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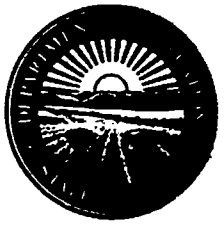
ABSTRACT

This report presents model educational programs for gifted and talented students developed by six Ohio school districts. Provided for each program is information on: identifying characteristics (district, location, school population, project director); project goals, objectives and activities; project results; promising practices and recommendations; and project products. The following projects are included: (1) Major Work Partnership--a model of teacher training for gifted education (Cleveland City Schools) which fosters a mentoring relationship between experienced Major Work teachers and regular teachers; (2) a transitional restructured elementary gifted program (Forest Hills) which is moving to provide support to teachers serving gifted students in regular classrooms; (3) the Muskingum County 2-year staff development project for teachers of gifted students in the regular classroom; (4) serving secondary gifted students in the regular classroom setting (Reynoldsburg); (5) Talents Unlimited (Sidney) which focuses on comprehensive curriculum development at the high school level; and (6) the Junior High Opportunity Power Project (Toledo) which serves underachieving gifted students in regular class programs. (DB)

Models for Providing a Continuum of Services to: Gifted Students

Research & Demonstration Series in Gifted Education

Ohio Department of Education
Columbus, Ohio
1989



September 1992

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Cover artwork by elementary and middle school students from the Federal Hocking Local School District (clockwise from left): Adam Fowler, Daniel Wiseman, Jeremy Dotson, Richie McFee, Chris Dixon, and Heidi Rasmusson.

STATE OF OHIO
DEPARTMENT OF EDUCATION
COLUMBUS
43266-0308

TED SANDERS
SUPERINTENDENT OF
PUBLIC INSTRUCTION

September 1992

Dear Colleagues:

Although Ohio has shared in the growth of programs designed to serve gifted youngsters, a dramatic decline in academic performance over the last two decades, coupled with national concern over American productivity, has renewed interest in providing appropriate educational opportunities for all students.

In Ohio, programs have expanded from serving gifted children in 8.6 instructional units in 1975 to serving 25,974 students through 515 state-funded units and 57,146 students through locally funded programs during the 1990-91 school year. Despite this apparent growth, an additional 137,843 students identified as gifted or talented received no special services in 1990-91.

Models for Providing a Continuum of Services to Gifted Students is the third of four publications that comprise the research and demonstration series in gifted education. In each of these publications, school district models designed to improve the quality of education for our most-able students are described. These models, which represent our best thinking, reflect Ohio's commitment to meet the unique and individual needs of each student.

I express my sincere appreciation to the many individuals at the local school district level for their energy and dedication, and to Nancy Hamant, consultant in the Division of Special Education, and Marlene Bireley, editorial consultant, who spent many hours preparing the model descriptions for publication.

It is our hope that as educators implement the recommendations contained in the research and demonstration series, all students, including those who are gifted and talented, will benefit from improved educational opportunities and experiences.

Sincerely,

Ted Sanders

Ted Sanders
Superintendent of Public Instruction

Preface

In March 1991, *Interacting for Quality Learning: A Gifted Education Strategic Plan for the 1990's* was published under the direction of the Task Force for Effectiveness of Programs for Gifted Children. Around the time the Task Force was established, Ohio's General Assembly appropriated funds to establish research and demonstration projects for the development of model gifted education programs in the following four priority areas:

- Identifying and providing services to underachieving gifted;
- Identifying and providing services to students who are gifted in the areas of visual and performing arts;
- Providing a continuum of services to gifted students; and
- Identifying creative-thinking ability.

Thirteen districts representing rural, urban, and suburban Ohio were awarded research and demonstration grants for implementation during the 1989-90 and 1990-91 school years. Four publications comprising the research and demonstration series in gifted education have been prepared to disseminate project findings and recommendations.

Underachieving Gifted

The first, *Models for Improving the Delivery of Services to Underachieving Gifted Students,* describes three projects that focused not only on identifying types of gifted underachievers, but also on providing services through unique instructional models. In Rocky River City Schools, a "teacher as researcher" model empowered regular classroom teachers to work with underachieving gifted students. In rural Putnam County, a combination of total staff development in grades 1-8 and the adaptation of a computer-based higher-order thinking skills program was explored. And, in urban Springfield, a broad-based assessment system was used to develop an identification/intervention system.

Visual and/or Performing Arts

In *Models for Improving the Delivery of Services to Gifted Students in the Areas of Visual and Performing Arts,* strategies for identifying students, delivering hands-on arts appreciation experiences, and the development of curriculum guides are described. In Defiance City Schools, regular education teachers were prepared to increase students' access to various art media. Wheelersburg City School students were taught to use computer technology as an art medium. Lastly, in Federal Hocking Local School District (Athens County), students were made aware of the artistic components of their rural environment through art experiences, interaction with local artisans, field trips, and slide presentations.

Continuum of Services

The third publication of the series, *Models for Providing a Continuum of Services to Gifted Students*, includes descriptions of six model programs that focused on the expansion of services in different contexts and grade levels. Districts awarded model projects in this priority area included Cleveland City Schools, Forest Hills Local Schools (Hamilton County), Muskingum County Schools, Reynoldsburg City Schools, Sidney City Schools, and Toledo City Schools. Various model programs, such as Major Works mentorships, Talents Unlimited, and Teacher-Leaders, are highlighted.

Creativity

The fourth and final publication in the research and demonstration series describes a *Model for the Identification of Creative-Thinking Ability*. One project was awarded in this priority area to the Upper Arlington City Schools. Project personnel believed that in order to provide appropriate educational services, the characteristics and needs of creatively gifted children should first be determined. The district's identification process, including research-based activities, standardized and performance-based assessment, and multiple resources and forms, are described in the publication.

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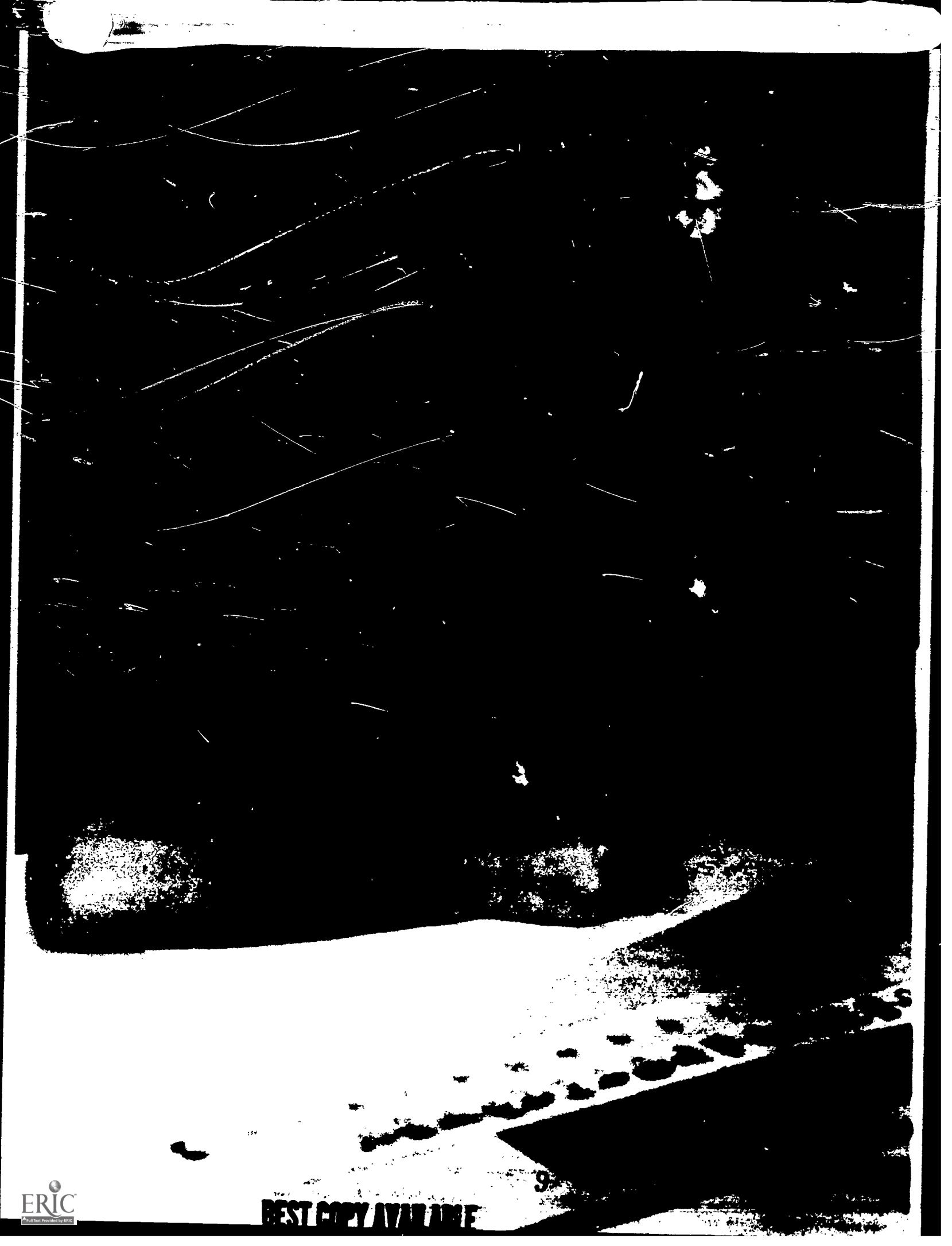

Introduction

Resource rooms or pull-out programs provide a haven for many gifted students, an opportunity to learn and coexist with intellectual peers, and a place where personal interests can be pursued and valued. But being gifted is a condition that exists continuously, not only for five hours per week and not only through a limited number of grades. To truly meet the affective and cognitive needs of gifted and talented children, educators must think in terms of the total educational process, from kindergarten through high school, and from Monday through Friday.

The concept of a continuum of services model has been in effect since the provision of an appropriate education for all students with disabilities was mandated. The continuum model recognizes that various levels of disability require different levels of intervention and that this intervention can and must be provided in a variety of settings. The adaptation of this model to the varying needs of those children that we label as gifted and/or talented has gained acceptance in the last few years, largely as a result of the work of those involved in the Pyramid Project (Cox, Daniel, & Boston, 1985). As the project staff gathered information about successful and prevalent gifted education projects around the country, they found that the two were not necessarily synonymous and, consequently, developed a pyramidal continuum of services model that ranged from regular class enrichment to full-time intensive classes for the highly gifted. The research of this group and the application of various components of this model throughout the country have prompted many gifted educators to advocate a broader continuum of services model than had previously existed.

The projects described in this publication have implemented a continuum of services model in various ways. All recognize the fact that changing teacher skills and attitudes is a critical component of establishing a continuum that functions beyond a paper model. Some have attempted to develop teacher skills on an "each one reach one" peer training model; others have attempted massive, districtwide staff development approaches. The funding available through each demonstration project was critical in providing outside consultants, stipends for extra work or university credit, and resource materials.

Project directors expressed the hope that the models implemented would continue beyond the life of the projects. That remains to be seen. It does seem clear that to move from the current, rather narrow program of the resource and/or self-contained classroom, to a richer, fuller continuum of services model will necessitate a rethinking of staff development, service delivery, and funding patterns. All three are critical components to the success of the change process. The six project staffs were provided with the funding to address staff development and service delivery issues. They were able to identify some promising practices and offer recommendations for others who wish to expand their own gifted education service models.

Reference

Cox, J., Daniel, N., & Boston, B. (1985). *Educating able learners.* Austin: University of Texas Press.

Major Work Partnership: A Model of Teacher Training for Gifted Education

Identifying Information

District:	Cleveland City Schools 1380 E. Sixth Street Cleveland, OH 44114 (216) 574-8516
Location:	Northeastern Ohio
School Population:	ADM 70,000 (nearly 70% African-American; 30% other)
Project Director:	Barbara Chambers, major work specialist

Project Goals, Objectives, and Activities

Goal I: **To develop a mentorship program, Major Work Partnership, that would match experienced Major Work teachers with teachers of regular elementary classes**

Objective Ia. To pair at least 10 Major Work/regular classroom teachers in a mentorship partnership program during the first year and 20 during the second year of the project

Objective Ib. To have mentors demonstrate the key elements of the Major Work program during a series of three-day visitations by the mentees

Goal I Activities

The Major Work program, Cleveland's program for gifted and talented students, serves 2,800 or 3.5% of the total district population in 30 of the district's 127 schools. The Major Work program is organized as self-contained classrooms within the total school structure in elementary and intermediate schools.

To initiate the mentoring program, notices were sent through the personnel department to recruit both Major Work and regular class participants. Mentors had to have at least three years of experience in the Major Work program and be completing course work for or hold gifted education validation. Ten mentors were recruited for the first year of the project as were 10 mentees (i.e., regular class teachers). All first-year mentors continued into the second year, during which the mentors totalled 19 and the new mentees, 20.

The plan was for mentors to assist their mentees in building and strengthening strategies for gifted education that could be used in working with gifted students in their classes and could be adapted for less-able students. The mentorship operational plan had five steps: instruction, demonstration, observation, analysis, and feedback. During classroom observations, mentors demonstrated the key elements of the Major Work program, which included brainstorming, problem solving, higher-order thinking skills, literature club, and daily talks. Other topics that were demonstrated included cooperative learning, independent or group research, and flexible grouping (see Figure 1).

The plan stipulated that mentors provide a clear explanation of the theory underlying the skills and strategies to be demonstrated and discuss methods of adaptation for regular classroom students so that the mentees could better apply what they had observed. Later, mentees taught similar lessons in their own classrooms while being observed by their mentors. Substitute teachers were provided for all of these visitations. The two teachers completed cooperatively a Classroom Visitation Report after each observation. These visitation reports were reviewed by the Major Work specialist and suggestions for realignment of lessons or activities to better fit the project model were made. Frequent themes of the mentor/mentee discussions included classroom organization, comparisons of the characteristics and needs of gifted and regular class students, and ways to incorporate Major Work strategies into regular classroom activities.

Goal II:	**To reinforce the mentorship program with university courses and inservice activities that will develop/enhance the knowledge and skills of gifted education teachers and regular education teachers with gifted children in their classrooms**
Objective IIa.	To enhance the Major Work teachers' instructional skills
Objective IIb.	To extend services to gifted children in regular classes
Objective IIc.	To increase the number of teachers who are working toward state validation in gifted education
Objective IId.	To update the Major Work teachers' knowledge and understanding of theory in gifted education
Objective IIe.	To introduce regular classroom teachers serving gifted education students to educational theory and practices in gifted education

Goal II Activities

To enhance the demonstration/observation mentorship, a series of topics were presented in 10-clock hour, one-credit modules by representatives of the Cleveland State University gifted education department. Tuition was paid by project funds. A needs assessment was used to determine the interests of both the mentor and mentee teachers, and the results were translated into course topics (see Figure 2). This component, guided by the principles of adult education, permitted the participants to determine their own needs and how best they could be served. The professional issues addressed were those that teachers were facing on a daily basis.

In addition to the university classes, one evening and two day-long inservice sessions were planned for each year of the project. The main purpose of these meetings was to provide orientation and support for the mentor/mentee teams, to facilitate networking among the staff, and to provide feedback about the program to the project director.

Figure 1
Major Work Visitation Profile

Class Visitation Profile

Procedures for Demonstration

Orientation to MW Program and Routines

- Morning/Opening Exercises (Pledge, Newswatch, Poem, Weather, Interest Stories, Bell Work)
- Class Meeting (Assignments, Class Organization)
- Classroom Management (Room Space, Arrangement, Transition Routines)

Characteristics of Gifted Students

- Verbal Ability (Reading, Writing, Speaking)
- Curiosity
- Creativity/Originality
- Productivity
- Self-Directive, Freedom within Limited Restrictions
- Teacher Expectations

Comparison-MW and Regular Students

- Variability in all Classes
- All Students Have Common Needs
- Gifted Like Regular Students May Need One-on-one Attention

Subject/Content

- Reading
- Mathematics
- Composition
- Black History
- Science
- Speech
- Health
- Art
- Music
- Careers
- Physical Education

Instructional Strategies

- Cooperative Learning
- Independent/Group Research
- Activity-Based Instruction
- Whole Language Approach
- Gaming
- Literature Club
- Daily Talk
- Reading Contract
- Math Bulletin Board (Modem)
- Junior Great Books
- Oral Book Reports

Grouping

- Whole Class
- Small Groups
- Individual
- "Ad-hoc" Groups

Processes

- Brainstorming
- Role-Playing
- Webbing, Mapping
- Higher-Level Thinking Skills
- Leadership Opportunities
- Logic
- Questioning-Bloom Taxonomy
- Outlining/Planning
- Problem-solving Strategies
- Mental Math
- Teacher, Peer, and Self-Evaluation

Materials

- Original/Teacher-Made
- Commercial
- Trade Books

Literature Club

- Bridging Phrases
- Words of Comment
- Supporting Evidence From Text
- Student Leadership
- Vocabulary Focus
- Summarization of Material
- Characterization and Setting
- Creative Questioning

Daily Talk

- Outlining Format
- Gathering Information
- Planning
- Speaking
- Experience
- Critique
- Teacher's Evaluation
- Self-evaluation

Creative Writing

- Individual and Group Stories
- Pen Pals/Letter Writing
- Poetry Writing/haiku
- Biography
- Young Authors' Program

Reading Notebooks

- Organization
- Content
- Evaluation

Whole Language Approach

- Use of Stories for Social Studies, Sciences, and Current Events

Mathematics

- Math Bulletin Board
- Problem-solving Notebook
- Egyptian Number System
- Fractions
- Mental Math – Developmental and Practical
- Order of Operations
- Place Value
- Parentheses and Brackets
- 3-minute Fact Wizards

Science

- Solar System
- Units on Hazardous Waste
- Planet's Atmosphere

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Project Results

Student and Staff Involvement. During the two-year duration of the project, 812 Major Work students and 840 students in regular classes were served by the project participants. These students could most typically be described as disadvantaged students in an urban setting. Forty-nine teachers participated in the mentor/mentee partnership inservice, and 90 teachers participated in university courses (unduplicated count).

Dissemination of information about the project model was made possible through grant funds. Four mentor teachers presented at both the 1990 and 1991 National Association of Gifted Children (NAGC) annual meetings. The project director presented at the 1990 Ohio Association for Gifted Children conference and the 1991 NAGC conference. A paper will be submitted by the director and university staff for presentation during the 1992 American Educational Research Association meeting.

Growth Through Mentoring. Ten mentoring pairs were formed during the first year of the project, and 20 during the second year (one mentor served two mentees). All program participants rated the program as highly effective on a five-point rating scale during the first year; 97% of the participants selected a five-point rating during the second year.

The training model not only expanded teachers' knowledge of and skills in the strategies used for serving gifted students, but improved their attitude toward and motivation for teaching. Pen pal relationships, for example, were developed in various mentor/mentee classrooms, and exchange visits occurred.

During the first year, 13 of the 20 teachers earned four or more university credits. The mean for the total group was 3.65. During the second year, 19 of the 20 completed the targeted two or more credits. Similarly, during the first year, 16 (26%) of the Major Work teachers accrued at least four credit hours, slightly below the targeted 30%. For the second year, a target of one credit hour for at least 40% of the staff was met. In fact, 38 or 54% met this objective.

The total participation in the first-year university course program was 60 teachers (40 Major Work and 20 regular class) who earned a total of 176 course credits. During the second year, participating teachers completed a total of 113 course credits. This program fulfilled a project objective to increase the number of teachers who have gained or are working toward validation in gifted education.

More informal feedback about the project revealed that the participants reported positive personal and professional effects as a result of their partnerships. Mentors reported that being selected to mentor was, in itself, a vote of confidence in their status as a teacher, and enhanced their feelings of competence and boosted their morale. As demonstration teachers, they reaffirmed their commitment to uphold Major Work ideals. Mentees likewise reported an increase in confidence, increased self-analysis about their teaching skills, and a feeling of rejuvenation (see Figure 3).

Figure 2
Project Inservice Schedule

Schedule of University Courses 1990 and 1991

Schedule	Course
Spring 1990 Workshop	Choosing Curricular Materials Motivating Underachievers Teaching Higher-Order Thinking
June-July 1990	Choosing Curricular Materials Motivating Underachievers Teaching Higher-Order Thinking Urban Community Resources Individualized Instructional Models Emotional/Social Needs Characteristics of Economically Disadvantaged Gifted Classroom Assessment Identifying Disadvantaged Gifted
Spring 1991 Workshop	Classroom Management Techniques for Teachers of Gifted Cooperative Learning Strategies for Gifted Children
June-July 1991	Use of Computers in Gifted Education* Motivating Underachievers Teaching Higher-Order Thinking Classroom Management Techniques for Teachers of Gifted Cooperative Learning Strategies for Gifted Children

*Two sessions were offered

Promising Practices and Recommendations

The following recommendations are offered to individuals interested in replicating this project:

1. The implementation of the model should follow the principles of adult education that permit professional staff to determine their own needs and how they can be served. A planning group representing the potential partners should conduct a needs assessment and consult with the university faculty or consultants who will deliver the course work.
2. The gifted education model should be reaffirmed and reviewed so that gifted educators are clear about the goals and model they are demonstrating.
3. A cadre of experienced and capable teachers is needed to serve as mentors. In smaller districts, a consortium could be considered. Once selected, both mentors and mentees should have ongoing input into the various components of the project.
4. Mentors will need orientation to and guidance in determining their specific responsibilities, the content of their demonstration lessons, and the nature of the follow-up discussions with and observations of the mentee. They need to explain clearly the "hows" and "whys" of their actions to the mentees.
5. The project director needs to provide feedback to and solicit feedback from the participants so that necessary mid-course corrections can be made.
6. Mentoring pairs should be matched by grade level as much as possible.
7. Building administrators must be oriented to the project so that they are supportive of visitations and the need for substitute teachers.
8. Cost factors, including staff development, substitutes, stipends, and program administration, must be considered.

Project Product

A program guide, *Cleveland City Schools Major Work Partnership,* is available from the project director. It describes the project and its theoretical construct; outlines the implementation steps, time lines, and costs; and includes supportive forms.

Program Benefits Reported

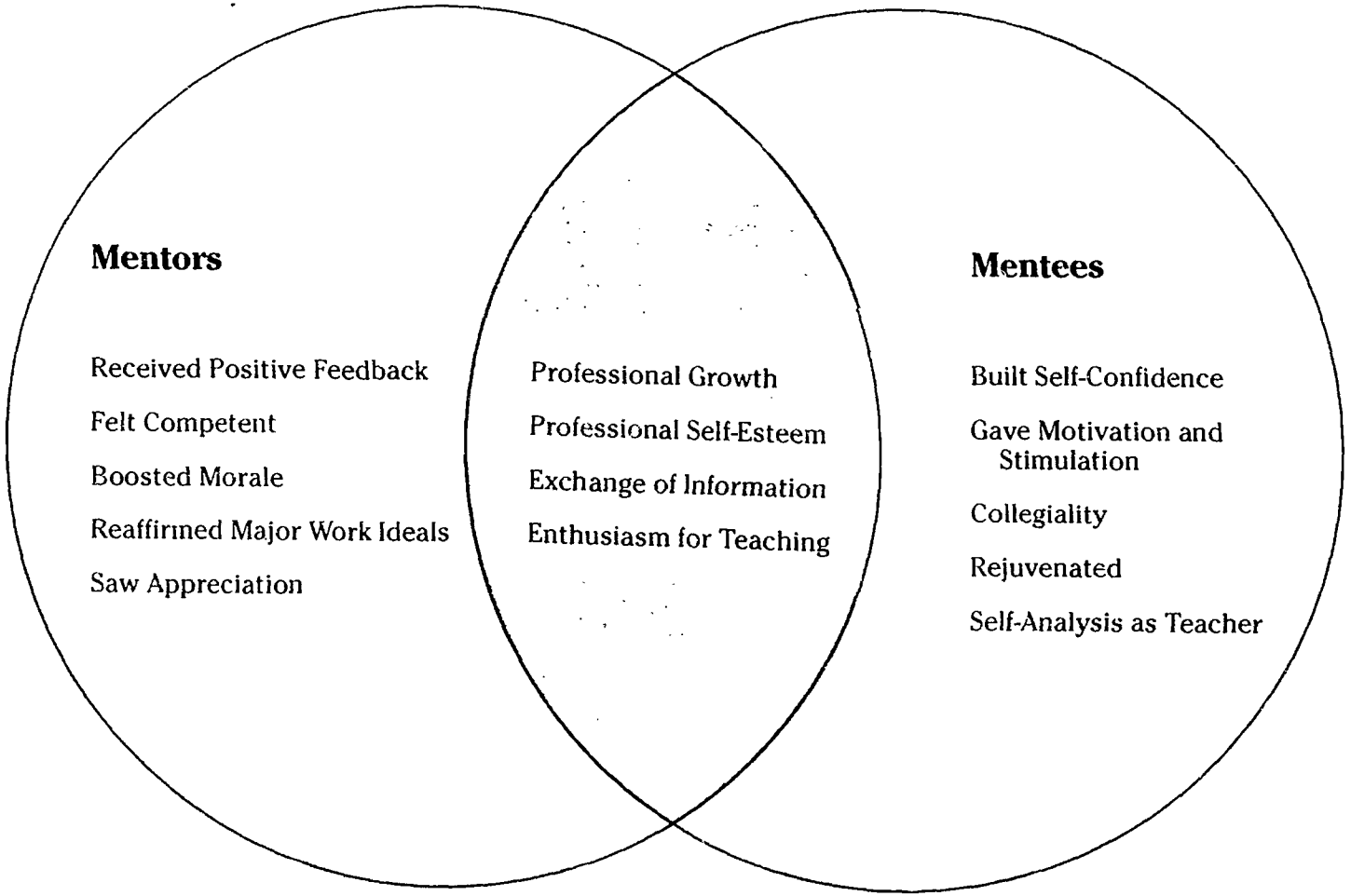
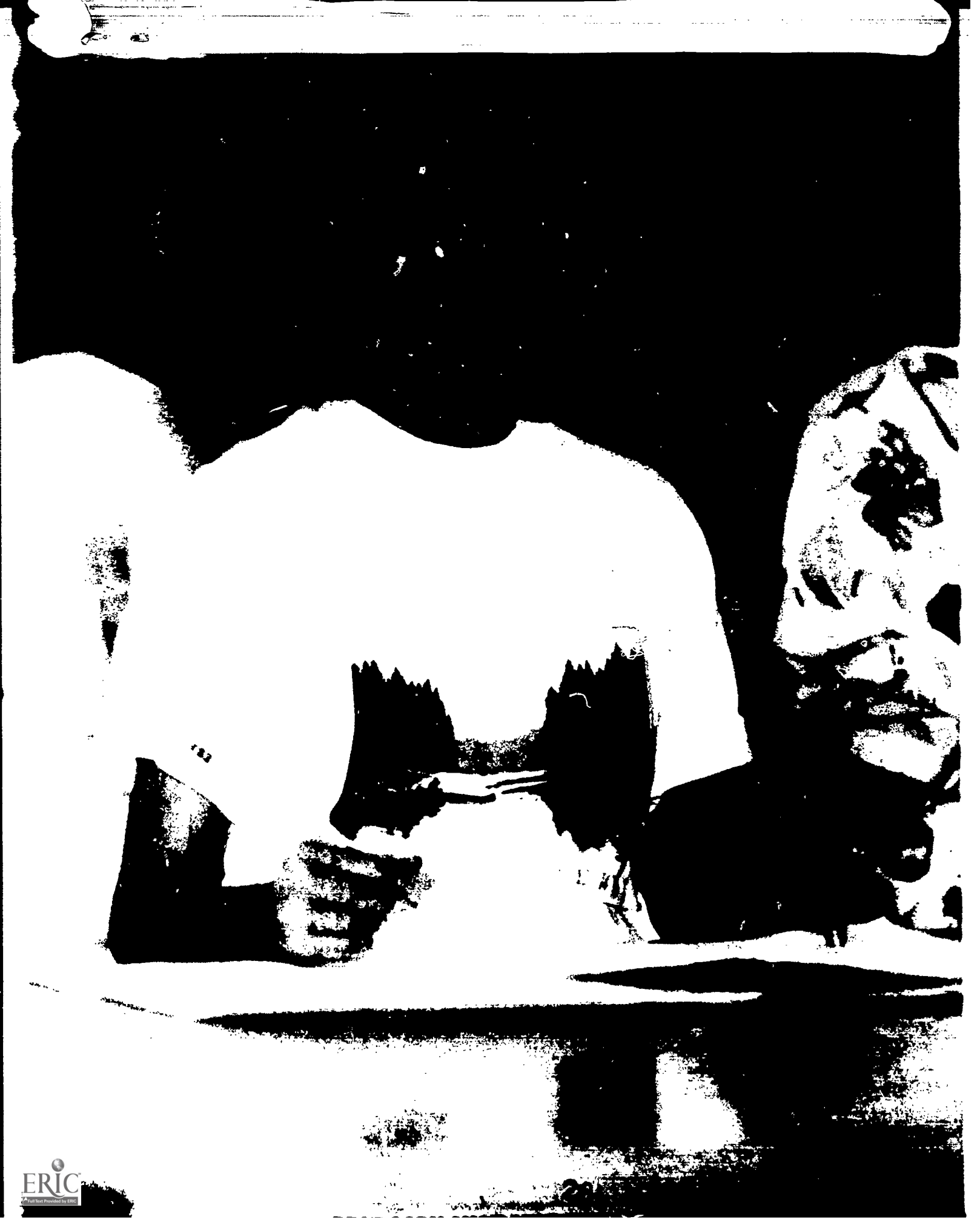


Figure 3
Benefits to Project Mentors and Mentees



A Transitional Restructured Elementary Gifted Program

Identifying Information

District:	Forest Hills Local Schools (Hamilton County) Administration Building 7550 Forest Road Cincinnati, OH 45255 (513) 231-3600
Location:	Suburban, adjacent to Cincinnati
School Population:	ADM 7,205 (elementary ADM 3,994)
Project Director:	Linda Londner, gifted/talented coordinator

Project Goals and Objectives

Goal I:	**To develop more comprehensive programming for gifted children in order to provide appropriate educational services to students identified in the various subcategories of giftedness**
Objective Ia.	To discover and better develop the potential of gifted students in the regular classroom
Objective Ib.	To provide services to students who are gifted in the areas of superior cognitive ability, specific academic ability, creative-thinking ability, and visual arts ability
Goal II:	**To develop and implement a transitional program that will move from a pull-out program to a K-6 grade school program**
Objective IIa.	To foster staff development, and the ownership of and ability to deliver appropriate educational services to gifted children in the regular classroom
Objective IIb.	To provide ongoing inservice training and resources to K-6 classroom teachers for providing appropriate instruction to gifted students

Goal III:	**To expand the time as well as the role of a gifted education resource teacher from half-time to full-time to enable him/her to function as a consultant to grade K-6 gifted students and regular classroom teachers**
Objective IIIa.	To provide/facilitate services to grade K-6 identified gifted children in both the regular classroom and the resource area
Objective IIIb.	To develop service partnerships between the regular class teachers and the gifted education resource teacher

Activities

The activities that were implemented to achieve the three goals are intertwined and will be discussed together as a description of the total transitional program.

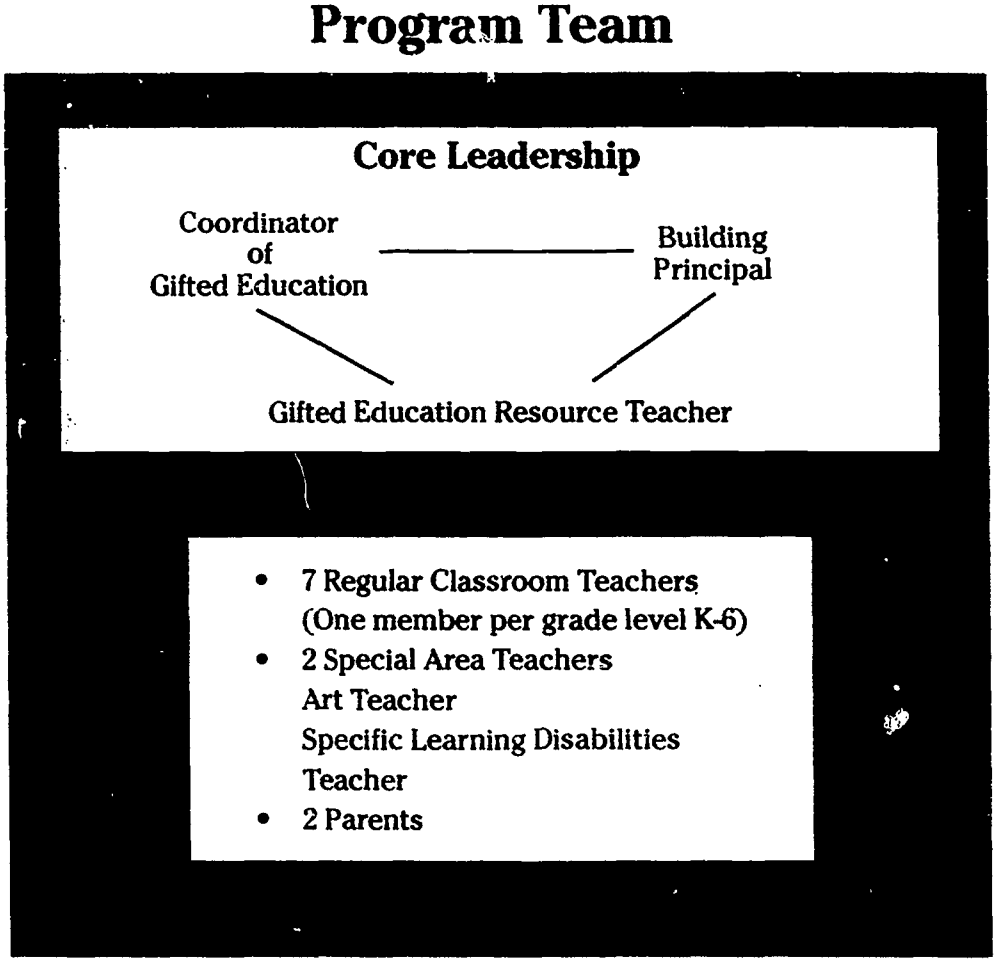
For many years, the Forest Hills School District gifted education program has been based on a pull-out model. Each of the six elementary buildings has had a half-time gifted education teacher providing services to fifth- and sixth-grade students and, on a more limited basis, to some third- and fourth-grade students. These children have been identified primarily as having superior cognitive ability or specific academic achievement and the program has reflected these strengths.

The project school, Maddux Elementary, and its students typify the school district. It is a site-based managed school housing 668 students. Commitment to plan and implement the pilot transitional program at this school was accepted by the superintendent, building principal, gifted education teacher, and the school's faculty and staff. The first year of the project was devoted to planning the program for implementation in the second year.

Because faculty input was viewed as necessary and critical in fostering a sense of ownership, a program planning and implementation team was formed. It included a core leadership team comprised of the gifted/talented coordinator, the principal, and the gifted education resource teacher. Additional program team members included a teacher from each grade level, the art teacher, the specific learning disabilities teacher, and two parents (see Figure 4). The program team addressed faculty/staff concerns, provided communication and liaison links to other teachers, and fostered ownership by soliciting input from other teachers.

One of the first activities of the project was to expand the identification procedure so that all types of gifted children could be more effectively identified. In addition to state-mandated testing, a multifactored evaluation process was designed that included a peer survey, teacher and parent nominations, and a review by the core leadership team. As the transitional program was implemented, children at all grade levels and in all gifted categories were able to receive services by the classroom teacher and/or the gifted education resource teacher.

Figure 4
Program Team Member Flowchart



Ongoing monthly inservice training was provided to the staff during both the planning and implementation years of the project. Inservice programs were designed to better enable teachers to identify and serve gifted students. Teacher strategies were presented in the areas of real-world and creative problem solving, higher level thinking, compacting, contracting, integrating Renzulli Type I, II, and III activities into content units, and resource materials reviews. Some of the teachers were sent to outside workshops with the understanding that they would later present a summary of what they had learned to the entire faculty.

Once the program was implemented, ongoing assistance was provided in many forms by the resource teacher. At the beginning of the implementation year, the resource teacher provided demonstration lessons/activities involving the modeling of strategies for the differentiation of content and process for teaching gifted children in the regular classroom. As the classroom teachers gained more confidence, the role of the resource teacher became more consultative. Several teaching partnerships evolved in which the resource teacher worked with individual students on independent projects or worked with small clusters of students on regular classroom activities. In some cases, she established community contacts, set up field visits or shadowing experiences, and worked with the classroom teachers on issues involving the affective needs of specific gifted children. Statements from classroom teachers, which progressed from "Show me.." or "Help me..." to "Come look...," reflected the transitional, progressive nature of implementing a total staff gifted education program.

"Resource central," the focus of the previous pull-out program, was not eliminated. For some intensive projects, individual or small groups of children worked at this site. In most of these cases, the child, resource teacher, and regular classroom teacher collaborated on the development of the contract or project and the evaluative criteria to be used at its conclusion. When products resulted, these were shared with gifted peers, other classmates, or appropriate adults.

As planned, gifted students in each of Ohio's four categories were served. In addition to a continuation of superior cognitive/specific academic activities that typified the previous program, creative-thinking ability was reinforced through such activities as creative problem solving "Think Tank" groups, an invention unit, and many in-class activities incorporating creative resources. A new after-school computer class was started for cognitively superior students. Students with high visual arts ability completed many in-school activities, participated in an on-site and museum visit partnership with Taft Museum, and/or enrolled in year-long after-school drawing and painting classes held on-site and taught by Art Academy personnel. Several students shadowed individual artists for short periods of time.

Project Results

Student, Staff, and Parent Involvement. Approximately 20% or 134 of Maddux Elementary School students were identified as gifted in one or more of the four state categories. All received some service during the year. A few gifted students with learning disabilities were identified and served in the program.

The entire staff of 38 professionals was included in the ongoing staff development phase of the project. Twenty-seven of these teachers, plus the gifted education resource teacher, provided direct service to gifted children. Finally, two parents served as members of the program team. An overview of the program was presented at a school PTA meeting. An orientation meeting for parents of identified children was held at the beginning of the implementation year and a second meeting was held later in the year to share information and exchange ideas about the development of creativity in children. At the end of the year, a "Showcase of Student Products" was held to share products with parents.

Expanded Curricular Options. All identified children in the building were served in some manner by the project, and service began immediately after identification since there were no size limits placed on the program. The expanded identification process resulted in a more complete recognition of and programming for the various gifted subcategories.

The involvement of the total staff of the building resulted in a more continuous differentiation of curriculum for the identified students (see Figure 5). New partnerships were formed with the Taft Art Museum and Art Academy that resulted in a broadened visual arts program for identified students. The field trips and shadowing experiences facilitated by the resource teacher also led to a number of career exploration opportunities. The resource teacher accompanied regular classes on many of these trips and provided differentiated experiences for the gifted children.

Written products submitted by several students were accepted to a national children's magazine. One learning disabled/gifted visual arts student's product was accepted for publication, and one final research product was displayed in a local physician's office.

Promising Practices and Recommendations

Teacher ownership was a critical goal of the program. Program leadership personnel remain open minded and flexible, and made available ongoing professional staff development. They offer the following suggestions:

1. While central office and administrative support are critical to the success of this model, the "bottom-up" decision-making approach used in this project empowered the teachers and resulted in their commitment to change.
2. It is recommended that project replication be limited to a pilot school followed by a gradual districtwide phase-in of other buildings. A significant time commitment on the part of the gifted/talented coordinator was required for implementation in the pilot school, and it is anticipated that this would be true in each new building.
3. The change in the role of the gifted resource teacher was more readily accepted because she had already worked in the pilot building. The communication/consultation skills of this person are paramount to the success of the program. The principal and resource teacher should share the same educational philosophy and work well together.

4. Gifted education personnel must understand that there will be a "letting go" of their program on both a personal and professional level. They must also recognize that their leadership and expertise are critical to the maintenance of a viable and appropriate program for gifted students.
5. The implementation year should be a "safe" year, building upon existing strengths and recognizing risk-taking steps on the part of the teachers. In this way, project personnel can facilitate change more quickly than would be possible if preconceived expectations for change had been set. Minimize paperwork, but maintain some record of service to each identified child.
6. After teachers become comfortable in delivering differentiated experiences, some degree of accountability must be built into the system.
7. A good selling point for the program is that all students can benefit from teacher inservice in critical and creative-thinking strategies, and total school enrichment activities.

Project Product

The guidebook, *A Transitional Restructured Elementary Gifted Education Program,* is available from the project director. It includes discussions of roles and responsibilities, tasks for the planning and implementation years, findings, and appendices that include the various forms and letters that were used to support the program.

Figure 5
Project Survey Instrument

	Yes		*No*		*No Answer*		
	Pre	Post	Pre	Post	Pre	Post	
1. The Gifted education program in our school building presently provides a continuum of services for children in grades K-6 in the regular classroom.	14%	94%*	82%	3%	4%	3%	
	More Than Introductory		***Introductory***		***None***		***No Answer***
2. I have received inservice training in	Pre	Post	Pre	Post	Pre	Post	
a. Identification of gifted children	14%	68%*	45%	29%	41%	0%	0% 3%*
b. Characteristics/behaviors of gifted children	22%	81%*	37%	19%	41%	0%	
c. How to work with the gifted child in the regular classroom	11%	77.5%*	37%	19.5%*	52%	3%	
d. Content/process/product differentiation	4%	62%*	22%	38%*	74%	0%	
e. Strategies of contracting, compacting, and in-depth investigations for use with gifted children	0%	58%*	18%	42%*	82%	0%	
f. Critical thinking	15%	61%*	30%	39%*	55%	0%	
g. Creative thinking	15%	68%*	48%	32%	37%	0%	
h. Problem solving	11%	58%	44.5%	42%	44.5%	0%	
i. Enrichment	11%	81%*	52%	16%	37%	3%	

	Yes		*Somewhat*		*No*		*No*	
	Pre	Post	Pre	Post	Pre	Post	*Answer*	
3. I am able to accurately discover gifted children in my classroom who have abilities in areas of								
a. Cognitive superior ability	48%	77%*	37%	20%	11%	3%	4%	0%
b. Specific academic ability	55%	84%*	41%	13%	0%	3%	4%	0%
c. Creative thinking ability	44%	65%*	44%	32%	8%	3%	4%	0%
d. Visual arts ability	30%	65%*	55%	29%	11%	6%	4%	0%
4. I have provided individualized instruction to gifted children in my regular classroom on an ongoing basis.	15%	39%*	59%	49%	19%	6%	7%	6%
5. The gifted education resource teacher has provided resource services to me in the regular classroom	11%	65%*	55%	26%	30%	3%	4%	6%*
6. The gifted education resource teacher has enabled me to better provide educational services to gifted children in the regular classroom setting.	11%	61%*	33%	33%	52%	0%	4%	6%
7. I feel I have ownership in a gifted education program in which I deliver gifted education services	4%	45%*	33%	45%*	59%	9%	4%	0%

* Signifies increase between pre and post percentages.

Muskingum County Staff Development Project for Gifted Students in the Regular Classroom

Identifying Information

District:	Muskingum County Schools 205 N. Seventh Street Zanesville, OH 43701 (614) 452-4518
Location:	Rural Appalachian Ohio, 55 miles east of Columbus
School Population:	ADM 11,516 (gifted child count over 1,400 with about 300 being served)
Project Director:	Sharon Graves, director of gifted programs

Project Goals and Objectives

Goal:	**To provide a wide-ranging two-year staff development program for all teachers of the gifted, the results and implementation of which would continue beyond the life of the grant**
Objective a.	To provide a week of intensive training for the gifted education staff that would focus on curriculum development and the provision of support services for teachers, administrators, and parents
Objective b.	To develop a corps of trained teacher-leaders who will serve their respective districts and buildings as teacher consultants and assist classroom teachers in implementing appropriate curriculum for the gifted through the development of model lessons and demonstration teaching
Objective c.	To offer three one-day workshops to assist all classroom teachers interested in becoming more knowledgeable about gifted programming, developing appropriate curriculum, and incorporating higher-level thinking skills for the gifted in their daily classroom activities
Objective d.	To provide two one-day administrative seminars for superintendents, principals, and central office staff on the nature of gifted programming, social/emotional needs, and giftedness in general
Objective e.	To develop a corps of trained parent/community volunteers who may assist teachers in providing enrichment opportunities for gifted children during and after school

Objective f. To provide funding through teacher incentive grants for all classroom teachers who wish to participate in training and the development of curriculum for gifted learners in their classrooms

Objective g. To guarantee active participation of gifted learners in the regular classroom as a result of the training offered through this staff development project

Activities

The overall purpose of the grant was to provide information about and stimulate concern for the social/emotional and educational needs of gifted children by providing inservice to all interested administrative and educational personnel in Muskingum County and to a group of parent/community volunteers. The level of training provided depended upon the role of the participant. The following consultants addressed various groups as noted:

- Dr. Joyce Van Tassel-Baska, College of William and Mary, provided training to the county office education staff for three days and addressed parents and area teachers and administrators.
- Dr. Jane Piirto of Ashland University, Dr. Nadine Hinton of The Ohio State University, and the county gifted education staff provided training to the teacher-leaders in three separate two-day sessions. Teacher-leaders received two semester hours tuition-paid credit and a $500 stipend for service to their buildings in 1990-91.
- Dr. Jane Piirto, Ashland University, and Dr. Douglas Sebring, North Olmstead Schools, addressed the administrators in two separate one-day workshops.
- Nancy Johnson, Creative Learning Consultants, presented a two-day workshop for all interested teachers. Dr. Joanne Whitmore, Kent State University, addressed the teachers for an additional day. Teachers were required to attend these three days if they wished to receive an incentive grant.
- Representatives from the Junior Great Books Foundation prepared 27 volunteers to work with this program. Two additional workshops prepared volunteers to assist teachers and gifted children through presentations on Bloom's Taxonomy, creative problem solving, and creative- and critical-thinking skills.

The fact that inservice training was provided by nationally known consultants motivated participants and raised expectations for the outcome of the grant. Teacher-leaders provided support for their colleagues and acquired the skills needed to continue supporting them in the future. Their tasks were defined as assisting in the identification of gifted children in their building; sharing information about gifted children with their colleagues on a regular basis through staff meetings, articles, or materials provision; developing and demonstrating model lessons; addressing specific colleague requests; and maintaining documentation concerning their activities (see Figure 6).

Figure 6
Sample Teacher-Leader Job Description

Job Description

Title: Teacher-Leader, Gifted Grant Project

Job Goal: To serve as a building teacher-leader/consultant to colleagues in the development and integration of activities for the gifted child in the essential classroom.

Qualifications

1. Complete the teacher-leader training focusing on the nature/needs and curriculum of the gifted (2 semester hours).
2. Exhibit a sincere commitment to and understanding of the gifted/talented student.
3. Function effectively in nonstructured situations.
4. Possess interpersonal skills that show evidence of ability to work effectively with administrators, instructional staff, students, and parents, while promoting the growth of gifted programs in the respective buildings.

Reports to Muskingum County director of gifted programs and district project coordinator.

Performance Responsibilities

1. Assist the district project coordinator with the identification of gifted students in the respective buildings.
2. Share, on a regular basis, information with colleagues regarding the characteristics and needs of gifted students and suggest ways they may be served in the essential classroom. This may be accomplished by
   - Participating in monthly staff meetings;
   - Publishing brief articles in the district newsletter; and
   - Providing appropriate materials to teachers.
3. Develop and demonstrate model lessons designed specifically for gifted children in the essential classroom. These lessons should relate to a core domain of study whenever possible and involve creative or critical-thinking components. Adaptations need to be provided for levels above and below the targeted grade level.
4. Upon request, assist classroom teachers with the development and incorporation of activities for the gifted within specific units of study.
5. Assist the district project directors with the documentation and evaluation of project results by
   - Maintaining a copy of all model lessons prepared and presented during the year;
   - Maintaining a record noting the date, time, and location of each demonstration;
   - Documenting, at the end of each semester, a list of gifted enrichment activities taking place throughout the building and noting the number of students participating in each activity; and
   - Assisting the district project director with the gathering, analyzing, and reporting of final evaluation results taken from all project participants (i.e., teachers, administrators, and volunteers).

The teacher recipients of the incentive grants developed a series of model lessons plans (see Figures 7 and 8). These lessons, created by classroom teachers for classroom teachers, provide strategies and techniques for accommodating the gifted child in the regular classroom. In addition, a resource library established in each local district gives teachers better access to curriculum materials, such as a videotape that demonstrates how to provide for the gifted learner during large-group activities.

A successful outcome of the project has been the use of volunteers for the Junior Great Books program, the Young Authors program, and the provision of general assistance for classroom teachers whose children are engaged in independent study projects. This is the first time that Muskingum County has ever provided training specifically designed to prepare volunteers to assist the classroom teacher.

Project Results

Renewed Commitment to Serving Gifted Students. Six hundred and ten gifted children, including at least 12 underachievers, were served in the classrooms of the participating teachers. Thirty-five administrators and 350 teachers received staff development training, and 71 teachers provided services. Of the 150 parents or community members who participated in the evening presentations, 46 were prepared to be volunteers.

Gifted children in many elementary classrooms are now being supported by a network of trained teachers and volunteers who have a greater understanding of the needs of the gifted child. Over 66% of the project participants evaluated the commitment to gifted children as having increased moderately to greatly. Lastly, appropriate curricular enrichment materials are now available in each local district.

Evaluating Project Effectiveness. All participants in the training portion of the grant were asked to complete a final evaluation, requiring them to rate 11 items, answer open-ended questions, and provide suggestions for implementing future gifted projects. Strong ratings were received in the areas of the organization and administration of the grant, the quality of the inservice, the incentive grants, the purchasing of resource library materials, and the change effected for gifted children.

Moderate or mixed support was obtained in the areas of communication regarding grant activities, involvement of classroom teachers and administrators, effectiveness of the volunteers, effectiveness of the teacher-leader concept, and effectiveness of the model lessons. In all likelihood, the broad range of responses to these items reflected the effectiveness of the individuals fulfilling the various roles.

Favorable comments seemed to cluster around the opportunity for training, the opportunity for sharing, and accessibility to a resource person and resource materials. Weak points seemed to come from teacher-leaders who found that they had underestimated the time needed for planning, sharing, and record keeping, and who seemed frustrated by the lack of "buy in" by some of their colleagues. Positive comments about future projects indicated continued interest in training and materials; negative comments centered around the need for better communication within and about such projects.

Figure 7
Sample Project Lesson Plan (Grade 2)

TITLE: Using a Chart to Make Decisions

GRADE LEVEL(S): 2

LENGTH OF LESSON: 30-40 minutes

PRESENTED BY: Linda Wiczen

Elements of differentiation for gifted learners

The gifted learner will be expected to respond with answers that reflect higher-order thinking skills.

Objectives

To use a chart to aid the decision-making process.

Student Activities

1. To listen to *Ira Says Good-Bye.*
2. To offer reasons why moving is both good and bad.
3. To reach a conclusion about a question through evaluating ideas about a problem.

Procedures

Teacher will read *Ira Says Good-Bye* by Bernard Waber. The teacher will then make a chart (see below). Solicit ideas from students and fill in the chart.

Good Things About Moving	Bad Things About Moving

Evaluation

At the conclusion, students and teacher can evaluate responses and see that listing thoughts is a helpful means of making decisions.

Materials and Resources

1. *Ira Says Good-Bye* by Bernard Waber
2. Chart paper

Extension Ideas/Activities

Students could work in pairs or small groups and use charts to make decisions about other problems.

Lesson Adaptations for Other Grade Levels

Using a chart is an excellent tool for choice making at any level. The procedure might easily be adapted to health or some social studies lessons at any level.

Figure 8
Sample Project Lesson Plan (Grade 5)

TITLE: Pollution using *The Wump World* by Bill Peet

GRADE LEVEL(S): 5

LENGTH OF LESSON: 1 hour

PRESENTED BY: Susan Sutherland

Elements of differentiation for gifted learners

I will differentiate for the gifted when discussing this book by using the higher levels of Bloom's Taxonomy.

Objectives

The student will be able to discuss relationships of the book *The Wump World* to our world.

Student Activities

1. Work in groups to make a diagram to show likenesses and differences of Wumps and Pollutians
2. Class discussion of Wumps and Pollutians.
3. Write a different ending for the story.

Procedures

Show book and give brief biography of Bill Peet.

1. Read *The Wump World.*
2. Work in groups to make a diagram to show likenesses/differences of Wumps and Pollutians.
3. Discuss what they would have done when the Pollutian landed if they were a Wump.
4. Compare/contrast between Earth and the Wump World.
5. Write another ending for the story.

Evaluation

Listen to their discussions.

Materials and Resources

1. *The Wump World* by Bill Peet
2. *The Lorax* by Dr. Seuss

Extension Ideas/Activities

1. Watch the video or read *The Lorax* and compare/contrast to *The Wump World.*
2. Write a poem, play, limerick, or song about the Wumps or Pollutians.

Lesson Adaptations for Other Grade Levels

May be adapted to any grade level by using written material appropriate for skill level.

Promising Practices and Recommendations

The grant provided an opportunity for educators, administrators, and volunteers to come together and receive training from nationally known experts who generated an interest in the needs of gifted children. This interest has not waned. Rather, it has resulted in increased enrichment opportunities for gifted children in the elementary classrooms of Muskingum County.

The project director suggests the following "do's" and "don'ts" for individuals interested in project replication:

DO

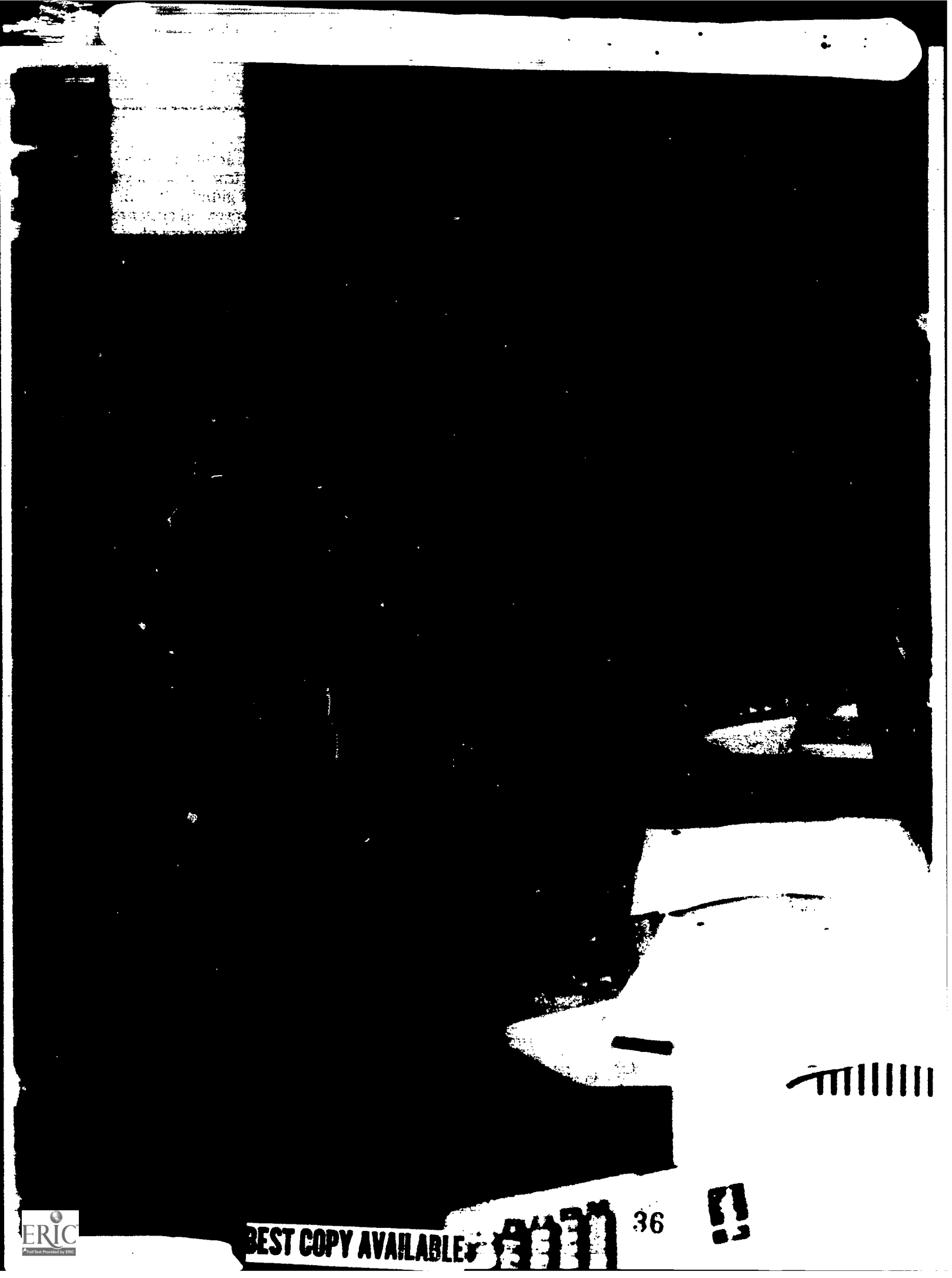
- Organize and plan each staff development event carefully;
- Communicate each and every event to every constituency;
- Provide such incentives as stipends, college credit, resource materials, and substitutes for daytime training;
- Allow more time for such a project than you had originally envisioned; and
- Delegate whenever possible.

DON'T

- Assume that everyone will share your enthusiasm and support for the project;
- Provide stipends until the contracted tasks have been completed;
- Be discouraged when observable changes are small or slow to evolve; and
- Try to do it all alone.

Project Products

A videotape, *Challenging Gifted Children in the Classroom,* and a booklet, *Model Lessons for the Gifted Learner in the Regular Classroom,* are available from the project director. The former contains a series of teaching vignettes illustrating the use of various "gifted" strategies in the regular classroom. The latter contains a series of model lessons developed by the incentive grant teachers.



Serving Secondary Gifted Students in the Classroom Setting

Identifying Information

District:	Reynoldsburg City Schools 6549 E. Livingston Avenue Reynoldsburg, OH 43068 (614) 866-2815
Location:	Suburban, east of Columbus
School Population:	ADM approximately 4,800
Project Director:	Dan Tussey, gifted/talented coordinator

Project Goals, Objectives, and Activities

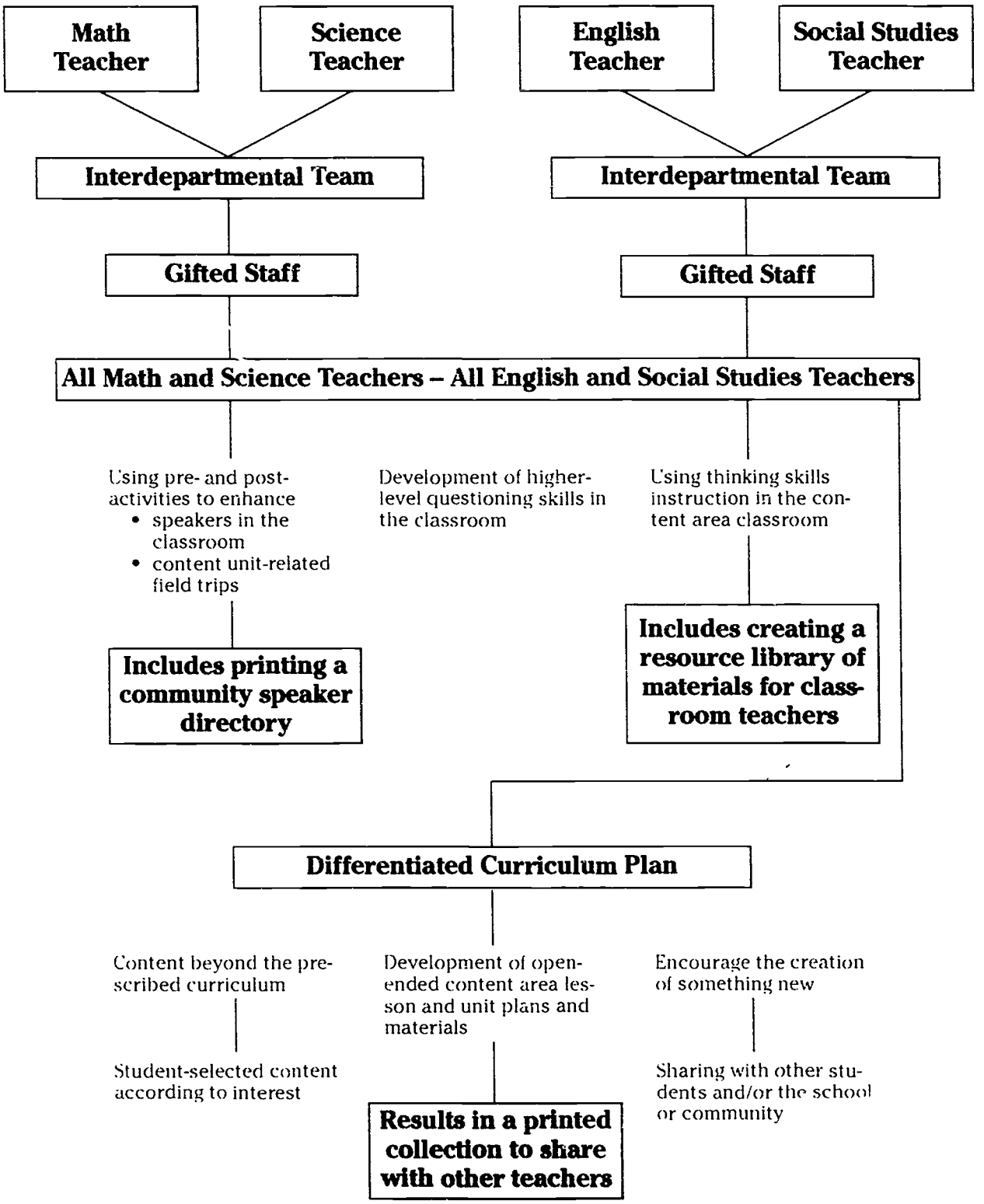
Goal I:	To make classroom teachers more aware of their students' potential
Objective Ia.	To provide inservice training to classroom teachers relating to characteristics of gifted children, higher-level questioning and thinking skills, and differentiated planning

Goal I Activities

Seven inservice sessions conducted by local and national presenters were held after school and were made available to all staff members in the middle school, junior high, and high school involved in the project. An average of 50 teachers attended each of these 90-minute sessions. Feedback from teachers indicated that they were well received and helpful in changing attitudes about gifted children.

Specific topics covered in the inservice sessions included characteristics of gifted children, structuring differentiated lesson plans, underachievement, outcomes-based instruction, higher-level questioning skills, and higher-level thinking skills. As one teacher commented, " I learned to expect more varied results and less conformity from gifted students and their work."

Goal II:	To make opportunities for gifted students available in a wider variety of subject areas than exists through the current gifted program
Objective IIa.	To create support services such as a community speaker directory and unit-related field trips
Objective IIb.	To provide appropriate resource materials in the major content areas
Objective IIc.	To maintain a library of materials that will aid the teacher in efforts to better serve gifted students in the regular class environment


Math Teacher
Science Teacher
English Teacher
Social Studies Teacher
Interdepartmental Team
Interdepartmental Team
Gifted Staff
Gifted Staff
All Math and Science Teachers – All English and Social Studies Teachers
Using pre- and post-activities to enhance
• speakers in the classroom
• content unit-related field trips
Development of higher-level questioning skills in the classroom
Using thinking skills instruction in the content area classroom
Includes printing a community speaker directory
Includes creating a resource library of materials for classroom teachers
Differentiated Curriculum Plan
Content beyond the prescribed curriculum
Development of open-ended content area lesson and unit plans and materials
Encourage the creation of something new
Student-selected content according to interest
Sharing with other students and/or the school or community
Results in a printed collection to share with other teachers

Goal III:	**To provide a support system on which classroom teachers can rely to help implement new procedures and concepts**
Objective IIIa.	To design project plans that can be initiated by classroom teachers with follow-up by gifted teachers
Objective IIIb.	To compile and duplicate collections of unit plans that differentiate curriculum for the gifted student

Goal II and III Activities

In addition to giving the secondary teachers a broader knowledge base about the characteristics and needs of gifted students, it was the intent of the project to provide time and support for some teachers to develop and implement differentiated lesson plans, new teaching strategies, and out-of-class enrichment opportunities, and to compile a broader range of material resources for their students (see Figure 9). All of these activities were completed with the assistance of the gifted/talented coordinator and two gifted educators who served the buildings.

It was decided that the most change could be made by targeting personnel to serve on a project team. This team was comprised of a science, English, mathematics, and social studies teacher in each of the three buildings supported by the gifted educators. While some grant activities were available to all teachers, project team members assumed responsibility for materials acquisitions and writing lesson objectives. Specifically, the team members researched materials for their respective content areas, and these were purchased for their departments. In the second year of the grant, team members used the materials and rated them on their usefulness in differentiating curriculum for gifted students. The project team developed over 50 lesson and unit plans in their content areas of mathematics, English, social studies, and science. Additional sample plans were devised for art, music, and foreign language.

The Reynoldsburg Speaker Directory was developed and distributed to over 250 teachers. About 30 speakers visited the schools as a direct result of this activity. In addition to in-class presentations, some speakers served as mentors for individual students, as career events experts, and as resource persons for students involved in independent study projects. Teachers were encouraged to design pre- and post-activities for both speaker presentations and field trips so that their students could benefit more fully from these experiences (see Figure 10).

Planning for appropriate experiences for gifted students was a team effort. In different instances, the impetus for such an experience might come from the classroom teacher, the gifted educator, or the student. Occasionally, the building administrator, parent, or other classroom teachers became involved. By sharing the burden of planning, the teacher was more likely to devise an appropriate plan, and the student was more likely to accept the plan. One example of such a plan was the development and production of a schoolwide news program by two gifted students. The 10 resulting programs were made available for viewing by the entire student body. Other projects included participation in simulations, art history research, advanced computer art, historic political research, and an independent study of natural selection.

Goal IV:	**To benefit, as much as possible, regular education students through improved and more individualized instruction**

Goal IV Activities

The ultimate success of this project goal can only be surmised. Once differentiation is understood by a teacher, it can be used to accommodate both strengths and weaknesses. Direct involvement of nongifted students did occur when about 35 students who were advanced in one area were involved in such activities as group projects, simulations, problem-solving situations, and debates. Regular class students served as audiences or in other ways shared in the projects of many gifted students.

Project Results

Student, Staff, and Parent Involvement. All 120 gifted students in the three participating buildings benefited from participation in project activities. Thirty-five "advanced" students participated with gifted students in a variety of special projects. An estimated 400 regular class students served as audiences for the product presentations made by the gifted students. It can be assumed that many others benefited from the increased expertise of their teachers.

The project team teachers (12 content teachers and two gifted educators) benefited most directly from the project. Each has indicated changes in his/her teaching style and ability to focus on gifted students' needs as a result of participation in the project.

An average of 50 secondary teachers attended each of the seven inservice presentations, and the three building administrators assisted in the scheduling of events, attended the inservice presentations, and supported the work of the project team members.

Approximately 75 parents attended a Nancy Johnson session on "Parenting the Gifted: A Survival Guide," and more than 100 heard Felice Kaufman speak on the topic "Helping Your Child Develop the Courage to Succeed."

The identified gifted students were involved in differentiated projects in a variety of settings and in classes with teachers who better understood and met their particular needs through the planning and delivery of differentiated curriculum activities.

Figure 10
Pre- and Post-Enrichment Activities

Ideas for Pre- and Post-Activities

You have invited an engineer to speak to your class.

Possible activities for gifted students before the presentation

- Give student a brochure on a school's engineering program.
- Discuss a problem an engineer might be asked to solve (e.g., How do you design an earthquake-proof highway?).
- Identify the different types of engineers.

Possible activities for gifted students after the presentation

- What kind of engineering changes might be needed for designing buildings in unique places (e.g., under water, on the moon?)
- What is the best/worst thing about being an engineer?
- Explain why you would or would not want to be an engineer.

Promising Practices and Recommendations

Participating teachers viewed the project as a vehicle for empowering them to make important decisions about the operation of their classrooms. They offer the following recommendations:

1. The presence of gifted educators gave the project team additional impetus and support by modeling specific approaches in the early stages of the project.
2. The ability to differentiate curriculum can benefit students who have strength in a particular content area even though they are not among the identified gifted students. There were 10 documented instances where differentiation was made for such students.
3. "Courage" was an operative and appropriate word in the project. In many instances, the gifted student had the courage to ask for a classroom modification. In other instances, the classroom teacher or parent requested the change. It took some degree of courage for each initiator to begin the process and for others to join in the implementation of the plan.
4. The teacher inservice was a popular, but frustrating, component of the grant. The time spent after school with nationally known speakers was too short, and the teachers who attended who were not project team members often expressed frustration at their inability to follow through sufficiently on the ideas that had "whetted their appetites."
5. Project team members believed that the project would have been more successful if students had been more involved in the effort. Some students expressed concern that differentiation might mean more work or more extensive evaluation. More cooperative planning might have eased their concerns and increased their appreciation of the process.
6. The resource materials component of the project appeared to be less important than the differentiated lesson planning. The use of community resource people and the existing media center supported most projects sufficiently. The best received materials included those that stimulated ideas for improving the project and that helped teachers guide student research and simulations.
7. The effective use of gifted educators as in-house consultants takes time and skill in communication and collaboration. Giftedness and gifted education could not be "rammed" into the minds and curriculum of regular education colleagues. Nevertheless, with proper groundwork, many school personnel came to appreciate the project goals. In the words of one teacher, "diversification is not only OK, but good."

Project Product

A guidebook, *Serving Secondary Gifted Students in the Classroom Setting,* is available from the project director. This guidebook contains a summary of the project, guidelines for developing a community speaker directory, a model for planning pre- and post-activities for enrichment opportunities, a resource material list, lesson and unit plans in the four content areas, and sample plans in art, music, and foreign language.

Talents Unlimited: An Effective Model for Comprehensive Curriculum Development, Grades 9-12

Identifying Information

District:	Sidney City Schools 1215 Campbell Road Sidney, OH 45365 (513) 498-2131
Location:	Rural, west central Ohio
School Population:	1,134 ADM in grades 9-12 (96% Caucasian, 3% African-American, 1% Asian)
Project Director:	Connie Donovan, gifted/talented coordinator

Project Goals, Objectives, and Activities

Goal I:	**To develop a comprehensive high school program to implement a continuum of services for gifted and talented high school students in the regular classroom**
Objective Ia.	To examine and expand the gifted/talented identification procedure currently being used
Objective Ib.	To develop program options that reach through and beyond the required high school curriculum
Objective Ic.	To show an improvement in gifted/talented students' attitudes toward the high school curriculum
Goal II:	**To implement an effective inservice education model for training both regular teachers and specialists in gifted education in the development of students' creative- and critical-thinking skills**
Objective IIa.	To plan and implement an ongoing staff development program for the high school staff
Objective IIb.	To show improvement in gifted/talented students' ability on Talents Unlimited criterion-referenced tests: productive thinking, communication, decision making, forecasting, and planning

Figure 11
TU Lesson Plan in English

Talents Unlimited Lesson Plan

GRADE: 10
ORIGINATED BY: Lee Miller
TALENT: Decision Making
ACADEMIC: English
TOPIC: Debate

MOTIVATION: This activity will introduce students to the use of logical thought and structure in arguing the pros and cons of a specific issue. It will help them decide on the best topic for a class debate.

THINKING PROCESS WARM-UP STRATEGY: Review decision making.

MATERIALS NEEDED/RESOURCES: Decision-making worksheet.

TEACHER TALK: "Now that we have generated many topics for a class debate, let's use our decision-making talent to decide which of the topics best fits our generated criteria for our final choice of a debate topic. Weigh the alternatives against these criteria: Which topic has two well-defined sides (for and against)? Which topic will give us an even division of students for and against? Which topic can you support without a lot of research? Make your decision; we will vote and discuss the many, varied reasons for our decision."

STUDENT RESPONSE: Oral, total group.

REINFORCEMENT: Praise students whose thinking reflects the four decision-making behaviors.

EXTENSION:

Figure 12
TU Lesson Plan in Art

Talents Unlimited Lesson Plan

GRADE: 11-12
ORIGINATED BY: Ann Asher
TALENT: Productive Thinking
ACADEMIC: Art
TOPIC: Ceramic Sculpture

MOTIVATION: This introductory activity will enable students to see various possibilities for a pot design before making a ceramic pot of their own.

THINKING PROCESS WARM-UP STRATEGY: Review productive thinking.

MATERIALS NEEDED/RESOURCES: Paper, pencil.

TEACHER TALK: "Now that we have examined various types of pots, it is time for you to think about a design for your own pot. Use your productive-thinking talent to design many varied and unusual types of pots. Sketch 15 designs on paper and have them ready by next class period. Number your designs from 1-15."

STUDENT RESPONSE: Individual, pictorial.

REINFORCEMENT: Praise students whose designs reflect many, varied and unusual types of pots. Encourage students to complete all 15 designs.

EXTENSION:

Goal I and II Activities

The first two goals of the project were accomplished through the implementation of the Talents Unlimited (TU) training program. TU is a teaching/learning model for thinking skills instruction adapted from Calvin Taylor's multiple-talent approach to teaching. This multiple talent theory was first translated into practical classroom activities by Mobile, Alabama, teachers in 1971 under a project directed by Dr. Carol Schlicter. TU has been part of the National Diffusion Network since 1974.

The TU model features four major components: (1) a description of specific skills components in the multiple-talent clusters of productive thinking, decision making, planning, forecasting, and communication; (2) model instructional material for demonstrating the function of the multiple-talent thinking skills in enhancing academic learning; (3) an in-service training program to assist teachers in the recognition and nurturing of students' multiple-thinking abilities; and (4) an evaluation system for the assessment of student development in the thinking-skills component.

A TU trainer was contracted to provide a series of small-group two-day workshops in February and March of 1990 to a total of 62 regular classroom teachers. In March and April of 1990, each of these trained teachers received one day of technical assistance in how to adapt the training to their particular content area and personal needs. From March through June 1990, and from September 1990 through June 1991, an on-site trained high school TU resource teacher provided assistance to each teacher in writing TU activities that were applicable to the various content areas and that were easily integrated into the existing curriculum (see Figures 11 and 12).

Goal III:	**To establish a demonstration site for providing TU certified trainers for other school districts**
Objective IIIa.	To observe a group of high school teachers to verify the use of the TU teaching strategies
Objective IIIb.	To develop teacher/administrator teams to provide inservice training to other school district personnel

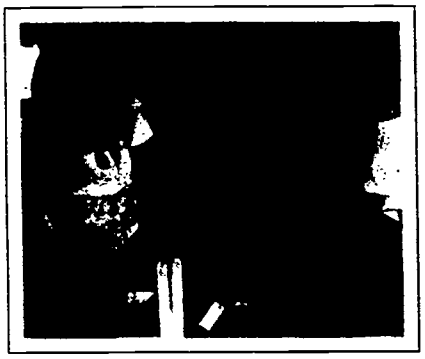
Goal III Activities

Models that target a total staff for change, in reality, result in change that varies from individual to individual. Those teachers committed to the TU process, who worked as a leadership core within various building departments, have completed TU requirements for trainer status and operate demonstration site classrooms. These teachers have received recognition within the district, are available to assist colleagues in other districts, and have the potential to earn additional income from their consultant activities.

Project Results

Student and Staff Involvement. Eighty-six academically gifted students in grades 9-12 in Honors and AP classes have been served by activities created as a result of this grant. Other students, including underachievers and the artistically gifted not enrolled in these special sections, have been served by their regular class teachers.

Sixty-two teachers participated in the two-day training workshop and developed activities for their various classes that included students with a wide range of abilities. Four central office staff and 12 building administrators also participated in the TU training workshops. In other parallel projects, elementary teachers have received the TU training. There is a districtwide understanding and implementation of the model.



Expanded Opportunities. Junior and senior students participated in a weekend Futures Retreat. Sophomore students participated in the Sidney-Shelby County Chamber of Commerce Leadership Seminars and practiced their leadership skills by designing and holding a Leadership Retreat for sixth-grade students at a local campground.

Other students entered academic competitions, representing the district for the first time. These included Mock Trial, Invention Convention, chess championships, debate competitions, and academic tournaments. Art students created an "Art Installation" at the high school using the TU model.

Students across the curricular areas were "turned on" to learning by the use of the TU questioning techniques and activities. Since the staff had a common language with which to converse across the disciplines, several interdisciplinary activities were developed during the technical assistance phase of the project. These activities further stimulated student interest in the curriculum.

Evaluating the Effectiveness of the TU Curriculum. In addition to the informally observed attitudinal differences perceived by the project and high school staff, a quasi-experimental design was employed to test the effects of the TU model. Eighty-one students in Sidney High School and 92 students in neighboring Wapakoneta High School, a school with similar demographics but without staff training in the TU model, were pretested. Seventy-seven Sidney and 81 Wapakoneta students were available for posttesting. Each group was tested and compared on the TU flexibility, originality, and decision making subscales. In addition, the Sidney students were pretested and posttested without controls on two TU communication scales, a forecasting scale, and a planning scale. They also completed an attitude inventory about the Sidney curriculum.

The total group, freshman (as of 1990-91) and senior groups, were statistically different from the controls on the flexibility and originality subscales. A statistically significant difference was not evident for the sophomore and junior groups, but at every grade level, the Sidney group had a greater gain than did the controls.

The decision making subscale was a rating scale with four points: below average, average, above average, and well above average. A chi square statistic was used to determine the significance of change of ratings from the pretest to posttest. On this scale, 59 (77%) of the Sidney students showed a gain in rating compared to 26 (32%) of the controls. Sixteen (21%) of the Sidney students showed no gain compared to 48 (59%) of the controls. Only two Sidney students and seven Wapakoneta students showed a loss. These differences were significant at the .0001 level.

On the communication and forecasting subscales, the pretest and posttest comparisons of the Sidney students were statistically significant overall and at every grade level beyond the .01 level using a MANOVA. A follow-up ANOVA treatment revealed that the two communication subscales were significantly different at every grade level; however, the gains made in forecasting were significant only for the freshman group. The planning subscale was a rating scale and required the chi square statistic. An average/below average vs. above average 2 x 2 design suggested a positive overall change in rating, significant at the . 0001 level.

Finally, the attitude scale completed by the students was analyzed using the T test for correlated groups. Only the freshman group showed a statistically significant improvement, while the seniors exhibited a slight decline. The statistician hypothesized that the latter might be reflective of "senioritis" and noted that the positive attitude of the younger group was a good omen for their success using the revised high school curriculum. In summary, the statistician concluded, "All analyses taken together, the results offer compelling support that positive changes occurred from the time the TU program began until it concluded."

Promising Practices and Recommendations

To assess the effects of the project on teacher behavior, a university professor with 20 year's experience in using the Flanders Interaction Analysis method observed the verbal classroom behavior of 10 Sidney High School teachers in April 1990, and again in April 1991. Neither the treatment process (i.e., the TU model) nor the project goals were made available to this observer so that rater bias could be controlled. This observer reported that lecturing decreased 15%, silence/confusion decreased 11%, and criticizing decreased slightly (less than 1%) between the two observations. Other behaviors increased. He concluded that the observed teachers were relying less on lecture as an instructional technique and criticism as a behavioral management technique, and were gaining instructional time by reducing the silent/confusion time within the classroom. The observed teachers were more accepting of students' work, thoughts, and behavior, and the frequency and quantity of student talk increased in the observed classes.

These observations and the student testing reported in the previous section provide powerful data supporting the effectiveness of the TU model in changing both teacher and student behavior during the two-year project. The TU model impacted the entire student body and staff. While gifted students benefited and participated in activities designed to address their specific needs, they were in no way given "elite" treatment or isolated from their peers in ways that might be perceived as undesirable in the adolescent culture.

Other positive outcomes related to use of the TU model follow:

1. The multiple talents model recognizes that gifts exist in diverse areas and diverse individuals. First-time participation in a variety of academic competitions reflected teacher recognition of the diversity of talent that exists.
2. The weekend retreats on the topics of futures and leadership provided an opportunity for in-depth study of "gifted" topics not specifically covered in the curriculum and resulted in more informal and productive interaction between the teachers and the gifted students.
3. With the conclusion of this project, the majority of teachers in the Sidney schools have been exposed to a system that values and teaches specific ways to develop the creative and critical thinking skills of all students. Students will be exposed to this system throughout their school career and, hopefully, all future Sidney graduates will exhibit greater skill in the application of thinking processes.
4. Teachers have been empowered to make changes in their teaching style. The technical and in-house support as well as the universality of the project provided an atmosphere in which innovation and change were the rule rather than the exception. Administrative support, release time for workshops, and public recognition provided rewards for the eager participants and incentives for those who were more hesitant to commit to the project. By writing lesson plans in the prescribed TU format, teachers practiced their new-found skills and techniques and developed written curricula for their specific content areas.
5. Teachers who have become certified trainers have found a way to expand their teaching role and receive additional monetary rewards. By participating in a National Diffusion Network project, an established vehicle is available for disseminating their ideas and products.

Project Product

High School Talents Activities is available from the project director. This guide includes lesson plans illustrating the various TU talents incorporated into the curricular areas of foreign language, history/geography, English, art, mathematics, science, and home economics (consumer education). Each lesson plan identifies the talent, the topic, the motivation, the thinking process warm-up strategy, the materials needed, "teacher talk," student response, reinforcement, and extension activities.

Junior High Opportunity Power Project

Identifying Information

District:	Toledo City Schools Manhattan & Elm Streets Toledo, OH 43608 (419) 729-8472
Location:	Northwest Ohio
School Population:	ADM approximately 41,000 (approximately 40% minority; approximately one-third of the families receive public assistance)
Project Director:	Bruce Kuntz, director of elementary programs

Project Goals and Objectives

Goal:	**To develop a program that establishes the full potential of junior high youth who are identified as gifted but placed, due to underachievement, in regular classes**
Objective a.	To establish an organizational committee to develop operational policies and provide monitoring and evaluation of the project
Objective b.	To establish a planning team to develop curriculum and strategies
Objective c.	To identify underachieving and achieving junior high students for the purpose of establishing learning teams
Objective d.	To develop a manual outlining the planning and implementation process

Activities

In the fall of 1989, an organizational committee was established and began delineating the program activities. Members of this committee included the project director, the building principal, the project teacher, and two additional teachers selected by the principal. The major concerns of this committee were the student-selection process, staff inservicing, and scheduling of classes during the school week.

The students involved were taken from two groups – high achieving honors students and underachieving gifted students. Selection of the honors students was made from the honors classes. The low-achieving students had to meet two of the three criteria used by Toledo City Schools to identify gifted students in Chapter 1 schools. These three criteria are as follows: 90th percentile or above on a standardized reading test, teacher recommendation, and/or a score of 122 or above on the *Otis Lennon School Ability Test.* Ultimately, 12 teams were established for the first year of the grant and 18 learning teams functioned during the second year. The purpose of the achieving member of the team was to provide a positive role model and to work cooperatively with the underachieving team member when group work was appropriate. The achievers received no particular training for this role.

During the first year of the project, the program was developed as a bi-weekly pull-out program. Since the program began in the middle of the year, scheduling was a problem. Although students had to miss math or health class to attend the program, regular classroom teachers were accommodating. During the second year of the project, the students were block-scheduled into language arts. Each grade (seventh and eighth) was served by the gifted teacher for one semester and integrated into an existing language arts block during the other semester. The gifted educator served as both language arts and gifted education teacher.

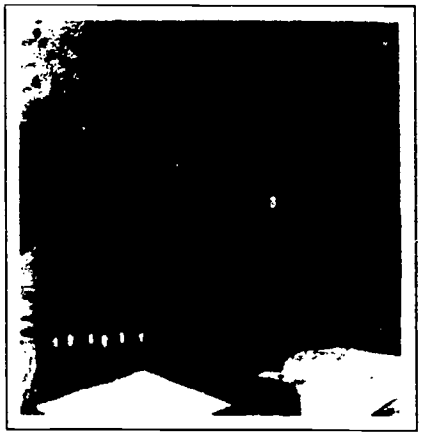
Curricular decision making for the project was accomplished by a curriculum-planning team. The planning team, chaired by the gifted education teacher, included the building principal or assistant principal, and the language arts teachers.

During the first year of the project, each class was assigned one of two projects: writing a drama or producing a research-based news documentary. Attention was given to using written and community resources, developing oral and written communication skills, improving group interaction, and increasing problem-solving skills. The news documentary group made a videotape entitled *Discovering the Handicapable*. Background research began with a general study of handicapping conditions and included field trips to special education facilities and interviews with successful people with disabilities.

The second-year curriculum involved a Reader's Theatre that focused on both literary classics and the students' own work. In addition to this group project, each student was required to complete a research report on a topic of his/her choice. These report projects included guidance in research and learning such procedures as note taking, outlining, referencing, and developing a table of contents.

Project Results

Student, Staff, and Parent Involvement. Twenty-four junior high gifted students participated in the first year of the project and 36 participated in the second year. Half of these students were underachievers. All but one of the first-year students continued to be enrolled in the school and participated in the second year.



Forty junior and senior high school teachers received inservice training through the project. The teachers were faculty members of the participating junior high school and of the high school that the students would attend. The training provided an overview of the project, addressed the needs of underachieving and achieving gifted students, and explored the ways in which the project goals might be continued in both schools in future years. Four administrators received inservice training, and parents were updated about the project and their child's progress through parent conferences.

Results of the *School Attitude Measure,* a student self-report instrument, showed growth in the subscale entitled "Sense of Control Over Performance" and in the "Motivation for Schooling" subscale for the 1989-90 eighth graders. Limited or no growth was indicated on the "Motivation for Schooling" for the other groups, and on the "Academic Self-Concept" and "Instructional Mastery" subscales.

The *Watson Glaser Critical Thinking Appraisal* was selected to assess the potential increase in thinking ability. This test proved to be too difficult and frustrating for the students and was of limited use because of the lack of junior high norms. Raw scores were used as an indication of areas of student need. It was interesting to note that the highest score at each grade level was attained by an underachieving student.

When the grades of students who participated in both years of the project were compared using a four-point (4=A) scale, grades increased from 1.8 to 3.4 in language arts, from 2.8 to 3.1 in math, and from 2.4 to 2.9 in social studies, and remained at 3.1 in science. Attendance increased slightly, recorded at 95.8% the first year and 97.5% the second year.

All children involved in the project received a differentiated language arts experience. Student surveys completed about the components of the program indicated that students liked the program. All rated the overall program as excellent or good on a four-point scale and all indicated that they would like to participate if the opportunity were offered for another year. Classroom activities and field trips received consistently high ratings. Drama, literature, creative writing, and speaker presentations received a majority of excellent or good ratings. Open-ended student comments reflected overwhelming support of the program.

Promising Practices and Recommendations

The pairing of achieving and underachieving junior high students was a relatively easy way to model achievement for less-motivated students, and creative language arts opportunities appear to be a good curricular vehicle for motivating underachieving gifted students. All of the participating students rated the program favorably, so it can be assumed that the achieving students felt they had a positive experience.

The project director suggests the use of the following procedures for replicating the program:

1. Create an organizational team to identify long-term goals and provide monitoring and evaluation.
2. Create a planning team to develop curriculum and strategies. In this project, the team was comprised of the building administrator, gifted/talented teacher, and language arts teachers.
3. Identify students by reviewing elementary gifted class lists, cumulative records, and standardized test scores. Compare the names to honors class lists to identify eligible underachieving students.
4. Compact basic language arts instruction to provide time for special projects.

Project Product

A planning and implementation model booklet is available from the project director. This booklet includes the information outlined above and a project time line.

Epilogue

The continuum of services projects addressed the needs of gifted and talented students at the elementary, junior high, and high school level. Most focused on teacher training; many involved a mentoring component. The following common conclusions resulting from the projects are offered:

Teachers cannot be expected to provide adequate enrichment for gifted/talented students in regular classrooms without intensive training in the needs of the gifted/talented student and appropriate instructional techniques, and the availability of human and material resources.

All of the projects included a staff development component; for most, this was the major thrust of the project.

Inservice training can have a positive impact when group staff development is supplemented by ongoing support, such as individual or small-group mentoring, demonstration teaching, and cooperative planning. Cooperative curriculum planning between specialists in gifted education and various content areas can combine effectively the discipline-based knowledge of the latter group with the differentiated methodology of the former.

Five of the six projects used mentors, in-house consultants, or return visits by expert consultants as a way to reinforce and supplement the efforts of the regular classroom teachers following initial training.

Teachers of the gifted and talented who shift from a resource room to a more collaborative/consultative model must be well-trained in communication, collaboration, and consultation, as well as in the needs of the gifted.

The reports of the five projects that used teachers in consultative roles underscored the need for training in collaboration and consultation as a critical project component.

Selection of a specific and identifiable model (e.g., Talents Unlimited) provides a common vocabulary and conceptual framework that can be used districtwide for communication and articulation of program goals across grade and discipline levels.

The Sidney project was the most consistent and obvious in fulfilling this recommendation. Other projects described the increased understanding of the "vocabulary" of gifted education once staff development had taken place.

The change from a "gifted" program to a broader continuum of services requires an adjustment of thinking about ownership for both the gifted/talented and regular education faculty – a "letting go" on the part of the former and a "buying in" on the part of the latter – and may require several years to complete.

Several reports mentioned the need for both regular and gifted educators to rethink their beliefs and roles. Reform of any kind involves a period of uneasiness that was reflected in many of the project directors' observations.

Once regular classroom teachers have been prepared to implement "gifted strategies" in their classrooms, all children can benefit from their increased instructional competence. This alleviates the elitist concerns about gifted education, while ensuring appropriate instruction for those who need differentiated instruction and curriculum. Expanding the services to regular classrooms does not, however, mean that no identifiable and differentiated services should be available specifically for the gifted and talented. The concept of continuum mandates that a variety of options be maintained.

In the majority of the projects, services to gifted children were expanded, not replaced, by a regular class infusion model. In Forest Hills, the gifted educator shifted her emphasis from resource room teacher to coteacher and facilitator, but continued to maintain an identifiable place where children could come for special assistance and resource materials.

Viable continuum options include the use of in-school volunteer parents or community persons; partnerships with outside agencies, such as museums; and, mentorships or career exploration opportunities with local business persons or professionals.

This is not an exhaustive list of options, but each of these was used successfully in one or more of the projects.

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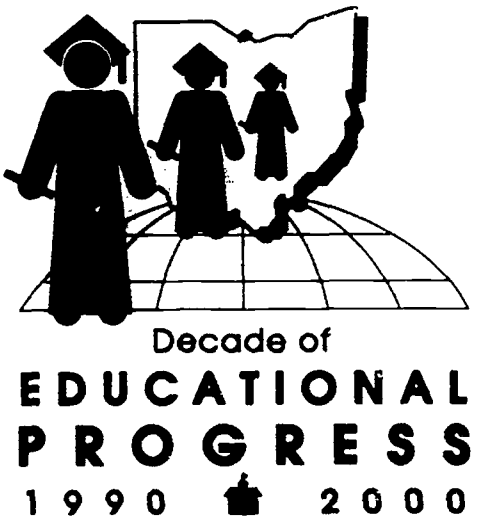

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