVES AND IMPLEMENTATION STATUS

OBJECTIVE	Completion Date	Current Status	Planned Accomplishment Date	Comments/Remarks
To establish and staff an office in the State Department of Education to direct the gifted education program:				
• Establish and staff office with one full-time coordinator	1978	Ongoing	1978	
o Increase staff by one consultant	1980	Incomplete	----	Insufficient funds
o Increase staff by another consultant	1982	Incomplete	----	Insufficient funds
To establish a Gifted Education Advisory Council to assist in implementation of the program	1978	Completed	1978	Procedure handled internally within State Department; KAGE Board of Directors acts in advisory capacity
The Office of Gifted Education in the Department of Education will coordinate information on programs and resources to assure that programs operate in support of the state program and assist local districts in obtaining those programs for which they are eligible	1978	Ongoing		

SOURCE: Department of Education, Bureau of Instruction.

OBJECTIVE	Planned Completion Date	Current Status	Accomplishment Date	Comments/Remarks
To receive funds to provide local school districts for the operation of gifted education programs.				
• The appropriation for 1978-80 biennium permits experimental programs for the development of foundation data for program growth	1978	Completed	1978	
• The appropriation for the 1980-82 biennium will permit the currently operating programs to grow and new programs to start with service to be extended to 3% of the pupil population	1980	Completed	1980	
• The appropriation for the 1982-84 biennium will permit the stabilization of the program with service extended to 5% of the pupil population	1982	Ongoing	1982	
Each local school district shall prepare annual evaluative reports for release to the State Superintendent's Office of Public Instruction and the Legislative Research Commission.		Annually		Reports submitted to Superintendent for Public Instruction and State Board of Education

OBJECTIVE	Planned Completion Date	Current Status	Accomplishment Date	Comments/Remarks
A local plan for gifted education must be approved for each district in order to be eligible to apply for funding. The plan must include: • Program philosophy, including needs assessment and the rationale of the type of program selected • Screening process and identification criteria • Personnel information including certification requirements, time allotments and local criteria • Organizational arrangements including amount of time, scheduling, and number of pupils • Program content, including concepts to be taught • Evaluation design including objectives to be achieved and means for determining each pupil's success • Budget requirements including number of units requested, use of funds, and any local appropriation • All operational models should be included in the local school district plan for gifted education • Staff development plan will be included beginning in 1980	1978 1979 1980 1981 1982 1983	Annually	1978 1979 1980 1981 1982 1983	As previously submitted to LRC, annual applications include all aspects listed.

OBJECTIVE	Planned Completion Date	Current Status	Accomplishment Date	Comments/Remarks
Establish identification criteria which will be followed in each local school. One set of criteria will be outlined for placement in programs with intellectual or academic focus and another set for programs with a visual and performing arts focus. Specific requirements within these criteria will be set in each local school district program.	1978	Completed	1978 (rev. 1982)	
Operational models guidelines will be established and existing programs will be identified for visitation.	1978	Completed	1978 (rev. 1980)	
Specific activities for which coordinators will be responsible will be outlined in a coordinator's guide.	1981	Incomplete		Needs to be done
The Department of Education, the colleges, and the universities in Kentucky will work jointly to design a program which will lead to certification, including a Master's Degree program for gifted education.		Ongoing		
At the time that certification is effective, those teachers currently working in the program will be approved to continue, but new teachers entering the program must be certified in gifted education.	1986	Currently under study by Council on Teacher Certification		

Increased Staffing

According to the Department of Education, staffing has not been increased, due to insufficient funds. This explanation, however, reflects an administrative decision by the Department. Funds allotted by the General Assembly did not specify amounts for program grants or administration. The decision to administer the program with only one full-time staff person was the choice of the Department. As pointed out in Chapter III, the General Assembly's appropriations for the program were increased eighty-eight percent from 1978 to 1980, and two hundred percent from 1980 to 1982.

Coordinator's Guide

No explanation has been given for the failure to develop the coordinator's guide.

Evaluation of Department's Technical Assistance Role

The statutes establishing the gifted and talented program do no explicitly require the Board or Department to provide consultation or assistance to the local districts receiving grants. However, given that the program is to be state-directed, and given the general role of the Department in Kentucky's education system, it is reasonable to expect the Department to provide consultation and assistance, especially for an experimental program. This role was certainly acknowledged under the Ten-Year Plan.

> It is the responsibility of the office (Bureau of Instruction, Division of Program Development to administer the gifted education program, to assist local school districts in the planning, operation and evaluation of their gifted education programs, and to address such other needs as arise in the gifted education program. In order to adequately meets its responsiblity, the office should be staffed . . . with at least a program coordinator and two consultants.

Consultation and Assistance Activities

As noted above, the Department has employed only one full-time person, assigned to the program as Program Coordinator. This person provides consultation and assistance, visits districts, puts out a monthly newsletter, organizes conferences, and reviews grants and summative evaluations.

Fifty-three coordinators of programs receiving grants in 1982-83 were surveyed regarding the assistance they received from the Department in a number of areas. These results are summarized in Table 22. The table also indicates the percentage of coordinators indicating that assistance and consultation were still needed. It can be seen that in each area the majority have received some assistance or consultation; however, in no area did every district receive assistance. In three areas, curriculum, evaluation and training, over one-third feel assistance is still needed.

In our discussions with the sixteen programs visited regarding assistance received from the Department, seven (forty-five percent) indicated they received whatever assistance

they needed. Six (thirty-eight percent) indicated that letters and menus comprised the primary services provided to them by the Department. Responses for this sample of sixteen concerning specific areas of need are shown in Table 23. Essentially this information reinforces that already obtained from the program coordinators' survey.

TABLE 22

AREAS OF NEED WHERE DEPARTMENT OF EDUCATION PROVIDED ASSISTANCE AND WHERE ASSISTANCE IS STILL NEEDED

Area of Need	Assistance Provided by DOE	Assistance Still Needed
Program Design	75.6%	11.1%
Identification Procedures	75.6	15.16
Evaluation Development	55.6	40.0
Curriculum Development	51.1	31.1
Teacher/Staff Training	50.0%	31.8%

SOURCE: Program Review and Investigations Staff Survey of Program Coordinators.

TABLE 23

AREAS OF ASSISTANCE FROM DOE NEEDED BY SIXTEEN-DISTRICT SAMPLE

Area	Percent Needing
Information on Successful Programs	31.3%
Assistance in Program Development	31.3
Curriculum Information	25.0
Assistance in Developing Evaluation	12.5
Assistance in Developing Identification Procedures	12.5%

SOURCE: Program Review and Investigations Staff Field Visit Interviews.

Coordinators receiving planning grants were also surveyed regarding areas in which they would need assistance and who they felt could best provide the assistance. Results for the fifty-three planning grant coordinators surveyed are summarized in Table 24. In almost all of these areas fifty percent or more felt asistance would be needed, especially in plan development, training, materials, identification, literature and evaluation. Many of these are the same areas of need expressed by existing programs.

TABLE 24

PLANNING GRANT COORDINATORS' PERCEPTIONS OF AREAS OF ASSISTANCE NEEDED AND OF THE DOE AS THE BEST SOURCE OF ASSISTANCE

AREA OF NEED	NEED ASSISTANCE	DOE AS BEST SOURCE
Development of a plan	75%	45%
Successful program identification (within the state)	75	46
Program evaluations/funding assessment	75	74
Instructional materials	75	24
Workshops/conferences curriculum guides	75	56
Gifted Education literature	69	44
Identification tests/material	62	40
In-service training	60	23
Counseling/testing services	53	36
Model program sharing (outside Kentucky)	49	18
Resource person identification	48	51
School supplies/classroom space	40%	17%

SOURCE: Program Review & Investigations Staff Survey of Planning Grant Coordinators.

In-Service Training Activities

Kentucky statutes concerning the gifted and talented program mandate that the Department of Education provide in-service training. As described in Chapter IV, the Department has provided several statewide and local in-service training sessions, and has sponsored workshops at the statewide conferences of several professional educators association meetings and the Kentucky Association for Gifted Education.

The sixteen districts visited during this study were asked about the training their personnel had received. Fourteen (or almost eighty-eight percent) indicated that their teachers and staff had attended DOE in-service or workshop sessions. If this percentage should hold for the other forty-nine programs, then the DOE has done a good job in providing the opportunity for training.

Whether this training has been valuable or even sufficient is not known. However, twenty percent of the program coordinators surveyed indicated that training was still a need for them. Furthermore, over forty-four percent indicate that they are less than satisfied with their own district's training efforts. Finally, approximately sixty percent of the planning grant coordinators indicate that training is an area of need for successful development of their programs. Therefore, despite the efforts of the Department thus far, training still remains a major need.

Evaluation of DOE by Professional and Parents Groups

The groups contacted were asked to indicate their feelings on the amount of technical assistance and support provided by the DOE to local districts. Most of the organizations felt that the DOE provided sufficient support, particularly considering its limited staff. A variety of suggestions was made for improvements. An increase in staff size was the most frequently mentioned.

Most KSBA members indicated that sufficient support was received from the DOE. A significant number did indicate that they would like more direction. Five respondents indicated that they felt that the G/T department of the DOE was understaffed and could not respond to or assist all the districts adequately.

KAGE's response commends the work done thus far, but strongly urges that more staff be hired at the state level. KAGE suggests the creation of regional gifted education liaisons at the seven major state universities. These persons would work under the direction of the state program manager and would be able to offer more immediate services to their surrounding districts.

KEA's special education caucus also felt that the staff should be increased. Additionally, they stated that too often the DOE has brought presenters in from out of state.

KPTA stated that they "have noted improvement in the identification of needs and in the curriculum for the intellectually gifted." However, they go on to say: "The department does not seem to receive detailed data on student progress within the program;" nor does it "showcase successful school programs." Additionally, the KPTA felt

that the advocacy groups for the intellectually gifted seem to be stronger than for the talented-gifted. The KPTA feels both should have equal emphasis.

Summary of Findings and Recommendations

Since the inception of the program in 1978, the intent of the General Assembly has been to operate an experimental program. The Board of Education and the local districts have been required to evaluate the state and local efforts. Properly conducted, this approach should have led to the development of a successful, cost-effective program. KRS 158.600(2) implies that this development should have been controlled at the state level:

> State direction and implementation of a statewide gifted and talented education is manifested in the biennial appropriation of funds to finance such classroom units or experimental programs.

Informally the state's program has developed with a strong emphasis toward providing enrichment through cognitive skills training in one-half to one-day pull-out programs. No data exists to determine the effectiveness of this approach in terms of cost or pupil performance. Local districts utilizing this approach express mixed results. Administrators, teachers and parents groups also have mixed impressions of the successfulness or value of this approach.

In 1984, the Board and the Department plan to provide program monies to a total of 171 districts. One hundred and six will be operating programs for the first time. The development of these programs will be done by each district. Although they have access to other districts in the state with programs, program evaluation data is not available to them for deciding what approach or approaches would be most effective to implement.

A survey of fifty-three program coordinators receiving planning grants in 1983 indicated that seventy-four percent felt they would need consultation or assistance in identifying successful model programs. In this same survey, fifty-three percent indicated that exploration of successful programs would be their first priority in planning. Eighty-five percent ranked this as one of the top three priorities. Forty-six percent of these planning grant coordinators felt that the Department of Education would be the best source of assistance or consultation in identifying successful programs. Another forty percent thought other districts would be. Unfortunately for these planning districts, the only data available is either descriptive or subjective. Therefore, without data on effective and efficient approaches, local districts will be left to "reinvent the wheel," or learn from their own mistakes rather than draw from the experience of others who have gone through the process.

The need for information on successful programs is not limited to the planning grant districts. A survey of current program coordinators indicated that twenty-eight percent need assistance in identifying successful Kentucky programs, while thirty percent need assistance in identifying model programs in other states.

RECOMMENDATIONS

6. KRS 158.610 should be amended to require that the Department of Education, under the guidance of the Advisory Council for Gifted and Talented Education, develop and implement an evaulation procedure to monitor the activities of the gifted and talented program. This evaluation procedure should involve two components.

   First, a program evaluation component should be developed: to determine the needs of students and the impact of the program on these needs; to determine the immediate and long-term effects of the program on student performance, including academic performance, cognitive abilities, retention rates, personal and social development, and career accomplishments; to determine effective and cost-efficient program approaches and curriculum; and to determine effective and efficient identification methods.

   Second, a monitoring and oversight component should be developed to provide: information on the operation of the local programs; information on their compliance with program guidelines and requirements; and feedback for ongoing improvement of the local and statewide program.

7. KRS 158.610 should be amended to require that local school districts which receive funds from the state for a gifted and talented elementary or secondary school program develop evaluation procedures, according to guidelines issued by the Department of Education, to produce valid and reliable information on the effectiveness and cost-efficiency of their program approach. Evaluations should be formalized and approved by the Department and include subjective and objective indicators of effects related to the identified needs of the students. They should include formal evaluations by teachers, students, parents, and administrators. They should include estimates of their cost-effectiveness. Finally, they should result in a formal report to the state's Department of Education.

The General Assembly has maintained the experimental nature of the program by continually appropriating monies to the Bureau of Instruction rather than to the Foundation Program. The Department of Education and the state Board of Education have interpreted "experimental" as a gradual phasing in of districts and in 1982 eliminated the competitive grant process in favor of a unit funding formula open to all school districts. As a result funding has been committed to 171 districts. The funding formula is biased toward small districts, providing considerably more per student funding to them. It allows districts to serve five perent of their students and ignores different student ability levels in different districts, thereby resulting in inequitable program availability. Furthermore, the seventy-five student per unit requirement forces small districts to use more lenient identification procedures, while forcing larger districts to be more stringent.

RECOMMENDATION

8. The Board of Education should revise the current funding guidelines to allow districts to serve more than five percent of the district total or per grade when the percentage of eligible students is greater. The Advisory Council should be respon-

sible for reviewing and approving all program requests beginning in the 1984-85 school year. The current unit amounts should be used as the maximum limit a district may receive based upon program approach, grades served, types and numbers of gifted and talented students served and evaluation results. The purpose of funding in 1984-1986 should be the development and evaluation of alternative program approaches.

9. The Advisory Council, through the Department of Education, should make special experimental grants to a sample of districts willing to participate in the Council's research project to develop, identify, and test alternative programming, curriculum and identification methods.

The Department has failed to implement several objectives of the Ten-Year Plan, including staffing, preparation of a coordinator's guide, and establishment of an Advisory Council.

School districts indicate the need for more assistance from the state's Department of Education in such areas as programming, curriculum development, training, identification and evaluation. The Advisory Council will also require staff assistance to carry out its functions. Currently the Department has only one full-time person assigned to the program.

RECOMMENDATION

10. As called for in the Ten-Year Plan for Gifted Education, the Department of Education should increase by at least three (for a total of four) the number of full-time personnel assigned to the administration of the gifted and talented program in the Bureau of Instruction. These persons should possess strong background experience (Master's degree or equivalent) in gifted and talented education. As a group they should represent expertise in the areas of program design, curriculum, identification and evaluation. These persons should be responsible for technical consultation and assistance to the local districts, oversight and evaluation, and providing staffing to the Advisory Council.

The estimated cost of this recommendation is $100,000 per year.

Recommendations 6 through 10 were not contested by the Department of Education and were adopted en masse by the Committee.

FOOTNOTES

1. Joyce Van Tassel-Baska, *An Administrator's Guide to the Education of Gifted and Talented Children* (National Association of State Boards of Education, Washington, D.C., 1981).

2. Ibid, page 6.

3. Ibid.

4. *Education of Gifted and Talented Pupils* (California State Department of Education. Sacramento, California. 1979), pages 13-14.

5. Edwina Pendarvis, "Programs for Gifted Children," Kentucky Department of Education, 1977, page 13.

6. Van Tassel-Baska, pages 17-19.

APPENDIX A

Comparison to the Seven Surrounding States

To determine how Kentucky's gifted and talented (G/T) education program compares to the programs in surrounding states, information was gathered from a variety of sources, including the states' statutes, documents produced by national gifted/talented organizations, and interviews with and documents provided by the states' program heads. Information was gathered on six areas: definition, statutory approach, approaches to administration and funding, enrollment and expenditures, identification, and teacher requirements.

In summary, it was found that Kentucky's program shares several similarities with the programs in the seven surrounding states. The experimental nature of Kentucky's gifted/talented program is one major aspect found to be unique. In the remaining areas studied, however, the approaches and policies adopted in Kentucky are to be found in at least one other of the surrounding states, and usually in a majority of them. Enrollment figures from 1980-81 indicate Kentucky ranks fifth in percentage of total enrollment served (1.4 percent) in gifted/talented programs. This percentage will increase to almost five percent in 1983-84. In 1982-83, Kentucky ranked fourth in percentage of total education budget spent on gifted/talented education; however, the substantial increase in gifted/talented funds appropriated by the legislature for 1983-84 (from $2,131,000 in 1982-83 to $5,082,000 in 1983-84) will bring Kentucky much closer to the top of the list. Four of the surrounding states share Kentucky's permissive statutory approach to gifted education, while three mandate a gifted program. Kentucky's practice of funding local districts through competitive grants is also used in three of the surrounding states. Four of the surrounding states fund and administer the gifted program as part of their special education or exceptional education program. The definition of gifted and talented education used in Kentucky is similar to the definitions in four of the seven surrounding states, all of which are modeled after the 1972 United States Office of Education definition. States not modeled after this federal definition have narrower definitions, recognizing only intellectual ability. Kentucky's multiple criteria approach to the identification of gifted students is similar to that found in almost all of the surrounding seven states. Gifted/talented teacher qualification requirements vary among the states, with no particular approach dominating. Several states including Kentucky require no additional study or experience to qualify as a gifted/talented teacher. Kentucky, however, has adopted certification requirements to take effect on a mandatory basis in 1986.

Enrollment and Expenditures

In an effort to establish the relative emphasis given to G/T education in each state, several tables comparing enrollment and expenditure figures were completed. Table A-1 gives the total enrollment, the G/T enrollment and the percentage of students in each state enrolled in a G/T program.

TABLE A-1

GIFTED ENROLLMENT IN SURROUNDING STATES
1980-81

State	Total Enrollment	G/T Pupils Served	Percentage of Total Enrollment Served
Kentucky	**669,798**	**9,208**	**1.4%**
Illinois	1,983,463	70,000	3.5%
Indiana	1,055,589	23,000	2.2%
Missouri	844,648	8,868	1.1%
Ohio	1,957,381	30,000	1.5%
Tennessee	853,569	10,000	1.2%
Virginia	1,010,371	NA	—
West Virginia	383,503	4,500	1.2%

SOURCES: (1) *Digest of Education Statistics*, 1982.
(2) *A policymaker's Guide to Issues in Gifted and Talented Education.*

Kentucky ranks fourth in percentage of total enrollment served, with 1.4 percent. It is important to remember that the percentage of total enrollment that a state serves in a G/T program does not by itself measure the degree of emphasis that state has placed on G/T education. It may be the case that although a high percentage of students are served, the amount spent per pupil is small enough that the quality of the program is questionable. On the other hand, some states which have chosen to serve a smaller percentage of their total enrollment have also appropriated enough money for high per pupil expenditure and, possibly, a more effective program. Table A-2 lists each state's total expenditures on education and on G/T education. The percentage of the education budget spent on G/T is given as well. Here, it can be seen, Kentucky ranks fifth. However, G/T appropriation for 1983-84 is more than double the amount for 1982-83. With this increase, Kentucky will be much closer to the top of the list.

TABLE A-2

GIFTED EXPENDITURES IN SURROUNDING STATES
1982-83

State	Total Education Expenditure	Gifted/Talented Expenditure	Percentage
Kentucky	**961,003,400**	**2,131,000**	**.22%**
Illinois	2,202,800,000	5,703,000*	.26%
Indiana	1,094,506,914	185,000	.02%
Missouri	699,000,000	3,020,372	.43%
Ohio	1,944,276,850	4,255,710	.22%
Tennessee	FIGURES NOT AVAILABLE		
Virginia	1,280,258,425	3,271,900	.26%
West Virginia	587,846,486	4,455,000**	.76%

*Illinois—Locals contributed additional $8,757,833 (74% of districts reported some local contribution), making grand total of $14,467,833.

**West Virginia—G/T funds represent estimated state reimbursement to West Virginia's 297 G/T teachers, at an average salary of $15,000. Total figure does not include school for the deaf and blind.

SOURCE: Program Review & Investigations Staff Survey of Seven Surrounding States.

Permissive vs. Mandatory Statutes

One important decision facing states creating gifted legislation is whether to make that legislation madatory or permissive. Table A-3 indicates that Kentucky and three surrounding states have permissive gifted/talented legislation. Four states have mandatory legislation.

The states studied do not all fall neatly into groups. There are a variety of statutory approaches to the creation of gifted programs and the question of mandatory vs. permissive is influenced by other aspects of a state's overall approach. A summary of each state's approach concerning mandatory or permissive gifted/talented legislation follows.

TABLE A-3

MANDATORY VS. PERMISSIVE STATUTES

State	Type of Statute
Kentucky	**Permissive**
Illinois	Permissive
Indiana	Mandatory[1]
Missouri	Permissive
Ohio	Permissive
Tennessee	Mandatory
Virginia	Mandatory
West Virginia	Mandatory

[1]Requires only that state board "establish a program for gifted children." Does not mandate that gifted/talented students be served.

Two states, Tennessee and West Virginia, have a very similar statutory approach to gifted education. Both states provide legislative definitions grouping gifted and talented students under the broad heading of handicapped (Tennessee) or exceptional (West Virginia) children. This is not unusual. A national survey of G/T education programs undertaken by the Council for Exceptional Children revealed that 54 percent of the states that have enacted G/T education legislation have established a direct statutory relationship between gifted and special education. These statutes are modeled after Public Law 94-142, which guarantees the right of all exceptional or handicapped individuals to a public education in accordance with their needs. By including giftedness within the definitions of handicapped or exceptional, Tennessee and West Virginia **mandate** that gifted students be served.

Indiana and Virginia statutes mandate gifted education as well, but neither state defines gifted students as exceptional or handicapped. Virginia's statutes mandate gifted/talented education by stating that:

> each school division shall offer differentiated instructional opportunities in accordance with guidelines of the Board of Education for identified gifted and/or talented students.

Indiana's gifted education statutes, while technically mandatory, only require that the state board "establish a program for gifted children." Because the statutes do not man-

date that the state's G/T students be served, Indiana might more naturally be grouped with those states whose G/T education legislation is permissive.

Illinois, Ohio, and Missouri, as well as Kentucky, are states with permissive G/T legislation. Ohio is typical of this approach, specifying that the state Board of Education shall:

> . . . encourage the development of special programs of education for academically gifted, shall employ competent persons to analyze and publish data, promote research, advise and counsel with boards of education and encourage the training of teachers in the special instruction of gifted children.

Much like Ohio's, the Illinois statute establishing the Illinois Gifted Education Program states that the purpose of its enactment is:

> . . . assisting and encouraging local school districts in the development and improvement of an education program that will increase the educational services of the public schools of Illinois for gifted children . . .

Missouri statutes make the Department of Elementary Education responsible to approve:

> . . . applications for special programs for gifted students and provide state aid to school districts for such programs.

Definition and Identification

The definition of giftedness chosen by a state describes and limits the students to be served in that state's program or programs. Four of the surrounding states (Illinois, Indiana, Ohio, and Virginia) as well as Kentucky have adopted variations of a model definition created by the U.S. Office of Education, Department of Health and Welfare, in 1972:

> Gifted and talented children are those identified by professionally 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 demonstated achievement and/or potential ability in 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

Originally, this model definition identified a sixth area of giftedness, psychomotor ability. This area is no longer included in the federal definition, and some states (including Kentucky) which adopted the original federal model have now in turn

deleted psychomoter ability as a recognized area of giftedness from their local definitions. There are small differences in the definitions developed by the states that modeled their definitions of giftedness after the example provided by the U.S. Department of Education, but the thrust of each of these definitions is similar.

The surrounding states not adopting a variation of the federal definition or at least not accepting all of the areas of giftedness recognized in the federal model have among themseleves a similarity in definition. Each of these states defines giftedness much more narrowly by recognizing only precocious or exceptional intellectual ability as indicative of giftedness.

Table A-4 lists the areas of giftedness recognized by Kentucky and the surrounding states. One interesting finding illustrated in Table A-4 is that the only area of giftedness recognized by all eight states is intellectual ability.

The extent to which the policies and procedures used by the states to identify gifted students actually reflect an approach consistent with that state's definition of giftedness is uncertain. Discrepancies do exist. An example of this can be seen in Kentucky, where "leadership" is one of the areas included in the statutory definition. The Department of Education guidelines, however, do not include "leadership" in their breakdown of the various areas of giftedness, nor do the guidelines provide identification procedures for recognizing students with exceptional leadership abilities.

Differences found in identification procedures among the surrounding states are largely attributable to the differing areas of giftedness included in each state's definition of giftedness. Among states with similar definitions of G/T, there are only minor differences in recommended identification procedures. All of the states sharing Kentucky's definition of giftedness endorse the use of multiple criteria, including: individual IQ tests, group IQ tests, individual achievement tests, group achievement tests, creativity tests, behavioral checklists, grades, peer moninations, parent nominations, teacher nominations, and personality inventories. Generally a student is identified by several of these items, one of which must be a high achievement or IQ test score. Those states which have limited their definition of giftedness to include only intellectual ability have a much narrower selection process.

TABLE A-4

AREAS OF GIFTEDNESS RECOGNIZED BY KENTUCKY AND THE SURROUNDING STATES

	Intellectual Ability	Specific Academic Aptitude	Visual and Performing Arts	Creative	Leadership	Psycho-Motor Ability
Kentucky	X	X	X	X	X	
Illinois	X	X	X	X		
Indiana	X	X	X	X	X	
Missouri	X[1]					
Ohio	X	X	X	X	X	X
Tennessee	X	X				
Virginia	X	X	X	X	X[2]	
West Virginia	X					

[1] Uses term "Mental Capacity"

[2] Uses term "Psycho-Social Ability"

SOURCE: Program Review & Investigations Staff Survey of Seven Surrounding States.

Approaches to Administration and Funding

The seven surrounding states offer a variety of approaches to the administration and funding of their G/T programs. Tables A-5 and A-6 list these alternatives. The two areas have been grouped together because they are often related.

In Tennessee and West Virginia, where statutes link G/T education to special education, the G/T programs are administered as part of special education. Funding is handled as part of the overall special education budget. Gifted funding for districts is determined by the number of identified gifted students being served. In West Virginia, for example, gifted children are weighted three times the normal. Normally the state board will reorganize and sanction the creation of fifty-five professional positions for every 1,000 students. But, because gifted students are weighted three times the normal (as are all exceptional children in West Virginia), 165 professional positions are created for every 1,000 identified gifted students.

While the administration of Ohio's and Virginia's G/T program is grouped within special education, both states fund G/T education separately. Ohio funds its districts through a funding units formula. The formula dictates that:

> . . . the amount shall be the sum of the unit teachers' training level and years of experience . . . , plus fifteen percent of such allowance plus nine hundred and fifty dollars.

Illinois reimburses districts on a formula basis for each identified and participating gifted child. Additionally, Gifted Area Service Centers, which provide assistance to local district program coordinators, are awarded contracts annually on a competitive basis. Illinois' Gifted Education Program is administered in the Department of Federal and State Grants, Educational Innovation and Support Section.

Missouri's gifted program is administered by the state Board of Education. Local districts apply for grants, but must provide 50 percent of the funds for the program. Indiana administers their G/T program through the Division of Curriculum. Grants are awarded on a competitive basis.

TABLE A-5

AGENCY ADMINISTERING PROGRAM

STATE	AGENCY NAME
Kentucky	**Department of Education, Bureau of Instruction**
Illinois	Department of Federal and State Grants, Educational Innovation and Support Section
Indiana	Separate from Special Education within Division of Curriculum
Missouri	State Board of Education
Ohio	Grouped with Special Education
Tennessee	With Handicapped Education
Virginia	Part of Exceptional Children
West Virginia	Part of Exceptional Children

SOURCE: Program Review & Investigations Staff Survey of Seven Surrounding States.

TABLE A-6

FUNDING TYPE OF PROGRAM

STATE	G/T FUNDED THROUGH SPECIAL EDUCATION	TYPE OF FUNDING
Kentucky	No	Competitive Grants
Illinois	No	Annual Application on a Formula
Indiana	No	Competitive Grants
Missouri	No	Discretionary Grants
Ohio	No	Unit Formula Funds Teachers
Tennessee *	Yes	Identified G/T Students weighted and receive 3 times the normal funding.
Virginia	No	Add-on of $80 to the regular reimbursement of $1,400 for each student.
West Virginia	Yes	Identified G/T students weighted and receive 3 times normal funding.

* Some school districts use Chapter II-C funds (federal block grants) for gifted education.

SOURCE: Program Review & Investigations Staff Survey of Seven Surrounding States.

Requirements of G/T Teachers

The qualifications required for G/T teachers vary considerably from state to state. However, the approaches fall naturally into three catagories. The first category includes the states (Kentucky, Indiana, Missouri, Virginia) which do not require any special background before teaching the G/T. The second group consists of states (Illinois, Ohio, West Virginia) which require additional college hours, experience with G/T students or a combination of the two. The third approach is that taken by Tennessee. There, G/T teachers must have a Global Special Education Certificate. The training involved in attaining this certificate focuses largely on the mentally retarded and only a minimal amount of attention is given to G/T education. A state-by-state breakdown follows.

Indiana. A "permission endorsement" is presently being approved by Purdue and ISU. It is twelve hours: an introductory course, a curriculum course, an identification course, and a practicum.

Kentucky. No requirement other than the appropriate certificate for grades or subject areas with which they will work.

Missouri. Instructional personnel in the staff positions for which state aid is approved must hold valid Missouri teaching certificates at the grade level(s) or in the subject area(s) which they are assigned to teach.

Ohio. The G/T coordinator shall meet the following qualifications:

- hold a valid teaching certificate,
- hold a Master's Degree,
- have coursework in psychology and education of gifted, and
- show evidence of a minimum of two years successful teaching experience.

Virginia. State does not have gifted certificate.

West Virginia. To be certified as a gifted teacher you must:

- already be a licensed teacher,
- have eighteen semester hours of gifted coursework, and
- have practicum experience.

APPENDIX B

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF EDUCATION
FRANKFORT, KY. 40601

RAYMOND BARBER
SUPERINTENDENT OF PUBLIC INSTRUCTION

September 23, 1983

Representative Hank Hancock, Chairman
Program Review and Investigations Committee
State Capitol
Frankfort, Kentucky 40601

Dear Representative Hancock:

Pursuant to your request are the following responses of the Department of Education to the Legislative Research Commission's recommendations regarding Kentucky's gifted education program:

Recommendation	Response
#1	*Accept*
#2	*Accept with the following changes* in the membership of the Advisory Council: 1) instead of having 2 teachers, include 1 regular classroom teacher, 1 teacher of gifted pupils, and 1 coordinator of a local district gifted education program; 2) instead of having 2 professors of gifted education, include 1 professor of gifted education and 1 professor with expertise in the area of testing and measurements
#3	*Not accept*, based on the fact that the Advisory Council (as established in Recommendation #2) is given the responsibility of determining pupil identification measures and procedures, and this recommendation only serves to constrain their efforts
#4	*Accept*

#5	*Accept, contingent upon adequate funding*
#6	*Accept, contingent upon adequate funding*
#7	*Accept, contingent upon adequate funding*
#8	*Accept*
#9	*Accept, contingent upon adequate funding*
#10	*Accept, contingent upon adequate funding*

I want to commend the Legislative Research Commission's staff for the thoroughness and excellent quality of their report. We look forward to discussing the recommendations and responses with you on October 4, but please do not hesitate to contact me in the interim should questions arise.

Sincerely,

Raymond Barber
Superintendent of Public Instruction

RB/sl

APPENDIX C

KENTUCKY ASSOCIATION for GIFTED EDUCATION Inc.

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RESPONSE TO THE LRC STAFF REPORT AND RECOMMENDATIONS PRESENTED TO THE PROGRAM REVIEW AND INVESTIGATIONS COMMITTEE

OCTOBER 4, 1983

TO: Rep. Hank Hancock, Chairman; Sen. John Doug Hays, Vice-Chairman; and Members: Rep. Arnold, Sen Bailey, Rep. Barrows, Sen. Huff, Rep. T. Jones, Sen. Karem, Sen. Martin, Rep. Moberly, Rep. O'Brien, Sen. O'Daniel, Rep. Rattliff, Sen. Rogerts, Rep. Schmidt, and Sen. Sheehan

FROM: The Kentucky Association for Gifted Education (KAGE) Board of Directors

The KAGE Board of Directors, on behalf of the more than 3200 KAGE members in over 160 Kentucky School districts, wishes to express our appreciation to the members of the General Assembly for the support they demonstrated on behalf of education for the gifted through the significant 82-84 appropriation. Understandably, such an appropriation called for an accounting of results; hence, the study delegated to the Program Review and Investigations Committee that has been presented for consideration today.

This study, undertaken "to determine the effectiveness, worth, and advisability of continuing gifted education beyond 83-84," is the first comprehensive report on the strengths and weaknesses of this relatively new field of education in Kentucky. The staff and committee members are to be commended for this thorough study that not only investigates what has happened in Kentucky since 1978, but does so in the context of recent historical developments since 1970, sound theoretical information, and attention to Kentucky's position in gifted education as compared to the seven surrounding states.

Furthermore, this study emphasizes the special educational needs of gifted children, the great strides schools in Kentucky have made to meet these needs, and the tremendous parent and community support that is in evidence across the Commonwealth. KAGE feels this study will be the springboard for assuring that gifted education programs:

1) provide appropriate and quality instruction for Kentucky's gifted youngsters,

2) become an integral part of Kentucky's total education plan, and

3) demonstrate the most effective and efficient use of the resources of Kentucky's Taxpayers.

Having acknowledged the general positive impact of this study, KAGE respectfully submits the following responses to the specific recommendations:

1. Approve Recommendation 1 with the following comments and qualifications:

Not unexpectedly, this study reflects a need to continue programs for gifted children. Also, not unexpectedly, KAGE agrees with this recommendation. We also agree that the $500,000 appropriation to hire additional Department of Education staff with expertise in gifted education, design an in-depth evaluation system, and develop curriculum is very much needed.

However, we think gifted education should no longer be considered "experimental." In 1982 we felt four years of "experimenting" was long enough; certainly six years is too long and eight years of "experimenting" is unacceptable. The very term "experimental" used in the language of gifted education legislation has caused many of the problems this study addresses such as establishing and reviewing long-term goals, developing acceptable evaluation procedures and expanding Department of Education staff to provide for an expanding program. KAGE proposes that 1984 legislation on gifted education delete the word "experimental" when addressing programs for gifted children. KAGE maintains that gifted education needs to take its rightful place among those programs for other special needs populations during the 1984 General Assembly. Other states in the South have had an ongoing program for gifted for two decades or more. It is time for Kentucky to join ranks with our sister states -- North Carolina, Georgia, and Florida for example.

Gifted programs have proven themselves in Kentucky. True, an objective, systematic, statewide procedure for evaluating these programs has not been developed due to 1) the clamor from local school districts to receive funds for direct services for children, and 2) the tentative nature of the funding. The greatest number of children possible have received services because the Department of Education has chosen to funnel the greatest amount of funding possible to local districts, while reserving the absolute minimum for administrative staffing -- that being one full staff member -- the same number as when Kentucky first began considering programs for gifted in 1976 and when there were only 23 districts to be served in 1978. This one staff person could in no way develop the comprehensive evaluation plan suggested in this report while providing

teacher training, technical services, program direction, and basic administrative duties involved in serving 171 school districts now conducting programs. KAGE finds no fault with the decisions the Department of Education has made to date given the options that have been available, and we are confident that with the adequate, qualified staff, recommended in this report, procedures can be developed and data can be gathered to account responsibly for the relatively small expenditure needed to appropriately serve gifted children.

In conclusion on this point: independent research studies of various programs have been conducted which empirically indicate the effectiveness of instructional strategies predominantly used in gifted programs in Kentucky. We submit for your consideration summaries of two such studies, one from a school district in northern Kentucky, one from the western part of the state (see Appendix). While we agree that the legislature needs hard data from a larger sampling, we emphasize our confidence that with increased KDE staff who are trained in the field of gifted education, working with input from the Advisory Council recommended by this study, this data base can be generated for use in this and future funding periods. Therefore, we reaffirm that gifted programs should no longer continue as "experimental."

A second important point regarding Recommendation 1: While KAGE can accept maintaining the number of gifted units during 84-85, the funding level of these units, which has remained the same for three years -- $19,500, must be increased by 10% to $21,450 during the first year of the biennium at an increased cost of $425,650. This would, in some measure, take in account inflation, over a 4 year period.

Subsequently, by the beginning of the 85-86 school year, when based upon the recommendations in this report regarding KDE staff and Advisory Council, an evaluation system will be in place, 1) the funding of these units should increase by 3.5% or $22,200, and 2) the number of these units should increase to eliminate the ceiling now imposed. A district is currently restricted from applying for more than 3 units regardless of the number of gifted children identified. These two provisions could be accomplished for an increased cost in the second year of the biennium of approximately $4 million.

2. Approve Recommendation 2 with the following qualifications and contingent upon funding to increase the State Department of Education staff in gifted education.

The idea of the Advisory Council to establish policy for gifted education in Kentucky is educationally sound; however, the staff in the State Department of Education must be increased with personnel who are well-qualified in gifted education as stated in Recommendation 10 if the scope of responsibilities of the Advisory Council is to be achieved. The advisory nature of the Council is key to the facilitation of gifted education, but the Advisory Council will depend upon the staff in the State Department in order that planning, implementing, and evaluating can occur in a comprehensive manner commensurate with the powers and duties ascribed to the Council. <u>These powers and duties must remain advisory in nature or else the Council will inhibit rather than facilitate the development of gifted education in Kentucky</u>.

In reference to the membership of the Advisory Council, we recommend the following:

1) one professor of education with expertise in gifted education should have expertise in education evaluation as well; and
2) a program coordinator of gifted education should be added to the membership for a total of 10 voting members.

3. KAGE does not deem it appropriate to accept Recommendation 3 at this time, in that we accept that the KDE, working with the Advisory Council (outlined on Recommendation 2), define the identification criteria. Therefore, it does not seem appropriate to specify either specific instruments to be used in identification or the abilities which must be tested.

4. Accept Recommendation 4 and encourage the articulation of in-class and out-of-class learning opportunities to insure continuity and appropriateness of school experiences for gifted students.

5. Accept Recommendation 5 with the addition of attention to the needs of very young gifted children. It is recommended that Recommendation 5 read as follows:

"The Department of Education should assist local districts in identifying and/or developing special procedures to ensure that minority, [and] handicapped, and very young (K-3) students are identified and served.

6. Approve Recommendation 6 contingent upon funding for increased staffing of qualified persons in the Department of Education as outlined in Recommendation 10.

In addition, we recommend that the Advisory Council study Standard VII of the Accreditation standards with the intention of making improvement to strengthen this standard so that accreditation teams have a more viable component to review.

7. Approve Recommendation 7 with this expressed concern: Although we recognize the need for cost-efficiency studies, it must be kept in mind that some very important gains cannot be measured. Quoting James Gallagher, author of TEACHING THE GIFTED CHILD and respected authority in the field:

"How can we measure the sonata unwritten, the curative drug undiscovered, the absence of political insight?"

Moreover, because of the fact that gifted students score in the upper 3 to 5% on traditional standardized tests of achievement, gains to measure growth are severely limited by the ceiling effect of these tests. While some growth might be observable, these students frequently score sufficiently high initially so that there is no place else to go. Consequently, growth and achievement as determined by standard measures must be abandoned while more sophisticated, and specialized instruments must be identified if objective data is to be collected. These specialized tests are expensive as well as time consuming to administer on a pre- and post-test basis and for that very reason, districts have not been able to afford to use such instruments. This is all the more reason we support the recommended funding for developing a much needed acceptable evaluation procedure.

8. Approve Recommendation 8 with the following qualifications:

Sentence one, approve.

Sentence two, approve with the following addition:

> The Advisory Council should be responsible for reviewing and approving the recommendations of the Department of Education staff relative to all program requests beginning in the 1984-85 school year.

Sentence three, approve with the following deletion and additions:

> One of the purposes of funding in 1984 to 1986 should be the [development] identification, evaluation, and refinement of alternative program approaches which already exist in Kentucky.

9. Approve Recommendation 9 contingent upon appropriate funding and with the recommendation that the word "develop" be changed to "refine."

10. Approve Recommendation 10 with emphasis on the fact that persons employed by the Department of Education must have strong background experience in gifted and talented education.

Furthermore, we recommend that at least one of the people to be employed as specialists in gifted education have as an area of expertise, tests and measurements training as they relate to identification and program evaluation.

In order to identify candidates for these staff positions, it is recommended that an intensive search be conducted through gifted education journals such as THE GIFTED CHILD QUARTERLY, THE JOURNAL OF THE EDUCATION OF THE GIFTED, etc.

Finally, KAGE suggests the following as Recommendation 11:

11. The Department of Education should develop regulations to insure that school districts receiving state gifted funds utilize teachers in these programs with appropriate training in gifted education. Such regulations should be consistent with the preparation program leading to certificate endorsement for gifted education which was approved by the State School Board September 20, 1983.

Chairman Hancock and Members of the Committee, thank you for your attention and for giving us the opportunity to review this important study and present our response for your consideration. It is our hope that every member of the General Assembly will read this report undertaken by your staff. We will be happy to answer any questions you may have.

Respectfully submitted,

Doris Mills

Doris Mills
KAGE Business Officer

September 29, 1983

Abstract of Research Conducted in Fort Thomas Schools

During the 1983-83 school term, the third, fourth, fifth, and sixth grade students in the academically gifted program in this school district were the subjects of a study to determine whether or not originality and elaboration, components of the creative process, were skills which could be taught to gifted students.

The setting for this study consisted of all three elementary schools located in the school district. The school district can be described as a bedroom community for a metropolitan area and is composed of middle and upper middle-class white collar families.

The population of this study originally was composed of 119 third, fourth, fifth, and sixth grade Caucasian students who were identified as gifted. Identification consisted of Cognitive Scale Index scores of 120 or above, and achievement scores two grade levels or above grade placement in the areas of reading and math concepts and application as measured by group tests. Due to 11 students being ill on the day one of the pre- or post-tests was administered, two students moving from the district, and one student who was dropped from the program, the groups in this study consisted of 105 subjects. These pupils were enrolled in a differentiated educational program for gifted students. These students, from all three elementary schools in the district, attended a pull-out program in one of the elementary schools one day per week. Sixty students were in the experimental group and 45 students were in the control group. The experimental group and the control group attended separate classes for gifted students. One teacher was responsible for third and fourth grade students in both the experimental and control groups; the second teacher was responsible for the fifth and sixth grade students in both the experimental and control groups. The treatment for the experimental group consisted of introducing intervention strategies designed to increase skills in the areas of originality and elaboration, as well as teach the students the

meaning of originality and elaboration as defined in the study. The experimental group completed 12 intervention strategies from October 1982 through March 1983.

Figural Form A of the Torrance Test of Creative Thinking and Williams' Test of Divergent Thinking were administered to both groups the weeks of October 4 and 11, 1982. Figural Form B of the Torrance Test of Creative Thinking and the Williams' Test of Divergent Thinking were administered as post-test measures the weeks of March 21 and 28, 1983.

The groups did not differ significantly on the Cognitive Scale Index scores and the pretest scores on the Williams' Test of Divergent Thinking or the Torrance Test of Creative Thinking in the areas of originality and elaboration.

The subjects in the experimental group made significant gains in test scores for originality and elaboration on both the Williams' Test of Divergent Thinking and the Torrance Test of Creative Thinking. The control group did not have any significant gain scores for originality or elaboration on the test measurements. This would indicate that originality and elaboration, components of the creative process, can be taught to a group of gifted students.

TORRANCE TEST OF CREATIVE THINKING

	ORIGINALITY		ELABORATION	
	PRETEST	POSTTEST	PRETEST	POSTTEST
CONTROL GROUP	102.0	110.7	88.7	84.4
EXPERIMENTAL GROUP	96.3	126.6	82.3	102.8

WILLIAMS' TEST OF DIVERGENT THINKING

	ORIGINALITY		ELABORATION	
	PRETEST	POSTTEST	PRETEST	POSTTEST
CONTROL GROUP	22.0	23.2	9.5	7.9
EXPERIMENTAL GROUP	22.3	25.7	7.9	11.6

These are raw scores. Statistically, there was a significant gain on both tests in originality and elaboration for the experimental group. There was no significant gain on both tests in originality and elaboration for the control group.

Introduction

During the 1981-82 school year, Daviess County adopted a specific instructional technique for use in its Gifted and Talented Education program. The technique adopted was based upon Dr. J.P. Guilford's well-know theory, the Structure of Intellect (SOI), and the method of instruction growing out of that theory. The SOI instructional method and the tests for measuring the effects of using the method were developed by Dr. Mary Meeker who had studied with Guilford. Daviess County adopted the SOI method for use with Gifted and Talented children because of: (a) its demonstrated educational soundness, and (b) its provision for objective evaluation of program results. The overall goal of SOI instruction is to increase performance in five areas of thinking which have been demonstrated as affecting academic achievement. These five areas are: (a) Cognition or comprehension, (b) Memory, (c) Evaluation or decision making ability, (d) Divergent Production or the ability to generate new information from existing facts, and (e) Convergent Production or the ability to classify the components of given information.

Procedures

During the Spring of 1980, third-grade students from two adjacent counties, Daviess and Ohio, were identified as qualifying for placement in Gifted and Talented Educational programs. Thirty-four identified students were then selected from each of the two counties for program evaluation purposes. Daviess County planned to use and evaluate the effects of SOI instruction during the 1981-82 school year; students in Ohio County would receive no intervention due to lack of funding.

At the beginning of the 1981-82 school year, the 68 identified students in Daviess and Ohio Counties took the Structure of Intellect/ Learning Abilities (SOI/LA) test developed by Meeker. (Norms, reliability coefficients, and validity coefficients have been demonstrated for the test and are reported in the test manual.) Then, identified students in Daviess County received SOI instruction for from one to three hours per week throughout the school year. Finally, the SOI/LA test was readministered to all 68 identified students. It was expected that the SOI/LA test scores of the identified students in Daviess County who were exposed to the SOI intervention program would be superior to the scores of their identified counterparts from Ohio County who did not receive the intervention.

Results

The hypothesized results were demonstrated for all five factors of the SOI/LA test as shown on the attached data sheet. That is, gains in thinking skills were greater for those Gifted and Talented students receiving the SOI intervention than for those Gifted and Talented students who received no intervention. Although the data on the attached sheet suggest that, in general, the Daviess County students outperformed the Ohio County students prior to any intervention, that initial advantage was compensated for by using a statistical procedure, Analysis of Covariance (ANCOVA). The ANCOVA analyses verified that, despite initial differences between the groups, gains for the Daviess County group were significantly ($p < .01$) greater than those for the Ohio County group on all of the SOI/LA factors. The computer printouts for the ANCOVAs are available upon request.

References

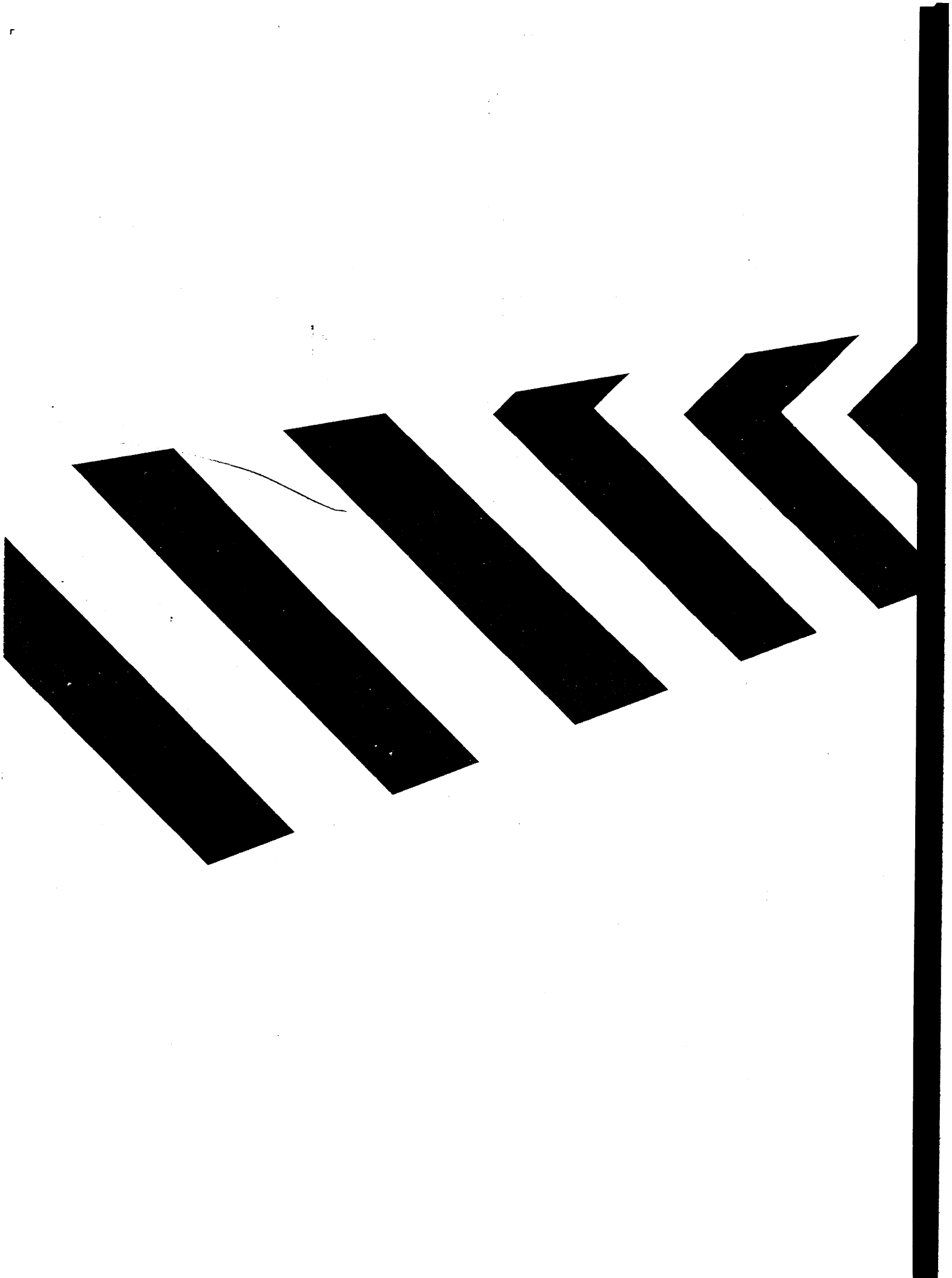
Guilford, J.P. The Structure of Intellect. Psychological Bulletin, 1956, 53, 267-293.

Guilford, J.P. The Nature of Human Intelligence, New York, NY: McGraw-Hill, 1967.

Guilford, J.P. Intelligence, Creativity, and Their Educational Implication. San Diego, CA: Robert R. Knapp, 1968.

Meeker, M.N. The Structure of Intellect: Its Interpretation and Uses. Columbus, OH: Charles D. Merrill, 1969.

3. Proposed Budget for 84-86

		83-84	84-85	85-86
1983-84 Gifted Education Appropriation:				
1983-84 funding level		$5,087,000		
Based on 257 units X 19,500 =	$5,011,500			
KDE Administrative =	75,500			
	$5,087,000			
1984-85 Proposed Gifted Education Appropriation:				
10% increase of funding level of 257 units	$425,650			
19,500 X 10% = $ 1,950				
19,500 + 1950 = $ 21,450				
257 X 21,450 = $425,650				
Accept recommendation of LRC for increasing KDE staff to 4 persons, establishing Advisory Committee, etc.	$500,000			
Total Increase 84-85	$925,650			
Total Proposed Budget for 84-85			$6,012,650	
1985-86 Proposed Gifted Education Appropriation:				
Increase unit funding by 3.5% or $22,200				
Increase number of units from 257 to 434 (Gifted Education units serve 75 students -- the equivalent of one day per week.				
Based on 5% of school population to be served, there are approximately 32,554 students needing services.				
32,554 ÷ 75 = 434 units needed)				
434 units X $22,200 =	$9,634.800			
LRC Recommended Amount	500,000			
Total Proposed Budget for 85-86				$10,134,800

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