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ABSTRACT

This publication describes 19 projects in Florida school districts supported by the 1998 Collaborative Curriculum Project. Grants were awarded to projects at the classroom or school level to address a significant problem or issue in the education of gifted students, support the redesign of instruction, and support collaboration among students, teachers, and community members to enhance instruction. Information about each project is presented in the following format: (1) project goals and rationale; (2) project implementation (e.g., problem or issue addressed, curriculum content focus, and instructional methodology); (3) evaluation (assessment of student performance, project evaluation); (4) budget; and (5) contact person. (DB)



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ED 442 235

Challenge Grant for the Gifted

Collaborative Curriculum Projects

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Challenge Grant for the Gifted

Collaborative Curriculum Projects

1998-99 Summaries

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Division of Public Schools and Community Education
Florida Department of Education
1999*

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Introduction

The Challenge Grant Program for the Gifted was established in 1981 to encourage public schools to implement exemplary programs that challenge gifted students. Projects funded under this program are designed to improve the quality of existing programs, initiate a model or demonstration program, or expand student participation in existing programs. Project activities support the improvement and further development of provisions for gifted students in a school, district, or group of districts.

Since 1981, the annual Challenge Grant appropriation has been awarded on a competitive basis for local district projects that address identified priority areas. The purpose of this funding method was to support innovation in individual districts to meet the instructional needs of gifted students. In previous years, Challenge Grant funds have been concentrated on a few major statewide projects designed for statewide application. However, beginning in 1998, a portion of the Challenge Grant appropriation has supported classroom based curriculum projects. The 1998 Challenge Grant: Collaborative Curriculum Project supported innovative curriculum projects aimed at the classroom or school level to

- meet the academic needs and interests of gifted students through attention to a significant problem or issue
- support the redesign of instruction
- support collaboration between students, teachers, and community members to enhance instruction

Two initiatives in Florida have given rise to these objectives. First, the Sunshine State Standards identify more complex classroom objectives that require a redesign of instruction to ensure that the objectives are being met effectively. Furthermore, gifted students often have deeper interest in a topic that may go beyond traditional classroom instruction or resources. Second, the revised funding model for exceptional student education supports a more integrated service delivery model that provides expanded opportunities for collaboration.

The Collaborative Curriculum Projects are intended to promote meaningful collaboration between gifted students and teachers, other students, colleagues, mentors, or agencies while investigating a significant problem or issue. It is expected that this collaboration will enhance instruction and thus the academic performance of the students by introducing new information, skills, talents, and perspectives to the instruction. It is expected that collaboration will go beyond traditional classroom methodologies such as pairing gifted students for research projects. Collaboration may be coordinated with general education classrooms, classrooms for students with disabilities, other schools or school districts, professionals in a particular field who are willing to become mentors and share expertise, colleges or universities, museums, and laboratories. These collaborative projects may involve face-to-face interaction or coordination through the use of technology such as the internet.

Funds are provided primarily for curriculum development, instructional planning, and the implementation of redesigned curriculum. However, funds may also be used for professional development (including release time for planning or training in an innovative or exemplary program) and resources not currently provided by the school district that are necessary to meet instructional objectives.

Grants of up to \$12,000 are awarded for 10-12 projects annually. Participation in this project is open to all school districts in the State of Florida. Funding is competitive and based on the recommendations of a review team. Consideration is given to geographical distribution throughout the state, with 20% of the funds allocated to school districts served by the Institute for Small and Rural Districts (ISRDR) Project.

The purposes of this publication are to provide information to Florida school district administrators and teachers about the grant opportunity and information about the grant projects that have been funded in the past.

Information about each project was submitted by each project director and is presented in the following format:

- I. Project Goals and Rationale
- II. Project Implementation
 - A. Significant Problem or Issue Addressed
 - B. Curriculum Content Focus
 - C. Sunshine State Standards Addressed
 - D. Instructional Methodology Used
 - E. Nature of the Collaboration
 - F. Project Activities
- III. Evaluation
 - A. Assessment of Student Performance
 - B. Project Evaluation
- IV. Budget
- V. Contact Person

For further information about the Challenge Grants Collaborative Curriculum Projects, please contact the Florida Department of Education, Bureau of Instructional Support and Community Services, Program Development and Services, 601 Turlington Building, 325 W. Gaines Street, Tallahassee, Florida 32399, 850-488-1106, Suncom 278-1106, Fax 850-922-7088.

**Alachua County School District
Kanapaha Middle School**

Project Title: Looking at the Earth Scientifically and Historically: An Integrated Curriculum

I. Project Goals and Rationale

The goal of this project was to redesign the sixth-grade gifted curriculum in order to blend the science and social studies objectives. Researchers from the University of Florida were identified who would be willing to share their expertise with students.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	70	Gifted teachers	2
General education students	0	General education teachers	0
Students with disabilities	5	Teachers of students with disabilities	0
Administrators	0	Parents	0
Community members	14	Other participants	0
Total number of participants			91

A. Significant Problem or Issue Addressed

As the science and social studies curricula were delivered to the sixth-grade gifted students during the 1996-97 and 1997-98 school years, it became apparent how easily the two subjects could be tied together. The school administration gave the go-ahead to implement the idea of combining the two for the 1998-99 school year. This grant provided the time to do the redesigning, as well as the time to locate researchers from the University of Florida. Materials and books were purchased to supplement current resources.

B. Curriculum Content Focus

The science content focus is Earth and environmental science beginning with the formation of the earth up to and including the condition of our planet today. The social studies content begins with early humans and the development of early civilizations up to the Industrial Revolution.

C. Sunshine State Standards Addressed

1. Science Standards

- a. Earth and Space Standard 1: The student understands the interaction and organization in the solar system and the universe and how it affects life on earth.
- b. Earth and Space Standard 2: The student recognizes the vastness of the universe and the earth's place in it.
(The curriculum unit on astronomy will meet these two standards.)
- c. Processes that Shaped the Earth Standard 1: The student recognizes that processes in the lithosphere, atmosphere, hydrosphere, and biosphere interact to shape the earth.
(The curriculum units on continental drift, volcanoes and earthquakes, and erosion and weathering will meet this standard.)
- d. Nature of Matter Standard 1: The student understands that all matter has observable, measurable properties.

- e. Nature of Science Standard 1: The student uses the scientific processes and habits of mind to solve problems.
(All science curriculum units will meet this standard.)

2. Social Studies Standards

- a. Standard 1: The student understands historical chronology and the historical perspective.
(The curriculum unit on early human will meet this standard.)
- b. Standard 2: The student understands the world from its beginning to the time of the Renaissance.
(The curriculum unit on early civilizations will meet this standard.)
- c. Standard 3: The student understands Western and Eastern civilizations through the Renaissance.
(The curriculum units on ancient Egypt, ancient Greece, ancient Rome, world religions, conquests and crusades, Middle Ages, Renaissance, and Shakespearean plays will meet this standard.)

D. Instructional Methodology Used

The integrated curriculum was delivered through a variety of methods including simulations, games, labs, role playing, plays, group problem solving, and mentoring.

E. Nature of the Collaboration

The nature of the collaboration this year has been mainly exposing students to experts in various fields by having the experts come to class and share their expertise. The purpose was really two-fold: to expose students to as many "true" scientists as possible and to dispel any stereotypical notions that students may have already developed about scientists in general.

F. Project Activities

A wide range of activities were conducted this year including a simulated archaeological dig, a reenactment of the trial of Socrates, a production of Shakespeare's *Macbeth*, a viewing of the night sky with telescopes, and a comparison of the carbon dioxide emissions from a car's exhaust to that of human exhalation, for example.

III. Evaluation

A. Assessment of Student Performance

A pre-test/post-test was designed and administered to the students. All of the students' test scores improved dramatically. The average percentage gain from pre-test to post-test was 60%. Iowa Test of Basic Skills (ITBS) scores were also compared looking at the social studies and science scores of the gifted sixth graders for the '96-'97, '97-'98, and '98-'99 school years. The average percentile scores for social studies and science were 82, 91; 86, 84; 86, 91 respectively. There was a significant increase in social studies while the science scores stayed the same.

B. Project Evaluation

No information provided.

IV. Budget

The total project budget was \$10,645.00.

V. Contact Person

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**Alachua County School District
Mebane Middle School**

Project Title: New Newnansville: The History Of Alachua, Florida

I. Project Goals and Rationale

The goal of this project was to provide the gifted 8th graders at Mebane Middle School with the opportunity to engage in and benefit from a large scale, type III project. In doing so, we also complemented the 3rd, 4th, 6th, and 7th grade social studies curricula at Alachua Elementary and Mebane Middle Schools.

Gifted students require the challenge and stimulation that in-depth study provides. They must exercise creative expression and problem solving skills, research skills, and communication skills. According to Renzulli, gifted students thrive on type III activities in which they can solve a real problem to make a real difference. Type III activities, such as this project, are self-selected projects in which the students assume the role of first-hand inquirer. This project provided the opportunity to acquire advanced-level understanding of the knowledge and methodology that are used in the kind of large-scale undertaking that is designed to produce an authentic product. The students developed self-directed learning skills in the areas of planning, organization, resource utilization, time management, and task commitment.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	10	Gifted teachers	1
General education students	142	General education teachers	8
Students with disabilities	0	Teachers of students with disabilities	0
Administrators	4	Parents	6
Community members	10	Other participants	4
Total number of participants			185

A. Significant Problem or Issue Addressed

The City of Alachua is a small, rural, family-oriented community rich in little known history. The famous Bellamy Road, a major thoroughfare between St. Augustine and Tallahassee built in the mid 1820s and the first federally funded Florida road, makes up the northern boundary of the Mebane Middle School campus. The now defunct town of Newnansville, named for Col. Daniel Newnan, was the largest town in Florida during this same period of time and is less than 1 mile from Mebane. Most of the population of Alachua and the surrounding areas are unaware of this rich and important heritage.

The students at Alachua Elementary School study their community in grade 3, and Florida history in grade 4. A curriculum on local history does not currently exist, however, and there is a need for resources and interactive activities on this topic that will interest students at this level. Mebane's School Improvement Plan, Goal 3, calls for greater articulation between Alachua Elementary and Mebane Middle Schools.

B. Curriculum Content Focus

The students were taught how to conduct research, how to conduct an interview, how to write a pre/post test, how to use Hyperstudio, and how to use various forms of technology such as the camcorder, digital camera, scanner, and laptop computer.

C. Sunshine State Standards Addressed

LA.A.1.3.1 The student uses background knowledge of the subject and text structure knowledge to make complex predictions about content, purpose, and organization of the reading selection.

LA.A.1.3.3 The student demonstrates consistent and effective use of interpersonal and academic vocabularies in reading, writing, spelling, and speaking.

LA.A.2.3.1 The student determines the main idea or essential message in a text and identifies relevant details and facts and patterns of organization.

LA.A.2.3.2 The student identifies the author's purpose and/or point of view in a variety of texts and uses the information to construct meaning.

LA.A.2.3.5 The student locates, organizes, and interprets written information for a variety of purposes, including classroom research, collaborative decision-making, and performing a school or real-world task.

LA.A.2.3.7 The student synthesizes and separates collected information into useful components using a variety of techniques, such as source cards, note cards, spreadsheets, and outlines.

LA.A.2.3.8 The student checks the validity and accuracy of information obtained from research in such ways as differentiating fact and opinion, identifying strong versus weak arguments, and recognizing that personal values influence the conclusions an author draws.

D. Instructional Methodology Used

The teacher's role is as facilitator rather than the director of class activities. The students learned, after brief introductions, demonstrations, and guidelines, by doing.

E. Nature of the Collaboration

The students and teacher collaborated with the following people in the activities listed.

1. With Matheson Center/Alachua County Historical Society historians, the students researched a historical subtopic of interest. This specialized information could not be found in our media center or in the regional library. The historians assisted students in using books and archives, and conducted a tour and an evening lecture on Alachua history for the students.
2. With community members and parents, the students conducted interviews of community members and parents to obtain oral histories of the area on video or audiotapes.
3. With administrators, teachers, and students at Mebane Middle and Alachua Elementary Schools, the teacher arranged for the presentation and use of software, the use of necessary hardware, and the administration of pre/post tests at Mebane Middle and Alachua Elementary Schools. Selected students and the teacher traveled to Alachua Elementary School to set up the hardware, the software, and to distribute pre/post-test hard copies to the curriculum resource teacher and classroom teachers.

F. Project Activities

1. The students visited the Matheson Historical Center in Gainesville. They researched a historical subtopic of interest. This specialized information could not be found in our media

center or in the regional library. The historians assisted students in using books and archives and conducted a tour and an evening lecture on Alachua history for the students. The students videotaped the tour and lecture. They used the scanner, laptop computer, and digital camera to copy various historical photos and documents that could not leave the Center.

2. The students videotaped and audiotaped interviews with community members and parents to obtain oral histories of the area.
3. The students created Hyperstudio presentation "cards" on the subtopic of their expertise. The students then linked these cards into a Hyperstudio presentation "stack" to create a computer activity for grades 3-8 that is educational and fun to use.
4. The students wrote a pre/post-test for this local history unit. They used Microsoft Word to type and print the test.
5. The students will write, type, and print an evaluation form for the collaborating teachers to complete after their students have used the software.
6. The teacher will add the Hyperstudio activity to the Mebane Middle School web site, <http://www.sbac.edu/-mms/toc.htm>

III. Evaluation

A. Assessment of Student Performance

Due to a project extension, student performance was not yet assessed at the time of printing. The students that use Alachua history software will be assessed by their achievement on the pre/post-test. The students that created the software will be assessed by a comparison of their 1998 Iowa Test of Basic Skills (ITBS) reading composite score and their 1999 Iowa Test of Basic Skills (ITBS) reading composite score.

B. Project Evaluation

The project will be evaluated via the teacher evaluation form and the results of the student pre/post-tests.

IV. Budget

The total program budget for this project was \$10,305.00.

V. Contact Person

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**Alachua County School District
Oak View Middle School**

Project Title: An American History Tour

I. Project Goals and Rationale

The purpose of the project was to enhance rural gifted students'

- A. access to the World Wide Web as a resource and global communications tool
- B. research and organizational skills
- C. writing skills
- D. computer literacy and practical application thereof
- E. knowledge of American history: increasing their understanding of America's past role and role in the future
- F. use of higher order thinking skills to assist regular and compensatory education students

An additional purpose was to provide regular and compensatory education students with an introduction and review of concepts and facts in a multimedia approach.

Long range goals included the provision of a collection of multimedia computer activities for use schoolwide to supplement the middle grades social studies curriculum in American history.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	51	Gifted teachers	1
General education students	394	General education teachers	26
Students with disabilities	101	Teachers of students with disabilities	9
Administrators	3	Parents	0
Community members	0	Other participants	0
Total number of participants			585

A. Significant Problem or Issue Addressed

Gifted students in rural areas need outlets for their special talents as they are more isolated than their urban peers. Gifted students in rural areas need opportunities for research and acquisition of information. Regular and compensatory education students need opportunities for the introduction and review of concepts and facts in a less than traditional approach. In this electronic age, students gravitate toward and attend better to interactive multimedia presentations.

B. Curriculum Content Focus

American history from the establishment of the Jamestown Colony through Reconstruction.

C. Sunshine State Standards Addressed

1. History Standards

Standard 1: The student understands chronology and historical perspective.

Standard 4: The student understands U.S. history to 1880.

Standard 5: The student understands U.S. history from 1880 to the present day.

2. Government and Citizen (Civics and Government Standards)

Standard 1: The student understands the structure, functions, and purposes of government and how the principles and values of American democracy are reflected in American constitutional government.

Standard 2: The student understands the role of the citizen in American democracy.

D. Instructional Methodology Used

Gifted students used the World Wide Web and other traditional sources of information to produce a multimedia Hyperstudio presentation that was then used by regular and compensatory education students.

E. Nature of the Collaboration

Gifted students created the programs during their gifted American history class. Regular and compensatory education students used the programs in their study of American history. Gifted students increased their skills using the World Wide Web to research and access information; they increased their proficiency in using computers and related programs and they increased their knowledge and understanding of specific areas of American history.

F. Project Activities

No information provided.

III. Evaluation

A. Assessment of Student Performance

Assessment was based on the successful completion of the program by the gifted students. Specific criteria were used to determine adequate completion. If those criteria were met, then it was determined that the student had achieved successful results. Regular and compensatory education students were given pre/post-tests for each game, and the average grade point average (GPA) for American history was also a factor. All (100%) of the gifted students successfully completed their project and met the minimum requirements. The average post-test score for the regular and compensatory education students was 66%, an increase of 26% over pre-test scores. The average grade point average (GPA) for regular and compensatory education students in the subject of American history was 2.85.

B. Project Evaluation

A 26% increase between pre/post-test scores was realized; regular and compensatory education students had an average grade point average (GPA) in American history of 2.85. In addition, opinion surveys were administered and tallied. A scale of 1 to 5 was used with 1 indicating non-effectiveness and 5 indicating high effectiveness. Results are indicated below.

Question	5	4	3	2	1
How effective was the game in covering important facts for the time period?	11%	56%	33%	0%	0%
How effective was the game in keeping the user's attention?	22%	22%	50%	0%	6%
How much did you (i.e. the user) learn from this game?	28%	44%	22%	6%	0%
Would you play this game again?	17%	33%	44%	6%	0%

Teacher surveys indicated that 85% felt the games were effective in covering important facts for the time period and 85% indicated they would use all or parts of the games in their curriculum.

Copies of the teacher survey and pre/post-test instruments are available upon request.

IV. Budget

The total program budget was \$9178.00.

V. Contact Person

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**Brevard County School District
Discovery Elementary School**

Project Title: Project See (Social And Environmental Education) The Gifts Of The Space Coast

I. Project Goals and Rationale

A. Rationale

Students were to learn to apply science content knowledge to real-world situations. Students were to be provided with the knowledge, awareness, and analytical skills needed to function effectively as adults. Project SEE included experiences designed to increase the students' social and environmental awareness. The program was also to increase the students' sense of responsibility to Brevard County by targeting local environmental issues of the Space Coast community. The project was to enhance the existing school-wide curriculum and to serve as a connection between Project SEE and the general education program at Discovery Elementary School.

B. Project Goals

Students who participated in Project SEE

1. were to gain a thorough understanding of, and develop an appreciation for, the area in which they live
2. were to develop an increase in content knowledge based on Sunshine State Standards, particularly in math and science
3. were to increase self esteem and self-confidence by taking responsibility for their own learning
4. were to contribute positively to the community by becoming stronger citizens whose unique cognitive gifts have the potential to greatly benefit our school, city, county, and state

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	45	Gifted teachers	1
General education students	1000	General education teachers	40
Students with disabilities	105	Teachers of students with disabilities	5
Administrators	2	Parents	200
Community members	150	Other participants	25
Total number of participants			2769

A. Significant Problem or Issue Addressed

Project SEE was based on the premise that gifted students need significant challenges in order to excel academically and typically do not do as well with "run of the mill" assignments. SEE was designed to provide gifted students with a program that was carefully structured in the content presented (i.e. a study of those attributes unique to the Space Coast) while allowing the students the freedom and flexibility to develop a product to be shared with students in the regular classroom. Students were allowed to examine Project SEE's topic areas in depth, as opposed to the more general surface type examination, which is typical of subject presentation in the regular classroom.

B. Curriculum Content Focus

Project SEE focused on activities in the areas of language arts, science, social studies, the arts, and mathematics.

C. Sunshine State Standards Addressed

1. Language Arts

LA.A.1 The student uses the reading process effectively.

LA.A.2 The student constructs meaning from a wide range of texts.

LA.B.1 The student uses the writing process effectively.

LA.B.2 The student writes to communicate ideas and information effectively.

LA.C.2 The student uses viewing strategies effectively.

LA.C.3 The student uses speaking strategies effectively.

LA.D.1 The student understands the nature of language.

LA.D.2 The student understands the power of language.

2. Science

SC.B.2 The student understands the interaction of matter and energy.

SC.D.1 The student recognizes that processes in the lithosphere, atmosphere, hydrosphere, and biosphere interact to shape the earth.

SC.D.2 The student understands the need for protection of the natural systems on Earth.

SC.E.1 The student understands the interaction and organization in the solar system and the universe and how this affects life on Earth.

SC.G.1 The student understands the competitive, interdependent, cyclic nature of living things.

SC.G.2 The student understands the consequences of using limited natural resources.

SC.H.1 The student uses the scientific process and habits of mind to solve problems.

SC.H.3 The student understands that science, technology, and society are interwoven and interdependent.

3. Social Studies

SS.A.6 The student understands the history of Florida and its people.

SS.B.1 The student understands the world in spatial terms.

SS.B.2 The student understands the interactions of people and the physical environment.

SS.C.2 The student understands the role of the citizen in the American democracy.

SS.D.1 The student understands how scarcity requires individuals and institutions to make choices about how to use resources.

4. The Arts:

VA.A.1 The student understands and applies media, techniques, and processes.

5. Mathematics:

MA.A.1 The student understands the different ways numbers are represented and used in the real world.

MA.A.2 The student understands number systems.

MA.A.3 The student understands the effects of operations on numbers and the relationships among operations, selects appropriate operations, and computes for problem solving.

MA.A.4 The student uses estimation in problem solving and computation.

MA.B.1 The student measures quantities in the real world and uses the measures to solve problems.

MA.B.3 The student estimates measurements in real world problem situations.

MA.B.4 The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real world situations.

MA.E.1 The student understands and uses the tools of data analysis for managing information.

MA.E.3 The student uses statistical methods to make inferences and valid arguments about real-world situations.

D. Instructional Methodologies Used

Primary instructional methods used in Project SEE included

1. whole group instruction
2. small group instruction
3. individual practice
4. hands-on practice
5. internet usage
6. guest speakers
7. field trips

E. Nature of the Collaboration

During Project SEE, students had an opportunity to collaborate with

1. guest speakers who visited the classroom
2. county public park personnel
3. students in general education classes
4. school media specialist
5. school technology specialist
6. technology support staff from vendors

F. Project Activities

To meet the objectives of Project SEE, students targeted three environmental issues of the Space Coast community of Brevard County.

1. preservation of the shoreline
2. preservation of wildlife habitats
3. conservation of energy

The project was implemented using a variety of activities.

1. Students researched and compiled information on each area of study utilizing the following:
 - a. guest speakers who were from the scientific, technologic, and educational communities
 - b. use of technology, including computer hard and software, the internet, hyperstudio, digital cameras, videocameras, educational videos, and a 35mm camera
 - c. media resources
 - d. scientific experiments and data collection projects
2. The students participated in field experiences that enabled them to reach objectives in each area of study.
 - a. Students visited the ocean to make observations and collect samples of water and plant life. A second trip was to conduct a beach cleanup.
 - b. Students visited Turkey Creek Sanctuary, a nature center located within our community, to observe and collect data on the local wildlife and plants.
 - c. Students visited the Merritt Island Sanctuary on another trip to observe and collect data on wildlife and plants.

- d. Students visited the Solar Energy Center to gather information on energy conservation and solar energy production.
 - e. Students visited the Kennedy Space Center to gain an understanding of how solar energy impacts the space program.
3. Students used the information during these field experiences to conduct experiments and to create graphs, models, habitats, pictorial displays, and written and oral reports.
4. Students used the information gathered to create multi-media productions and displays that were shared with the general education population.

III. Evaluation

A. Assessment of Student Performance

Students' performances were assessed both formatively and summatively through demonstrations of mastery, including the use of technology for research and for production. Student research portfolios included multimedia presentations on their assigned social/environmental topics. Peers at Discovery Elementary provided audiences for student presentations. Teacher observation and assessment of student projects provided additional evaluative data. All gifted students participated in conducting and presenting their research.

B. Project Evaluation

Project reports have been made available, and students' projects and related activities have been documented as discussed in previous sections of this Project Summary. Records and financial reports have been made available through appropriate channels, and community involvement has been documented through field trip records and correspondence with local organizations such as the Brevard Zoo.

IV. Budget

The total program budget was \$11,999.35. An itemized list of expenditures is available upon request.

V. Contact Person

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**Brevard County School District
Sea Park Elementary School**

Project Title: Math Application And Problem Solving For Life Skills (M.A.P.S.)

I. Project Goals and Rationale

Sea Park Elementary School continues to strive for educational excellence through innovative teaching strategies and interactive programs. Math Application and Problem Solving for Life Skills (M.A.P.S.) project goals are to prepare the students to become successful citizens and productive leaders in today's society. This program is designed specifically to actively involve the students in learning and practicing critical life and business skills necessary to survive in today's ever-changing world.

M.A.P.S. is designed to meet all of the Goal 3 Standards for the Florida Education Goal 3 - Student Performance. The students will become information managers, effective communicators, numeric problem solvers, creative and critical thinkers, ethical and responsible workers, resource managers, systems managers, cooperative and effective leaders, and culturally sensitive learners.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	37	Gifted teachers	1
General education students	8	General education teachers	1
Students with disabilities	0	Teachers of students with disabilities	0
Administrators	2	Parents	16
Community members	13	Other participants	3
Total number of participants			81

A. Significant Problem or Issue Addressed

Math Applications and Problem Solving for Life Skills is designed to enhance the existing mathematics and science curriculum by providing more real life applications and problem solving experiences. The students use technology and work together collaboratively with businesses in their community to acquire skills and solve problems that will prepare them to become competent citizens and professionals in the future.

B. Curriculum Content Focus

Four basic themes were explored in this project. The nine week themes were budgeting, investing, business, and scientific design. The curriculum was integrated in all areas including language arts, math, science, social studies, technology, and art.

During the budgeting theme, students selected a career, earned a salary, paid bills, and wrote checks. They learned about banking systems, income taxes, housing, purchasing cars, insurance, and tracking a budget. Focus: Real-life Math Applications and Economics

The investing theme was designed for each student to start with a given amount of fictitious money, invest it in a variety of ways, update the investment results at least every three weeks, and evaluate net loss or gain at the end of nine weeks. Focus: Real-life Math Applications and Economics

Small business management was the focus for the third theme. A florist assisted the students in setting up a school-based enterprise selling flowers to the student population. Focus: Marketing, Communication, and Mathematics

The fourth theme engaged students in a variety of projects using K'nex manipulatives. Two main projects were required of the students. The first involved the students working cooperatively in engineering teams to construct roller coasters according to specifications. In the second project, each student was required to design a complex machine that had some movable part(s) driven by a power source. Focus: Science, Math, and Problem-Solving

C. Sunshine State Standards Addressed

1. Language Arts

a. Reading

Standard 1: the student uses the reading process effectively (LA.A.1.2, LA.A.1.3)

Standard 2: the student constructs meaning from a wide range of texts (LA.A.2.2, LA.A.2.3)

The students read information on businesses, investments, and other real world communications. The students gathered information using the computer and read information on construction, investment markets, and business practices on a regular basis.

b. Writing

Standard 2: the student writes to communicate ideas and information effectively (LA.B.2.2, LA.B.2.3)

The students wrote many thank you letters and business letters. They also wrote informative descriptions of their science models and answered several surveys evaluating the project.

c. Listening, Viewing, and Speaking

Standard 1: the student uses listening strategies effectively (LA.C. 1.2, LA.C. 1.3)

Standard 2: the student uses viewing strategies effectively (LA.C. 2.2, LA.C. 2.3)

Standard 3: the student uses speaking strategies effectively (LA.C. 3.2, LA.C.3.3)

Working collaboratively in small groups, the students used their listening, viewing, and speaking skills on a daily basis. Students also used these skills during field trips to area businesses, when guest speakers visited our classroom, and when presenting results and projects to their classmates.

d. Language

Standard 2: the student understands the power of language (LA.D. 2.2, LA.D. 2.3)

The students used verbal communication in promoting the flower and card sales, communicating with business owners, and working cooperatively with peers and the school community.

2. Mathematics

a. Number Sense, Concepts, and Operations

Standard 1: the student understands the different ways numbers are represented and used in the real world (MA.A.1.2, MA.A.1.3)

Standard 2: the student understands number systems (MA.A.2.2, MA.A.2.3)

Standard 3: the student understands the effects of operations on numbers and the relationships among these operations, selects appropriate operations, and computes for problem solving (MA.A.3.2, MA.A.3.3)

Standard 4: the student uses estimation in problem solving and computation (MA.A.4.2, MA.A.4.3)

Standard 5: the student understands and applies theories related to numbers (MA.A.5.2, MA.A.5.3)

Through the school-based enterprise, the students used numbers in problem solving and real world situations. They also estimated and used prediction for number of sales. The students manipulated numbers on a regular basis in the investment unit.

b. Measurement

Standard 1: the student measures quantities in the real world and uses the measures to solve problems (MA.B.1.2, MA.B.1.3)

Standard 2: the student compares, contrasts, and converts within systems of measurement (both standard/nonstandard and metric/customary). (MA.B.2.2, MA.B.2.3)

Standard 3: the student estimates measurements in real world problem solving situations (MA.B.3.2, MA.B.3.3)

Standard 4: the student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real world situations. (MA.B.4.2, MA.B.4.3)

The students used these standards through direct involvement in creating models using the K'nex manipulatives provided through the Challenge Grant. They also used these measurement standards in the estimating and cutting of plastic wrap needed to prepare the flowers for delivery in their school-based business.

c. Geometry and Spatial Sense

Standard 1: the student describes, draws, identifies, and analyzes two and three dimensional shapes. (MA.C.1.2, MA.C.1.3)

Standard 2: the student visualizes and illustrates ways in which shapes can be combined, subdivided, and changed. (MA.C.2.2, MA.C.2.3)

The students used these geometry skills in creating the roller coasters and models of their own design.

d. Algebraic Thinking

Standard 1: the student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions. (MA.D.1.2, MA.D.1.3)

Standard 2: the student uses expressions, equations, inequalities, graphs, and formulas to represent and interpret situations. (MA.D.2.2, MA.D.2.3)

The students analyzed data during the investment theme on a weekly basis. The students followed the stock market, interpreted graphs, made generalizations, used formulas, and created graphs.

e. Data Analysis and Probability

Standard 1: the student understands and uses the tool of data analysis for managing information. (MA.E.1.2, MA.E.1.3)

Standard 2: the student identifies patterns and makes predictions from an orderly display of data using concepts of probability and statistics. (MA.E.2.2, MA.E.2.3)

Standard 3: the student uses statistical methods to make inferences and valid arguments about real-world situations. (MA.E.3.2, MA.E.3.3)

Students incorporated data analysis and probability as they analyzed the change in their investments. They used appropriate technology such as computers and calculators in the process.

3. Science: Force and Motion

Standard 1: the student understands that types of motion may be described, measured, and predicted. (SC.C. 1.2, SC.C. 1.3)

Standard 2: the student understands that the types of force that acts on an object and the effect of that force can be described, measured, and predicted. (SC.C. 2.2, SC.C. 2.3)

4. Social Studies: Economics

Standard 1: the student understands how scarcity requires individuals and institutions to make choices about how to use resources. (SS.D. 2.2, SS.D. 2.3)

The students investigated the production, distribution, and sale of products through Junior Achievement, local businesses, and their school-based enterprise. The students studied the specialized institutions of banks, stock markets, corporations, small businesses, and accounting firms.

D. Instructional Methodology Used

The students worked in flexible groups to complete given tasks in each of the four basic themes: budgeting, investing, business, and scientific design. The students interacted to solve given problems, successfully complete projects, and become profitable business managers. The school-based projects integrated numerous facets of learning in the classroom with the classroom teacher working collaboratively with the gifted-student teacher to implement the project. Computer software, field trips, and numerous guest speakers also supplemented the program.

E. Nature of the Collaboration

This project involved the students collaborating with the business community in all four themes. Also, the students worked together among themselves during most of the assignments within the themes. Specific activities that involved collaboration are marked with ** in the Project Activities section.

The purpose for this collaboration was to stress the importance of successfully being able to work with other people in society. This is necessary for good citizenship as well as a successful career. Working together with businesses also provided role models for the students.

F. Project Activities

1. Budgeting

- a. Students read about and evaluated the pros and cons of different careers. They used a set of books entitled *VGM Careers for You Series*.
- b. Students produced a list of top ten career choices and then selected one.
- c. The mean salary for the job selected was obtained from the internet at <http://stats.bls.gov/>. This is the web site for the Bureau of Labor Statistics.
- d. **A manager from NationsBank provided the students with checks, check registers, deposit slips, and cover. She also explained to the students the various services a bank provides its customers. The students completed an application for a car loan. The students took a field trip to NationsBank.
- e. Hands on lessons were provided in check writing, balancing a checkbook, and completing deposit slips.
- f. Students created mailboxes for receiving and paying bills.
- g. **A Certified Public Accountant visited the classroom and worked with the students to help them compute from the mean hourly wage their bi-weekly paycheck. This included computing an estimated income tax and deducting both the income tax and social security from the salary before computing their paycheck.
- h. Budgeting of money was reviewed with the students. Students played hands on banking and budgeting board games.
- i. **Students began career (budgeting) simulation. They received paychecks, bought or rented housing, purchased cars, and received and paid bills, updating their bank accounts as necessary. Unexpected random expenses occasionally occurred. The collaboration among students took place when (or if) several students decided to share housing and bills.
- j. Students created monthly budget charts on the computer using *Clarisworks Spreadsheet* to keep track of their monthly expenses.
- k. Students wrote thank you letters and business letters during themes as necessary.

2. Investments

- a. **Students studied different types of investments (stocks, bonds, mutual funds, real estate, savings accounts, money market accounts, commodities, and certificates of deposit) using the book *Taking Stock: The World of Business*. A guest speaker (a professor of economics and owner of an investment company) also explained various types of investments and addressed the students' questions about investing money.
- b. Students learned how to track investments on the internet and in the newspaper.
- c. Students were given \$10,000 in fictitious money to set up an investment portfolio.
- d. Multiple line graphs were constructed using *Data Explorer* software package to keep track of the investments. Students were required to update their portfolio at least every three weeks, but most students preferred to track investments weekly.
- e. Net profits (loss) were computed at the end of nine weeks.

3. School-Based Enterprise

- a. **Students participated in the Junior Achievement Program, the Florida TODAY Design-An-Ad program, and used *Hot Dog Stand: The Works* and *Math Shop Deluxe* software programs to better prepare them to run a small business.
- b. **The students created and performed a school-wide marketing survey using the *Data Explorer* program. The students then tallied all of their results in order to estimate the number of carnations to be purchased from the florist.
- c. The students learned to create cards using a variety of software. Sample cards were created as part of a marketing strategy to increase sales. If students purchased three

carnations, they received a free “personalized” card. The carnations and cards were sold for Valentine’s Day.

- d. The students advertised via posters, school marquee, and the school television network.
 - e. **Students decided the selling price and marketing strategies. They advertised, took orders, balanced the books, prepared the flowers and cards for delivery, made the deliveries, took and handled any customer complaints or errors, and determined the profit. The profit was used to perpetuate the M.A.P.S. program.
 - f. **Students designed and made copies of a thank you note to students and teachers for participating in the business and delivered one to each classroom to be displayed.
4. Science Model
- a. Students used *Incredible Machine* software to build complex machines from simple machines. Students became familiar with K’nex building sets by using them to create different models.
 - b. **Students took a field trip to Brevard Community College (BCC) Planetarium and Orlando Science Center.
 - c. **With the help of an engineer from Boeing Company, the students were divided into two engineering teams with specific jobs. Each engineering team then constructed a roller coaster using the K’nex building sets. Design specifications for the roller coasters were provided, but the teams worked cooperatively and collaboratively to complete the project.
 - d. Each student evaluated his/her role in the engineering project, as well as the overall project itself.
 - e. Each student drew or provided a written description of a machine he/she wanted to create.
 - f. Each student created his/her own design using the K’nex building sets. The criterion was to use your imagination to create a machine or device having some moving part(s) powered by a motor pack. (The field trips and software utilized sparked their imaginations.)
 - g. Pictures were taken of each student with his/her machine, and then the student wrote about the experience of building it.

III. Evaluation

A. Assessment of Student Performance

1. Each student kept a portfolio containing items from each theme. Some examples of items are
 - a. vocabulary appropriate to each theme
 - b. budgeting: list of careers, computation of take-home pay worksheet, samples of checks, deposit slips, check registers, bills paid, and monthly budget spreadsheet
 - c. investment: list of investments, periodical updates of investments, graphs tracking investments of nine weeks, and calculation sheet containing net profit/loss of investments
 - d. school-based enterprise: sample order sheets, advertisement poster, sample card and computation of expenses and profit
 - e. science model: engineering evaluation, description or drawing of model, and picture of student with completed model and its description and evaluation
2. Projects: Roller Coaster and the Student Designed Model
3. A business post-test was given to each student and assessed.

B. Project Evaluation

1. Students were given a business pre-test at the beginning of the school year. The test contained vocabulary, short answer questions about business and investing, and a business application section that included completing a check and deposit slip along with recording and balancing a check register. At the end of the school year, a post-test was given. A goal of at least 10% increase per student was set. Results are below.

Student Number	Pre-test Percentage	Post-test Percentage
1	36%	95%
2	29%	92%
3	18%	98%
4	NA	60%
5	NA	89%
6	45%	96%
7	31%	92%
8	38%	99%
9	43%	84%
10	10%	90%
11	34%	98%
12	28%	99%
13	29%	96%
14	52%	100%
15	48%	90%
16	24%	97%
17	54%	86%
18	54%	99%
19	62%	92%
20	NA	92%
21	22%	83%
Average	36.5%	91.76%

The students' scores increased an average of 55.26 points.

2. Student surveys, parent surveys, and teacher evaluations and recommendations were completed throughout the project. Samples are available upon request.

IV. Budget

The project received a budget of \$7,400.00 for software, field trips, conferences, and assorted materials necessary to support the project.

Field Trips: NationsBank, Brevard Community College (BCC) Planetarium, and Orlando Science Center	\$1040.00
Software Programs	\$1000.00
Conferences: two teachers attended the Florida Association for the Gifted Conference	\$270.00
Supporting Materials:	
K'nex sets and motor packs	\$4300.00
Card stock and printer cartridges	\$230.00
Books, banking and budgeting games, and miscellaneous supplies	\$560.00
Total Cost	\$7400.00

V. Contact Person

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**Clay County School District
Green Cove Springs Junior High School**

Project Title: Project R.E.A.C.H. (Researching Extensively Our Artistic Cultural Heritage)

I. Project Goals and Rationale

The goals of the R.E.A.C.H. Project were to capitalize on the diverse characteristics often exhibited by gifted students. The R.E.A.C.H. Project enhanced the social studies curriculum by providing opportunities for students to explore and collaborate in multiple disciplines. This project included problem solving, abstract thinking, and complexity of ideas in order for students to understand the relevance and relationship of their studies to global interdependence, independence, and economics. Students were to become more proficient in technology, more resourceful in research, and more capable in collaboration. Students could transcend the boundaries of the classroom and reach out to the community and the world through this project.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	45	Gifted teachers	1
General education students	65	General education teachers	20
Students with disabilities	10	Teachers of students with disabilities	2
Administrators	3	Parents	6
Community members	12	Other participants	3
Total number of participants			310

A. Significant Problem or Issue Addressed

Project REACH is an acronym for Researching Extensively our Artistic Cultural Heritage. Through the social studies curriculum and by incorporating the Sunshine State Standards for both social studies and the arts, students in the gifted classes researched and reported on the arts as they correlated with the topics being studied.

B. Curriculum Content Focus

The curriculum focus of the 6th, 7th, and 8th grades classes was world history, world geography, and American history, which are part of the junior high curriculum. Through conventional research and with the assistance of the Internet and technology programs, students examined the cultural/historical significance of the five major art forms in the arts curriculum of the Sunshine State Standards: visual arts, dance, instrumental arts, vocal arts, and theater arts. Thus, the relevance of the arts in our cultural heritage was established.

C. Sunshine State Standards Addressed

SS.A.1.3.1 - The student will use various map forms...patterns and processes of migration and diffusion.

SS.A.1.3.2 - The student will use mental maps to organize information about people, places, and environments.

SS.B.1.3.4 - The student will understand how factors such as culture and technology influence the perception of places and regions.

- SS.A.2.3.3 - The student will understand how cultures differ in their use of similar environments and resources.
- SS.A.2.3.4 - The student will understand the impact of geographical factors on the historical development of civilizations.
- SS.A.2.3.5 - The student will know significant historical leaders who shaped the development of early cultures.
- SS.A.4.3.2 - The student will know the role of physical and cultural geography in shaping events in the United States.
- SS.A.4.3.3 - The student will understand the impact of significant people and ideas on the development of values and traditions in the United States prior to 1880.
- SS.A.6.3.3 - The student will know how the environment of Florida has been modified by the values, traditions, and actions of various groups who have inhabited the state.
- SS.A.6.3.5 - The student will understand how the interactions of societies and cultures have influenced Florida's history.
- VA.D.1.3.2 - The student will understand how knowledge, skills, and attitudes gained from the visual arts can enhance and deepen understanding of life.
- VA.C.1.3.1 - The student will understand and use information from historical and cultural themes, trends, styles, periods of art, and artists.
- VA.C.1.3.2 - The student will understand the role of the artist and the function of art in different periods of time and in different cultures.
- TH.E.1.4.4 - The student will understand the necessity of goal setting, self-discipline, punctuality, meeting deadlines, and fulfilling responsibilities when mounting a theatrical production.
- LA.A.2.3.6 - The student will use a variety of reference materials, including indexes, magazines...to gather information for research topics.
- LA.B.2.3.4 - The student will use electronic technology including databases and software to gather information and communicate new knowledge.

D. Instructional Methodologies Used

The instructor

1. facilitated strong student research and expanded on the existing curriculum materials
2. incorporated multi-media materials and technology
3. enhanced the curriculum with cross-cultural folk tales and theater
4. brought in guest speakers who assisted students with their historical characterizations
5. facilitated the use of the Internet
6. allowed students to develop as researchers and share their research with the community as well as with their peers

E. Nature of the Collaboration

Students in the gifted classes collaborated with students in other social studies classes in doing their research and with students in other places via the Internet. Students in other exceptional student education classes and in regular classes were also included in dramatic performances for the school, parents, and the community.

F. Project Activities

Participants in the R.E.A.C.H. Project researched historical figures, events, and countries and shared their findings with their peers. They presented historical characterizations, Power Point presentations, timelines, multimedia presentations, and a theatrical production for the community, parents, and a senior citizens group. They also developed a Web site to share their research. Through the extensive

media coverage their activities received, they came to appreciate the importance of their project to the community.

III. Evaluation

A. Assessment of Student Performance

Students were assessed through pre-tests and post-tests on the material/curriculum covered. Ninety per cent of the students made a B or better on the material covered. Because students were a part of the public performances and because of the increased student participation, student attendance rose slightly.

B. Project Evaluation

The project was evaluated through parent and student surveys, the number of visits to the Web site, the quality of the performances, feedback from the community in the form of surveys and unsolicited letters, and local media coverage.

IV. Budget

The total budget was \$12,000.00.

V. Contact Person

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**Escambia County School District
Bratt Elementary School**

I. Project Goals and Rationale

This project was a successful collaborative curriculum project with the primary focus on the improvement of the quality of the existing gifted program. The natural resources of our school and community were successfully utilized to develop a nature trail for student learning and research. This nature trail is located directly behind our small rural school. The goals of this project addressed the best practices of teacher collaboration and teamwork to complete activities concerning environmental issues, research, and problems. Teachers, parents, gifted students, and general education students all worked together to restore and recreate the nature trail. A representative from the Department of Forestry provided additional support and advice.

The goals of this project were

- A. to develop research skills. Students collected natural data and completed an in-depth independent study and presented it to others.
- B. to develop communication skills. The students produced verbal ideas, brainstormed problem solutions, worked together in cooperative groups, and wrote pre/post-tests for the travelers of the nature trail.
- C. to develop leadership skills. Students led a group through planning and coordination of a project to completion.
- D. to develop skills in independence. The students also learned to work independently to successfully complete a project of value.

II. Project Implementation:

Participants	Number	Participants	Number
Gifted students	22	Gifted teachers	1
General education students	365	General education teachers	17
Students with disabilities	16	Teachers of students with disabilities	2
Administrators	1	Parents	10
Community members	2	Other participants	0
Total number of participants			436

A. Significant Problem or Issue Addressed

The issue of increasing our school's educational and personal needs of our gifted students has been addressed, especially in the area of technology. Gifted students were provided with needed hands-on materials/scientific equipment for scientific observation and experimentation. Students also investigated the problems of the environment, solutions to environmental problems, and our responsibility to care for our world. Students used new computers and software programs to complete research and projects. This grant allowed the school to provide a necessary upgrade in the school's technology for our gifted students.

B. Curriculum Content Focus

The gifted teacher used in-depth integrated thematic units to accomplish the project objectives. The children were actively involved in many outdoor activities involving map skills, geography, and environmental issues in the curriculum area of social studies. Poetry, creative writing, figurative language skills, and expository and narrative writing skills were used for the content area of language arts. Math and science were heavily emphasized in the individual and group research projects

involving the nature trail. In these units, students were allowed to experience all modes of communication, which meets a gifted goal: reading, writing, listening, observing, and public speaking.

C. Sunshine Standards Addressed

Some of the Sunshine State Standards that were met are listed below.

SC.D.1.3- recognized patterns in weather. Students recorded changes in temperature and rainfall daily and compared and graphed the findings for the school year.

SC.D.2.2.1 - students learned that reusing, recycling, and reducing the use of natural resources improve and protect the quality of life. Students worked individually to write a letter about the importance and the “hows” of saving our earth.

SC.G.1.2.1 - students worked to meet this benchmark by observing and researching the ways that plants, animals, and protists interact. Students wrote scripts and acted out a play demonstrating the impact and consequences of interfering with the ecosystem. Students completed research projects.

SC.G.1.2.3 - students each had a plant that they grew through a complete life cycle. Some students placed their plants in direct sunlight, while others experimented with a dark room. They have demonstrated that green plants require carbon dioxide, water, and sunlight to grow.

D. Instructional Methodologies Used

The instructional methodologies used were higher-level thinking individual projects which involved open-ended activities, hands-on projects, cooperative learning group interaction, computer skills, written research, and individualized learning. Bloom’s, Renzulli’s, and Torrance’s theoretical constructs were used to meet the needs and learning styles of gifted children. The outdoor movement and observation/exploration activities of this project were excellent for the kinesthetic gifted learners who thrived on the doing and involvement in this method of learning.

E. Nature of the Collaboration

The collaboration, communication, and overall “team effort” of this project were outstanding. Collaborative efforts between general education teachers and itinerant gifted teachers have always been a challenge, at best. This project created a strong partnership between a third grade teacher and a gifted teacher. This collaboration allowed the gifted students to continue and complete their research and scientific projects in their regular classrooms. The regular education teacher was able to become familiar with the gifted goals and objectives to continue them in the general education classroom. This project provided materials to gifted students who shared the materials with their classmates and taught them how to use the materials in grades 3, 4, and 5. Gifted students, regular education students, the gifted teacher, and regular education teachers worked side by side to build the trail, burn the labels (with a wood burning tool), and paint the signposts which mark the various points of interest along the nature trail. Children learned to rely on each other for the completion of the nature trail signposts.

The gifted students also presented the actual projects showing the following: growing a frog, butterfly farm, growing a root, the worm farm, and ant farm. The projects were then cared for and observed by the entire classroom. When the butterflies were released from the butterfly garden, the gifted students filmed the fourth grade classroom and their butterfly release, which was played on the

closed-circuit T.V. for our whole school to enjoy. Gifted students also presented the weather report on our daily school news. Some of the data were obtained by the gifted children and shared with the school.

Parents volunteered their time in the initial clearing of the nature trail. The Department of Forestry assisted with the identification and labeling of the types of plants, trees, and habitats along the trail. A parent who owns a florist shop also assisted in identification of foliage. The whole school was able to help in the clean-up of the trail. At the project's completion, the whole school traveled the trail to see the points of interest identified by the gifted students.

F. Project Activities

The students completed an in-depth thematic study of life in the rain forest to demonstrate ecology and ecological problems. Students learned the reasons rain forests are being destroyed and ways to protect our world.

Project: Students wrote a paper on how we can save the rain forest. The writing was scored with a rubric, and the students evaluated their own writing skills.

Project: Students in cooperative learning groups researched products that came from the rain forest. Each group was assigned to research an animal, plant, and product from their region. This was an activity to teach research and presentation skills needed for their individual Projects.

Project: Students created a puppet show/commercial on saving the rain forest or products that came from the rain forest. Students were given the opportunities to speak publicly and evaluate their communication in this activity.

Students learned to classify clouds and how to identify them by observing their shape, color, and altitude. Scientific observation skills were also taught in this unit. Students learned about the layers of the atmosphere.

Project: Students created weather stations.

Project: Students took a daily temperature reading off the internet. They kept this information in a Weather logbook. Students recorded temperature, humidity, barometric pressure, precipitation, and wind speed and direction. They also recorded the cloud type and forecast the following day's weather. Some of the data were reported daily to the whole school via closed circuit TV.

Project: Students created new habitats to observe in their regular education classrooms. Students researched and watched ant farms, observed a worm compost pile, grew butterflies from larva and raised them to adults, and grew a root farm.

Project: Students created an attractive written report and gave oral presentations to the gifted class, their grade level class, and lower level grade classrooms (K-2) about these habitats.

Project: Students videotaped their oral presentations to watch for self-evaluations.

Students participated in numerous Project Learning Tree activities. Project Learning Tree is a Florida Department of Forestry Project that encourages students to make intelligent environmental decisions in order to take responsible action in the world around them. They learned how to respect the environment and how to care for it.

Project: Students expressed themselves through a poetry writing assignment.

Students learned about environmental issues that are causing damage to our earth.

Project: Students produced plays about an environmental problem. They presented the play to various regular education classrooms and discussed questions with them.

Project: Students tested outdoor soil from the nature trail for acid. The testing and analysis was a group Project.

Project: Students tested our school for acid rain. The testing and analysis was a group project.

Students cleared a path, identified and researched plants, mapped, and built wooden sign posts for a nature trail behind our school.

Project: Students, teachers, parents, and community members participated in the clearing and identification of plants and foliage along the trail.

Project: Students researched various habitats, and animal, plant, and insect life along the trail. Students collected data and observations using portable AlphaSmarts, peripheral keyboards.

Project: Students mapped the trail for students to follow on their journey through the trail. Students created pre- and post-tests to be used for teachers to measure information gained by the walk through the trail.

Project: Students built wooden sign posts with carpentry tools, wood burning tools, and paint to make attractive nature trail signs to mark the points of interest along our trail. This project was collaboratively done with a general education third grade class and third grade teacher.

III. Evaluation

A. Assessment of Student Performance

Students used a 1-5 scoring guide for all independent projects and oral presentations. They used a self-evaluation checklist after the completion of each project. The scoring guide evaluated their communication skills for an oral presentation and their leadership skills in cooperative group learning situations. All writing was scored with a standard, curriculum based rubric. Students learned to evaluate their own learning as well as respond to the aesthetic value of their project, group work, or written piece. Students kept all work in a work portfolio and in theme based portfolios. The self-evaluation checklist was in front of each project completed. The gifted teacher added a narrative comment to each checklist. The areas of self-evaluation were research, communication, and leadership.

B. Project Evaluation

The survey completed by participating teachers, parents, community members/contacts, and students indicated very positive results. Comments from parents were positive regarding working together to clear the nature trail with their children and the increasing opportunities for environmental learning/activities. Many teachers commented on the increased collaboration with the gifted teacher and the opportunity to learn much more about the gifted program itself. Gifted children commented that they enjoyed learning, that the outdoor learning was "much more fun and exciting," and that they enjoyed the self-evaluation systems.

IV. Budget

The total budget for the Gifted Challenge Grant was \$12,000.00.

V. Contact Person

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**Escambia County School District
Carver Middle School**

Project Title: Tech Pen Is Mightier Than The Sword

I. Project Goals and Rationale

The overall project goal was to improve students' academic performance and prepare them to be flexible and adept with technology, current events, and economics for a successful future. The students live in a small city of 4000 where the closest public library, computer company, museum, and investment firm are thirty miles away. They have few of the opportunities that are taken for granted by many. The Florida State Gifted Challenge Grant has given the students the opportunity to understand and work collaboratively with global groups concerning the relationship of three content areas and the advanced processes involved.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	15	Gifted teachers	1
General education students	200+	General education teachers	12
Students with disabilities	18	Teachers of students with disabilities	2
Administrators	3	Parents	15
Community members	1	Other participants	4
Total number of participants			237+

A. Significant Problem or Issue Addressed

In the regular classroom, gifted students may rarely be involved in addressing high-tech career skills because of the national emphasis on basic skills. To address this problem, students endeavored to become aware of global political and economic problems coupled with the use of technology to research, communicate, simulate, and create. In a world of rapid social and technological change, students need to know how to make intelligent decisions and use creative problem solving.

B. Curriculum Content Focus

1. Japanese, Spanish, English and Urdu languages including conversation, slang, and customs
2. global and local terrorism
3. economics (Investing in the stock market and global economic interdependence)

C. Sunshine State Standards Addressed

SS.B.1.3.4 The student understands how factors such as culture and technology influence the perception of places and regions.

SS.C.2.3.7 The student understands current issues involving rights that affect local, national, or international political, social, and economic systems.

SS.D.2.3.3 The student knows the various kinds of specialized institutions that exist in market economies (e.g. stock market).

LA.B.2.3.4 The student uses electronic technology including databases and software to gather information and communicate new knowledge.

LA.A.1.3.4 The student uses strategies to clarify meaning, such as rereading, note taking, summarizing, outlining, and writing a grade-level-appropriate report (mailing lists, e-mail post office, web sites).

D. Instructional Methodologies Used

- idea generating tools: brainstorming, attribute listing, and morphological matrix
- practice processes for effective problem solving: case studies, simulations, role playing
- working with real problems and carrying them into action: personal, group, and community/global concerns, new products, projects, and programs

E. Nature of the Collaboration

Students operated a global mailing list, e-mail post office, web editing sessions, and stock market studies with classes and businesses in Malaysia, Germany, Sweden, Pakistan, Australia, USA, Hong Kong, Oman, and Japan. Pam Schwarz, Escambia County, Florida Gifted Resource Teacher served as methods consultant. Linda Thompson, Escambia County, Florida Language Arts and Reading Department Head served as a consultant. Rehan Ahmed, CEO of Pakistan Computers, served as administrator of the global mailing list, homepage, and Internet training. The purposes of these collaborative activities were to brainstorm problems that participants had in common, to organize sub-groups to do further research on chosen problems, and to carry projects into action. Finally, the groups evaluated the progress of each activity for improvement. The collaborations enhanced the gifted students' academic achievement in that they learned key Internet skills; globally shared problems; Japanese, Urdu and Spanish languages; and how to analyze the stock market. Ninety-two percent of the students increased or matched their California Achievement Test scores from last year to this year.

III. Evaluation

A. Assessment of Student Performance

Students kept a portfolio on disk, hard copy folder, web site, and e-mail of their progress and projects. Assessment was based on the following questions: Is the student going beyond the level of "what"? Initiating ways of doing things different from the usual way? Not avoiding difficult material? Looking for similarities and differences in events and people? Organizing complicated information by separating it into parts? Using advanced, elaborate vocabulary? Completing tasks? Students, parents, and teachers assessed the portfolios and decided that the students met on an average between 4 to 7 of the questions.

Neutral assessments were completed by professional companies such as JPWeb, Web66, Pakistan Web Directory, and Midlink Magazine concerning the student created and maintained web site <http://www.rehan.com/carver/>. The site won Top Education Site and TOP 50 Webs by JPWeb, Web66 school by Web66, recommended education link by Pakistan Web Directory, and Website of Excellent Creative and Educational Quality by Midlink Magazine.

Unfortunately, our web site is no longer online on the original server and with the original content and projects in the Gifted Challenge Grant. Escambia County administrators mandated the site be

shut down and transferred to their server minus the e-mail links, the guest book, and the mailing list in April 1999 (all of which shut down the collaborations among 656 individual students, teachers, and professionals in schools and businesses around the world). A threatening message had been placed on our guestbook. Our web site is now at

<http://www.escambia.k12.fl.us/schscnts/carm/index.htm>

Students' understanding of current issues involving rights of global citizens were assessed for their fundraising project with the Red Cross for Kosovo, their Terrorism Defined web site at <http://www.escambia.k12.fl.us/schscnts/carm/index.htm> and their World Peace Collaboration with Japan (folding over 1000 paper cranes and exchanging flat Stanley characters with Japanese classrooms).

B. Project Evaluation

Students completed a pre and post general knowledge test of technology, current events, and economy. On the pre-test, students wrote "don't know" or very short or general answers. On the post-test, students wrote essay answers with accurate and creative discoveries included. A comparison was also made between the students' 1997-98 and 1998-99 California Achievement Test scores. Ninety-two percent of the students improved or matched their California Achievement Test scores from last year to this year.

Two workshops were presented to disseminate the project strategies.

IV. Budget

\$10,950.46 (Toshiba laptop for check out, 4 Gateway computers, 3 Hewlett Packard printers, sound cards, speakers, mikes; web editing, simulation and Office97 software; and life-size Jeopardy and Wheel of Fortune simulations)

V. Contact Person

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Gulf County School District

I. Project Goals and Rationale

Information not provided.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	5	Gifted teachers	0
General education students	40	General education teachers	6
Students with disabilities	3	Teachers of students with disabilities	0
Administrators	6	Parents	8
Community members	15	Other participants	0
Total number of participants			131

A. Significant Problem or Issue Addressed

The purpose of this project was to promote a partnership between the Gulf County School System, parents, and the community to help develop enrichment activities for the gifted, talented, and accelerated students.

B. Curriculum Content Focus

This project focused on the implementation of Odyssey of the Mind (OM) teams at five schools. Mentoring activities were organized. Career awareness and daily living were incorporated.

C. Sunshine State Standards Addressed

Critical thinking skills, cooperative learning, and teamwork concepts were expanded in the various projects.

D. Instructional Methodology Used

Academic coaches were the instructional coordinators at each site. Students were the implementers. Self-directed approaches were encouraged.

E. Nature of the Collaboration

Teams at each school had business partners, parent support groups, and student leaders who arranged activities that enhanced their exposure to problem solving techniques. The inclusion of the talented high-achieving and gifted students provided positive role models.

F. Project Activities

1. community service project
2. tutorial service
3. Odyssey of the Mind competition

III. Evaluation

A. Assessment of Student Performance

The students participated in the OM tournaments in the regional and state competitions.

B. Project Evaluation

Three out of four teams made it to the state level.

IV. Budget

The total project budget was \$12,000.00.

V. Contact Person

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Hillsborough County School District
Project Title: Making The Mind Shift To Brain-compatible Classrooms

I. Project Goals and Rationale

The project goals were

Goal 1

to meet the academic needs of gifted students through the reformation of gifted teacher education by implementing a two-tiered teacher/mentoring training model using eight brain-compatible curriculum designs for writing curriculum

Goal 2

to enhance student learning through the redesign of instruction for high-end learners using brain-compatible learning in a variety of delivery models including basic pullout, magnet, and co-teaching

Goal 3

to support collaboration between students, teachers, and the community for the enhancement of student instruction through technology by using e-mail and a web site for gifted education

Rationale

The rationale for the project was founded on the theory of brain-based learning, an approach to learning which favors the brain's best, natural principles for learning. The theory behind brain-based learning is that optimum learning occurs when the learner feels relevantly connected to the subject matter, is intrinsically motivated, enjoys the learning process, feels competent as a learner, is interested and actively involved in the subject, wants to return to the activity again, and is able to generalize the learning process across other areas.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	250	Gifted teachers	100
General education students	100	General education teachers	25
Students with disabilities	1	Teachers of students with disabilities	1
Administrators	200	Parents	50*
Community members	100*	Other participants	
Total number of participants			

* Web site address: <http://www.sdhc.k12.fl.us/~gifted.elementary/>

A. Significant Problem or Issue Addressed

1. to enhance student learning through the redesign of instruction for high-end learners using brain-compatible learning in a variety of delivery models including basic pullout, magnet, and co-teaching
2. to support collaboration between students, teachers, and the community for the enhancement of student instruction through technology by using e-mail and a web site for gifted education

B. Curriculum Content Focus

As a result of this project, the participants created a curriculum framework, posters, and training materials. These materials were a compilation of information gathered from conferences and workshops. The materials include printed training materials and overheads, posters, handouts, and fliers.

C. Sunshine State Standards Addressed

Goal 1: to meet the academic needs of the gifted student through the reformation of gifted teacher education

Sunshine Education Goal 6:

The schools, districts, and state ensure professional teachers and staff.

Standard #6.

continual improvement of personnel so they can help students master the standards and outcomes based on needs identified in each school

Goal 2: to enhance student learning through the redesign of instruction

Sunshine Education Goal 3:

Student Performance: Students successfully compete at the highest levels nationally and internationally and are prepared to make well-reasoned, thoughtful, and healthy lifelong decisions.

Standard #4.

Florida students use creative thinking skills to generate new ideas, make the best decisions, recognize and solve problems through reasoning, interpret symbolic data, and develop efficient techniques for lifelong learning.

Goal 3: to support collaboration between students, teachers, and community members for the enhancement of student instruction through technology

Sunshine Education Goal 3:

Student Performance: Students successfully compete at the highest levels nationally and internationally and are prepared to make well-reasoned, thoughtful, and healthy lifelong decisions.

Standard #7.

Florida students integrate their knowledge and understanding of how social, organizational, informational, and technological systems work with their abilities to analyze trends, design and improve systems, and use and maintain appropriate technology.

D. Instructional Methodology Used

Below is a list of the primary instructional methodologies used throughout this project.

reflective writing
discussion
direct instruction
listing
mentoring
journals
3-way calling
displays
written report

guided reading
jigsaw and share out
chart making
interviewing
editing
presentations
e-mailing
artifact creation
article reviews

product construction
reading on your own
concept mapping
surveying
paired thinking
homework
internet search
oral report
book chats

E. Nature of the Collaboration

Collaborative Activities	Purpose	How did it enhance learning?
Meetings of the Trainer of Trainers with Project Coordinator	<ul style="list-style-type: none"> define the project, set expectations, and discuss products model brain-compatible teaching strategies practice the use of brain-compatible learning tools create group cohesiveness construct a foundation of knowledge develop networks/systems assess if the system of inservice is working 	<p>Participants</p> <ul style="list-style-type: none"> experienced "brain-compatible" learning, connected to relevancy engaged in activities that created group bonding and memory, involved emotion provided time to practice tools of the brain-compatible classroom: mapping, controlled foundering, the sense of uniqueness, constructivism
Weekly scheduled meetings person to person via e-mail, fax, 3-way calling between Trainer of Trainers (TOT) and Trainer (T)	<ul style="list-style-type: none"> share foundational knowledge plan and implement curriculum deliver model critique progress address issues and concerns establish the TOT/T relationship 	<ul style="list-style-type: none"> has opportunities for sharing of foundational knowledge gave assistance in planning and implementing the selected curriculum delivery model encouraged the critiquing of daily lessons operationalized the TOT/T mentorship process
Coordinator shared project with elementary school principals and assistant principals	<ul style="list-style-type: none"> advertise available resources make administrators aware of benefits of implementing brain-compatible learning 	<ul style="list-style-type: none"> improved the quality of learning better met the needs of elementary students
Celebration and Introduction of the Tour de Force	<ul style="list-style-type: none"> celebrate success present completed materials share ideas 	<ul style="list-style-type: none"> brought closure to phase 1 of the project energized the implementation for next year validated thinking

F. Project Activities

1. attended Association for Supervision and Curriculum Development (ASCD) conferences
 - a. Service Learning and the Community as a Classroom
 - b. Translating Brain Research into Classroom Practice
 - c. Teaching and Learning: Connecting Curriculum and Assessment
2. attended Gifted Weekends with the Experts
3. attended the Confratute on Gifted Education
4. made presentations to steering committee on essential understandings from the conferences, Weekends with the Experts, and Confratute
5. attended the National Association of Gifted Children annual meeting
6. developed and formatted training materials and training sessions
7. implemented Trainer of Trainers model with weekly meetings
8. presentation of Concept of Brain-compatible Classrooms to principals and elementary assistant principals
9. final celebration

III. Evaluation

A. Assessment of Student Performance

As a result of implementing brain-compatible learning, a list of student outcomes was created. This list is available upon request. Narratives of teacher and student performance is described in a compilation of printed narrative descriptions of the projects and is available upon request. An analysis of the statements indicating levels of higher thinking was compiled.

Overall impact: 33 schools, 73 classrooms, 21 trainer of trainers, 52 trainers, 100 elementary and middle school teachers of gifted, more than 200 elementary and middle school students, 100 elementary principals, 107 elementary assistant principals, 4 district administrators of gifted programs for neighboring school districts, the Working on Gifted Issues (WOGI) project manager, and 1 entire elementary school with a 65 member faculty and 1,038 students were touched by this project.

B. Project Evaluation

1. Outcomes

- a. A new two-tiered staff development training model was successfully used as documented by narratives.
- b. There are 73 trained trainers located across the district ready to help schools implement brain research in the classroom.
- c. High impact materials are available for implementing brain-compatible learning.
- d. Elementary principals and assistant principals were made aware of available brain-compatible training resources.
- e. Advertising materials for implementing brain-compatible training were distributed this fall in all elementary and middle schools.

2. Products

- a. three-ring binder titled Brain-compatible Learning in the Classroom
- b. booklet of projects: Brain-compatible Learning in the Classroom
- c. flier advertising brain-compatible learning
- d. frameworks and posters
- e. district web site for gifted education

IV. Budget

The total project budget was \$12,000.00.

1. Stipends: \$7,342
2. Fringe: \$1,938
3. Travel: \$ 720
4. Materials: \$2,000

V. Contact Person

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**Miami-Dade County School District
Blue Lakes Elementary School**

Project Title: World Center News on the Net

I. Project Goals and Rationale

- A. to train the teachers of gifted students in using technology to produce an effective and efficient internet newspaper
- B. to refine students' abilities to use writing as a vital form of communication through the production of an electronic newspaper
- C. to involve parents, community and business partners in the training and production of such a newspaper
- D. to create an original, quality student generated newspaper that is published throughout the school year and demonstrates training and continuous growth along with ongoing refinement of technical skills

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	68	Gifted teachers	2
General education students	0	General education teachers	0
Students with disabilities	0	Teachers of students with disabilities	0
Administrators	3	Parents	As needed
Community members	As needed	Other participants	As needed
Total number of participants			73

A. Significant Problem or Issue Addressed

No information provided.

B. Curriculum Content Focus

The students were taught the writing process, editing, final drafts, leadership skills, time management, cooperative working, responsibility, and some technical skills to work with the computers. The components of Miami-Dade County's Competency Based Curriculum as well as designated Florida Sunshine State Standards were covered.

C. Sunshine State Standards Addressed

LA.A.1.1.3 Students will use grade level appropriate vocabulary in reading research materials.

LA.A.1.2.4 Students will classify information gathered for newspaper and discuss validity of materials.

LA.B.1.1.2 Students will create drafts and revise writing that reflects clearly stated ideas, awareness, beginning, middle, and end and will include supporting details.

LA.B.1.2.1 Students will participate in various group discussions in order to identify the purpose for writing.

SSA.1.1.1 Students will compare everyday life with different places and times and journal the changes that occur in society.

SSA.1.2.1 Students will understand how individuals, ideas, decisions, and events influence history.

D. Instructional Methodology Used

The primary instructional methods used were those that included the district gifted goals and objectives, gifted goals and objectives chosen by the teachers, and the Competency Based Curriculum design for teaching. Methods included cooperative learning within group settings, field trips to the local newspaper, research of topics, interviews of peers and faculty throughout the school, demonstrations by teachers and students, presentations by students, hands on activities on experiences in the world of journalism, and the use of technology.

E. Nature of the Collaboration

The students worked in collaborative activities in the classroom. The students experienced leadership skills and worked cooperatively in group situations. The importance of interdependence of group members was stressed for ownership of time management. Students utilized self-monitoring which enhanced time management. Time on task at maximum level resulted in the accurate completion of the assigned task. The students understood the production of a newspaper as a result of the contribution of each group member.

F. Project Activities

The students applied and interviewed for positions in the World Center News on the Net project. The students researched and put together a hard copy version of the actual newspaper that was to be designed on the web. However, due to the delay of materials and equipment, students were only able to publish a hard copy of the newspaper. The teachers planned the daily lessons involving the activities for the students to work on. The administrators, teachers, and the school secretary collaboratively ordered software and equipment needed for the program.

III. Evaluation

A. Assessment of Student Performance

Two types of student assessment were implemented: cooperative group assessment and individual student assessment. Each of the cooperative groups produced weekly work schedules detailing the participants' duties and goals. Special attention was given to the amount of time spent on task and the quality of the product. Self-assessment using a ten point rubric, group assessment by peers and teachers, as well as portfolio assessment were utilized. One hundred percent of the students produced weekly work and were also involved in the scoring process of their individual and group work. Ninety-five percent of the students adhered to their deadlines which allowed timely completion of a hard copy newspaper.

B. Project Evaluation

The project was to be evaluated depending on the success of publishing on the web. The evaluation process had to be altered because the necessary materials that were ordered on time did not arrive until after the students left for summer break. Although we could not publish the newspaper on the web, the students received a tremendous amount of experience during the process of this project. Because of the delay in receiving materials and equipment, we have extended the project to June 2000.

IV. Budget

The total budget for the program was \$12,000.00. The money spent on capitalized equipment was \$11,808.00, and \$192.00 was spent on supplies. The equipment purchased included five Dell computers, one digital camera, one scanner, two printers, a projector, and software for publishing on the web.

V. Contact Person

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**Miami-Dade County School District
Perrine Elementary School**

I. Project Goals and Rationale

The gifted students collaborated with the Creative Abounds Students (at risk students) to appreciate the interdependence of South Florida’s unique natural ecosystems. Students focused on understanding the need for effective participation in the community that affects the students’ environment.

A strong rationale is provided. Through the use of interactive technology, visitations to local environmental areas, and interaction with local authorities, the mission was to develop each child’s academic potential, social and cultural awareness, and sense of self-importance in a positive and supportive environment as students investigated environmental issues. The project provided students with the ideal situation to develop academic skills that in turn promote life long learning and create a solid foundation in environmental education for them as they advance toward educational and personal achievement.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	35	Gifted teachers	2
General education students	27	General education teachers	0
Students with disabilities	0	Teachers of students with disabilities	0
Administrators	2	Parents	4
Community members	21	Other participants	0
Total number of participants			91

A. Significant Problem or Issue Addressed

The devastation from Hurricane Andrew continues to affect both residential stability and employment opportunities for parents, allowing them little opportunity to travel and afford technology. This program helped pupils understand the intricate web of interrelationships that link them with plants, animals, water, and environmental issues by visitations to local ecosystems, interviewing local scientists, and using technology as the catalyst.

B. Curriculum Content Focus

The content focus is on environmental studies, science, technology, research skills, critical and creative thinking, and language arts.

C. Sunshine State Standards Addressed

1. predict the cause of biodiversity
2. describe and classify South Florida’s ecological communities
3. Distinguish between renewable and nonrenewable resources
4. observe the gradual process of decomposition and explain its role in the environment
5. generate strategies and draw conclusions as to strengths and weaknesses of the strategies used to protect South Florida’s plants and animals
6. explain the interaction among the following: soil, water, sunlight, temperature, producer, consumer, decomposer
7. observe and describe continuous changes in our coral reef

8. investigate/list reasons for the increases and/or decreases in populations of animals and plants
9. understanding periodic changes in other ecosystems
10. be able to argue for or against an environmental issue by comparing facts, opinions, and ideas

D. Instructional Methodology Used

The methodology that was used for the gifted students included

1. establishing priorities for effective group operation
2. facilitating the workings of the group and helping involve all group members
3. planning both long and short-range projects
4. gathering and documenting data relevant to the selected topic
5. drawing conclusions and making inferences from collected data
6. analyzing the methods of research used by scientists in the environmental fields and comparing these to one's own research methods

E. Nature of the Collaboration

Collaboration of the gifted and at risk students enabled students of different academic status to investigate environmental issues and projects on a regular basis. Activities included technological networking, visiting local ecosystems, and interviewing local naturalists, scientists, and experts.

F. Project Activities

1. visits to Everglades National Park, Big Cypress Swamp, Fairchild Tropical Gardens, Marjorie Stoneman Douglas Biscayne Nature Center, Metro-Dade Solid Waste Site, Metro Zoo, Pennekamp Coral Reef State Park, Miami-Dade Community College Environmental Center, A.D. Barnes Park-Bear Cut Marine Center
2. compilation of local newspaper articles related to environmental issues, problems, and concerns
3. compilation of a list of native plants
4. compilation of animals that adapt well to man-made changes in the environment
5. creation of murals depicting visits to the local native ecosystems, parks, and exhibits
6. interviews with local homeowners regarding their landscaping choices
7. creation of a "Good News-Bad News" bulletin board about current South Florida issues
8. creation of a web page
9. making a scrapbook of the project
10. role play

III. Evaluation

A. Assessment of Student Performance

Direct and frequent assessment of student performance included journal entries, pre- and post-tests, project completion, portfolios, web page, and murals.

B. Project Evaluation

The project was evaluated through students' performances and their understanding of the need to be aware and involved in their local environment. Students were evaluated on their ability to work and complete individual and group activities. Project evaluation included observations of students using technology as the catalyst to give them a global perspective of local issues.

Results indicated that most of our students felt comfortable using technology as a working tool. All students became knowledgeable about our local ecosystems and proactive in preserving our local habitats.

IV. Budget

Budget for the project was \$12,000.00.

Pupil transportation	\$1,816.00
Capital equipment	<u>\$10,184.00</u>
Total	\$12,000.00

V. Contact Person

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**Miami-Dade County School District
William Lehman Elementary School**

I. Project Goals and Rationale

Students established a rockland hammock, conducted research on native South Florida ecosystems, tracked the growth of trees, kept a journal of hammock observations, removed exotics, took photos of the native trees, and had their projects showcased in the Spring Environmental Fair. Our suburban community is well fed, sheltered, and has access to computers, on-line services, etc. Missing from this suburban landscape is any direct interaction with nature. Our community needs this interaction to improve its quality of life, to provide relief from the stresses of daily activities, to enhance emotional well being, and to preserve its natural heritage for future generations.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	133	Gifted teachers	4
General education students	824	General education teachers	33
Students with disabilities	48	Teachers of students with disabilities	2
Administrators	2	Parents	6
Community members	4	Other participants	2
Total number of participants			1,058

A. Significant Problem or Issue Addressed

Our community lacks direct contact and interaction with nature. The community needs this interaction to improve emotionally and to strengthen character education by becoming environmentally sensitive and resourceful citizens.

B. Curriculum Content Focus

Our school profile of student achievement showed a discrepancy in achievement scores between mathematics and reading/science with mathematics being significantly higher. this project enabled the students to improve reading and science skills through hands-on science and language arts activities.

C. Sunshine State Standards Addressed

Reading

The student constructs meaning from a wide range of texts. (K-2)

LA.A.2.1 determines the main idea or essential message from text and identifies supporting information.

The student constructs meaning from a wide range of texts. (3-5)

LA.A.2.2.1 reads text and determines the main idea or essential message, identifies relevant supporting details and facts, and arranges events in chronological order.

Performance Descriptions:

Responds to a book about butterflies by observing their habitat in the school yard, explaining how the butterflies' behavior compares to the habitats described in the book.

Processes of Life (science)

1. The student describes patterns of structure and function in living things.
SC.F.1.1.5 compares and describes the structural characteristics of plants and animals (K-2).

How Living Things Interact With Their Environment (science)

- SC.G.1.2.2 knows that living things compete in a climatic region with other living things and that structural adaptations make them fit for an environment (3-5).

Performance Descriptions

- SC.G.1.2.2a uses native plants to explain the regional climate and geography.

D. Instructional Methodology Used

1. student centered activities in science: planting the hammock, photographing plants, maintaining the ecosystem, observing and measuring changes, analyzing the components
2. development of reading, research, composition, and communications skills in language arts, reading about native flora and fauna, locating information using different sources, composing poems, establishing an informational web site

E. Nature of the Collaboration

Students, teachers, administrators, an urban forester, and parents established a native rockland hammock at our school site. Students shared their experiences with the community through an Environmental Fair and a web site. Gifted teachers collaborated with the rest of the staff through a training session and a handbook for the purpose of enhancing critical thinking skills and environmental awareness on a school-wide basis. The purpose of the collaboration was to improve the well being of the community by establishing a rapport with nature and giving a sense of permanence by re-linking to our natural heritage. As all of this was happening, the students were also strengthening their science and language arts skills.

F. Project Activities

Students

1. planted a rockland hammock
2. monitored the growth of the trees
3. wrote observations at different intervals
4. watered the plants on a daily basis for the first two weeks after planting
5. decreased the watering during the next few weeks until the hammock was well established and able to thrive
6. measured the trees shortly after being planted
7. photographed favorite hammock trees and bushes
8. wrote haiku and free verse poems inspired by the wildlife
9. created a web site featuring the ever-evolving hammock. The web site includes children's research of hammock plants, drawings, and timelines chronicling activities centered around the hammock.
10. used the hammock settings as an outside classroom for sustained silent reading
11. participated on tours of the hammock
12. studied butterfly metamorphoses in the field (hammock)
13. released aphid-gobbling ladybugs in the hammock

II. Evaluation

A. Assessment of Student Performance

The average score on the pre-test was 2 out of 10 questions. The average score on the post-test was 8 out of 10 questions. Environmental pre/post-tests consisted of 10 questions. Students were also assessed at the hammock fair where students' work inspired by the hammock wildlife was showcased (June 11-16,1999). Work exhibited included poetry, dialogue, observations, drawings, photographs, leaf rubbings, leaf identification, and web page.

B. Project Evaluation

Teachers and administrators who completed the questionnaire about the impact of the hammock experience agreed that the project increased their personal awareness of environmental issues and increased their students' interest in native plants. An urban reforester reviewed the school-wide program.

IV. Budget

The total project budget was \$12,000.00.

V. Contact Person

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Okaloosa County School District

Project Title: Multimedia Collaborative Production for Middle School Gifted

I. Project Goals and Rationale

Innovations in the ways and means of instructing and learning, as it applies to individuals who are gifted, can be dealt with from a number of perspectives. One commonly cited view is that learning can be enhanced by the introduction of new forms of instructional media. For educators, this can dictate a focus on technologies, which accommodates the needs and concerns of the learner. However, new applications of technology must do more than make instruction more glamorous, result in faster transmission rates, provide a clearer electronic signal, or require the instructor to become more of a techno-whiz. Rather, the technologies of instruction must facilitate the learners in taking control of their own learning. The interactive technologies must make it possible for the learner to monitor the process of learning and thereby construct and reconstruct knowledge (Gagne, 1994).

The classroom must become student-centered rather than teacher-centered. Student-centered classrooms must enhance student learning through constructivism and collaboration. These classrooms must also enhance student motivation by situating cognition in real work tasks. In these student-centered classrooms, students learn through active experimentation, constructive doing, and reflective discussion groups (Silverman, 1995). To facilitate these activities, students must be provided with a number of constructivist tools, such as a multimedia authoring environment and communication media (e-mail, white board, and videoconferencing). These tools may speed up and improve the students' acquisition of cognitive and meta-cognitive skills.

This project utilized the above theory-based instructional practices to meet an identified problem. The major problem that has been identified is the lack of usable multimedia products for students with mental handicaps, specifically, products that would give students with mental handicaps practice in real-world tasks. The principal of the special day school for students with mental handicaps requested assistance from the gifted program in the development of CD-ROMs that solve this problem.

As teachers, we are all looking for new teaching methods that will give the students learning experiences they will carry with them throughout their lives. This project was civil in nature and bound together two different student populations, each on the ends of the educational spectrum, and community resources into one great project, which brings mutual understanding among these groups. This project was designed to facilitate the development and implementation of an innovative curriculum. The curriculum emphasized an investigative-centered collaborative model. Silver Sands Schools for students with mental handicaps requested the assistance of the gifted program in developing interactive CD-ROMs. The CD-ROM will enable the students at Silver Sands to practice real life job tasks before they are required to accomplish them in the real world. The model utilized self-evaluation, peer evaluation, teacher evaluation, and collaborative evaluation.

Four primary goals were to be accomplished in this project.

- Students will experience true apprenticeship in the real world of technological careers.
- Students will use telecommunications technologies to organize and create a CD-ROM for use with students with mental handicaps.
- Students will understand the importance of participation in community service activities and realize the value of diversity.
- Interaction with the gifted students directly relates to the special education mission statement and a specific goal which presents inclusion with non-disabled peers on campus and in the community as a

necessity for maximizing the disabled students' potential and essential for the enlightenment of society regarding persons with disabilities.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	38	Gifted teachers	1
General education students	0	General education teachers	0
Students with disabilities	35	Teachers of students with disabilities	1
Administrators	0	Parents	5
Community members	10	Other participants	1
Total number of participants			91

A. Significant Problem or Issue Addressed

This project utilized the above theory-based instructional practices to meet an identified problem. The major problem that has been identified is the lack of usable multimedia products for students with mental handicaps. Specifically, products that would give students with mental handicaps practice in real-world tasks. The principal of the special day school for students with mental handicaps requested assistance from the gifted program in the development of CD-ROMs that solve this problem.

B. Curriculum Content Focus

The course was designed to assist students in acquiring knowledge, skills, and attitudes necessary to make effective use of technology in real world situations. They had practice using a variety of technologies to select, produce, create, and manage instructional materials and systems. They learned to integrate conventional media and computer based technologies in the instructional process. They were able to combine instructional, learning, developmental, managerial, and other technologies as applied to the situation of an educational problem.

C. Sunshine State Standards Addressed

This project was designed to be a cross-curriculum approach. The Sunshine State Standards for language arts, social studies, etc. (approximately 50) are addressed within the project design through curriculum frameworks. Listed below are the standards that were considered most important to the completion of the project.

SS.C.2.3.6 Understand the importance of participation in community service, civic improvement, and political activities

AT.1.1 Applies planning methods to decision-making related to life and work roles

AT.1.1.4.2 Creates a collaborative and comprehensive plan that addresses specific events, products, or projects either personally or for the work place

AT.2.1 Employs management techniques to manage projects and enterprises related to work and life roles

AT.2.1.3.1 Recognizes the need to work in a diverse collaborative group to design, fabricate, distribute, and dispose/recycle products or services

AT.2.1.4.2 Develops the planning, implementation, fiscal, and evaluation systems necessary to manage a product or provide a service

AT.4.0 Technical and Production Skills in the Work Place

AT.4.1 Organizes work assignments by demonstrating production techniques

AT.4.1.3.3 Applies a variety of technical skills to simple projects

AT.4.1.4.3 Analyzes development of higher quality products or services using a continuous quality improvement approach to industry related projects

AT.4.1.4.4 Applies a variety of technical skills to industry specific projects

AT.9.1.4.2 Demonstrates the ability to cooperatively work in various settings, across diverse populations

AT.9.1.4.3 Facilitates the business/education partnership in the development of joint goals

D. Instructional Methodology Used

A constructivist methodology was used. The classroom must become student-centered rather than teacher-centered. Student-centered classrooms must enhance student learning through constructivism and collaboration. These classrooms must also enhance student motivation by situating cognition in real work tasks. In these student-centered classrooms, students learn through active experimentation, constructive doing, and reflective discussion groups (Silverman, 1995). Students must be able to understand and manipulate information in order to tap the potential of intelligent technology. Students must develop skills in acquiring and evaluating information. Computers can be powerful tools in developing information skills. Selecting and evaluating what information to use is difficult for many gifted students. They need to learn early in school that real-life problems do not come in neat packages with one answer solutions. Students' tasks should not have one right answer and problems should not have only one route to a solution. Rather, students should engage in work that has an understandable, and even compelling, purpose. They need practical experience in figuring out what information is needed, where and how to find it among materials, and where to go to get more information if necessary. Constructivism allows the students to experience the above and more.

E. Nature of the Collaboration

One of the collaborative activities was the inclusion visit by gifted students to the special education site to become acquainted with the students with disabilities and observe levels of ability on the computer. The interaction with the gifted students directly related to the special education mission statement and a specific goal which presents inclusion with non-disabled peers on campus and in the community as a necessity for maximizing the disabled student's potential and essential for the enlightenment of society regarding persons with disabilities. This collaboration also meets Blueprint 2000, Standard 5, which states, "Florida gifted students display responsibility, self-esteem, sociability, self-management, integrity, and honesty." The academic achievement of the gifted student is enhanced by the demonstration of a greater awareness and understanding of self and others through participation in programs and projects that emphasize service to others. Another collaborative activity was several visits by gifted students to business partner sites to become familiar with the jobs the students with disabilities would be performing. This collaboration enhanced the academic achievement of the gifted students by allowing them to display outstanding performance as information managers, because they identified and proposed viable solutions to real life problems and analyzed possible consequences and impact of each solution. Students also collaborated with experts in instructional design to help answer questions that developed during the creation of the computer program (CD-ROM). They were able to analyze and synthesize information, concepts, and ideas obtained from multiple sources and communicate the results in a unique way such as designing the CD-ROM. The last two collaborative activities met Blueprint 2000, Standard 1: Use of information, concepts, and ideas.

Business Partners

Subway
421-B Mary Esther Boulevard
Mary Esther, Florida 32569
Mike Nobles, Owner

The University of West Florida
Instructional Technology Department

White Sands Bowling Center
653 Beal Parkway
Ft. Walton Beach, Florida 32549
Butch Hutchinson, Manager

Oklahoma State University at Eglin Air Force
Base
Ms. Ann Hancock, Division of CD-ROM
Development

Little Caesars Pizza
115A NW Racetrack Road
Ft. Walton Beach, Florida 32547
Mr. & Mrs. Robert Eglin, Owners

Preston Hood Chevrolet, Inc.
212 SW Hollywood Boulevard
Ft. Walton Beach, Florida 32548
Taylor Hood, General Manager

Delchamp's
111 NW Racetrack Road
Ft. Walton Beach, Florida 32547
Johnny Crisco, Owner

Parents of Gifted Students

F. Project Activities

The project activities were

1. several preliminary inclusion visits by gifted students to the special education site to become acquainted with the students with disabilities and observe levels of ability on the computer
2. guidance by the special education professionals of gifted students in understanding the kind of computer program which will meet the needs of the students with disabilities in the workplace
3. instruction of the gifted students on how to create a computer program with Hyperstudio which meets the criteria
4. several visits by gifted students to business partner sites to become familiar with the jobs disabled students would be performing
5. evaluating and identifying corrections with programs
6. a face-to-face sharing of the computer programs with the students with disabilities

III. Evaluation

A. Assessment of Student Performance

Students were assessed with an assortment of rubrics, which were jointly developed by the teachers and students. The students did extremely well with all groups achieving a high level of success; 95% of the students received the highest possible scores on all the rubrics. Only 4% of the students attained an average in the second range on the rubrics. One percent of the student body that participated received the lowest average range on the rubrics. The gifted students displayed outstanding performance and achieved the intended outcomes. Gifted students, who display outstanding performance as information managers, will

1. use multiple original and secondary sources to analyze, interpret, and synthesize relevant details and facts in order to examine relationships, infer meanings, define conclusions, and predict outcomes

2. analyze and synthesize information, concepts, and ideas obtained from multiple sources and communicate results in a unique way such as designing a CD-ROM.

These are only a few of the outcomes or objectives that were achieved during this project; others are addressed within the project design through curriculum frameworks.

B. Project Evaluation

Teacher Evaluation of the Curriculum: This was done through teacher conferences with all the teachers involved with the project. The conference identified problem areas and provided an opportunity for ideas on correcting problems found.

Student Evaluation: Students were asked to fill out a survey gauging the appropriateness of the assigned task. Space was provided for students to give personal accounts and reviews of the project and their feelings about dealing with motivation and relevancy toward completing the project.

Gifted students' work was evaluated by using a series of rubrics, which were developed by the students and teachers. The rubrics were averaged to find the means and then percentages were applied to determine overall success of students who participated.

Students with disabilities were given a pre-test and a post-test to determine the success of the CD-ROM. An analysis of variances was performed. There was a significant difference in the pre- and post-tests. Whether that significance is repeatable cannot be determined. It is also difficult to determine if this is just a statistical difference and not a real difference.

IV. Budget

The total budget was \$12,000.00. Consumable materials were purchased for the gifted classes (poster board, markers, notebooks, etc.). Software purchased included program software (Hyperstudio) and video-conferencing software. Hardware that was purchased included 5 computers. Digital cameras were purchased for video-conferencing and for taking pictures at business sites. Transportation for field trips to Silver Sands School and business sites was paid out of the grant.

V. Contact Person

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**Palm Beach County School District
Dreyfoos School of the Arts**

I. Project Goals and Rationale

A multimedia lab enabled students to fulfill the Sunshine State Standards of incorporating multimedia into presentations, to work collaboratively, and to analyze specific elements of mass media.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	160	Gifted teachers	4
General education students	1040	General education teachers	0
Students with disabilities	50	Teachers of students with disabilities	0
Administrators	0	Parents	0
Community members	0	Other participants	0
Total number of participants			1254

A. Significant Problem or Issue Addressed

Students analyzed the power of language as promoted by a specific medium. They compared and contrasted the content, the production elements, and the elements that contribute to the enhancement or manipulation of information.

B. Curriculum Content Focus

We discussed the production elements that contribute to a specific medium and explained how they enhance or manipulate information.

C. Sunshine State Standards Addressed

LA.B.2.2.2 Effectively integrates multimedia and technology into a presentation.

LA.B.2.4.5 Critically analyzes specific elements of mass media with regard to the extent to which they enhance or manipulate information.

LA.B.2.4.1 Writes text that demonstrates comprehension and synthesis of content, processes, and experiences from a variety of media.

D. Instructional Methodology Used

1. lecture
2. demonstration
3. group collaboration
4. student presentations

E. Nature of the Collaboration

Students collaborated with their partner to choose two forms of media to compare and contrast using the same news story or advertisement. Working in groups, students analyzed the specific elements of mass media, explaining how media enhances or manipulates information, and described the cause and effect relationship between media and public opinion trends.

F. Project Activities

Students created a storyboard using Powerpoint or Hyperstudio and presented findings of their investigation to the class.

III. Evaluation

A. Assessment of Student Performance

Students were evaluated using the following criteria:

1. plan or outline of presentation 20 points
2. research utilized 30 points
3. text-including multimedia 100 points
4. self-evaluation 20 points

B. Project Evaluation

The project was evaluated by students and teachers utilizing the following:

In order to evaluate the project and determine if I would do it in the same way, I would ask students for their individual input, along with my own, to see how we could improve upon achieving our goals.

I would issue the following rubric:

1. Did this project interest you academically and creatively as a gifted student?
2. How effective was completing this project using collaboration?
3. Did you find technology beneficial as a resource?
4. Did the use of multimedia make more of an impact on your presentation? How? In what ways?
5. How would you rate the overall effectiveness of using the multimedia lab in achieving your goal of making a multimedia presentation and fulfilling the standard of analyzing various elements of media?
6. What would you change about the planning, organization, or presentation of your multimedia projects?
7. What have you learned from completing this project? What was the overall impact of the project? Did this motivate you to increase your performance and/or achievement?

IV. Budget

The total budget was \$9,300.00.

V. Contact Person

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**Palm Beach County School District
South Olive School**

Project Title: Writing With Technology

I. Project Goals and Rationale

This project was designed to incorporate improvisational techniques to illicit creative ideas for writing and to teach typing skills, knowledge of webbing software, proper conventions of writing and creative writing to a group of 2nd grade gifted students along with targeted students in regular education classes whose writing skills showed progress beyond that of their peers.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	24	Gifted teachers	2
General education students	0	General education teachers	1
Students with disabilities	6	Teachers of students with disabilities	0
Administrators	0	Parents	0
Community members	0	Other participants	0
Total number of participants			33

A. Significant Problem or Issue Addressed

To elicit creative ideas for writing and to teach typing skills, knowledge of webbing software, proper conventions of writing and creative writing to a group of 2nd grade gifted students along with targeted students in regular education classes whose writing skills showed progress beyond that of their peers.

B. Curriculum Content Focus

Language Arts and Writing were the primary focus of instruction. Daily entries in a journal incorporated the Power Writing program to assist the student in becoming proficient in skills needed for success in the Florida Writes! Program. Palm Beach Writes and South Olive Writes were also used to further develop expository and narrative writing.

C. Sunshine State Standards Addressed

Goal 3 #1: The student uses writing processes effectively.

Goal 3 #2: The student writes to communicate ideas and information effectively.

Specifically, Goal 3 Standards:

1. information manager
2. effective communicator
3. numeric problem solver
4. creative and critical thinkers
5. systems managers
6. cooperative workers
7. effective leaders

Strand B: Writing

LA.B.1.1.1 The student makes a plan for writing that includes a central idea and related ideas

LA.B.1.1.2 The student drafts and revises simple sentences and passages, stories, letters, and simple explanations that express ideas clearly; show an awareness of topic and audience; have a beginning, middle, and ending; effectively uses common words; and have supporting detail

LA.B.1.1.3 The student produces final simple documents that have been edited for the appropriate conventions of writing

LA.B.2.1.1 The student writes questions and observations about familiar topics, stories, or new experiences

LA.B.2.1.2 The student uses knowledge and experience to tell about experiences or to write for familiar occasions, audiences, and purposes

LA.B.2.1.3 The student uses basic computer skills for writing, such as basic word processing techniques such as keying words, copying, cutting and pasting, and using and accessing basic educational software for writing

LA.B.2.1.4 The student composes simple acts of instructions for simple tasks using logical sequencing of steps

D. Instructional Methodology Used

Teachers worked as a team, modeling lessons in their strengths, to demonstrate computer programs and skills, improvisational acting techniques, and appropriate planning for writing, editing, and refining a product.

Students worked individually through the tutorial, Touch Typing for Beginners, which is public domain software. The program lacks bells and whistles which some of the more recently developed programs have; however, it is student friendly and is effective in learning typing skills. They worked on this every day for one-half hour. Writing practice in the classroom with instruction in Power Writing took place daily. Writing was integrated across the classroom.

Improvisational, motivational Monkey Games were learned in order to become proficient at verbally conveying ideas and information while interacting with peers. The teacher served as facilitator throughout most of the learning time so that students actually took charge of their own learning with guidance and support offered.

E. Nature of the Collaboration

Being able to assist and model for students not meeting eligibility criteria for the gifted program created an atmosphere of success for all, patience, and sharing. Success and mastery of techniques was evident as the gifted students taught adult college students and actively engaged the adults in activities that were new to them. Through these experiences, the gifted students aptly edited and refined their written work and easily presented their products to all age and ability levels.

F. Project Activities

1. Participants engaged daily in improvisational games in order to learn how to interact, stimulate thinking, improvise, and use a variety of talents (movement, music, speaking, acting). They participated for four hours with college students who came to observe the class and the use of technology in daily work and taught them the basics of improvisational techniques with ease and proficiency.

2. Students accessed the computer daily for 30 minutes to learn touch typing. During regular weekly computer instruction, students learned to become proficient in using Inspiration (webbing tool), Touch Typing for Beginners, and Student Writing Center.
3. Students created circular stories based on *If You Give a Mouse a Cookie*. They had to author an original story, unlike any topic of their peers, write it using the circular diagram with graphics appropriate to the story. Students shared the stories with other grade levels.
4. Students participating in the gifted program produced a research paper on a chosen lighthouse found along the eastern coast of the United States. They had to access the Internet, write to newspapers and other experts, collect illustrations from a variety of sources, and create a bibliography. This project was presented to other grade levels.
5. Students practiced typing on laptop computers in the classroom.

III. Evaluation

A. Assessment of Student Performance

Typing assessment was measured by using the number of words per minute typed in class. An arbitrary measure of 20 wpm was established as the criteria for mastery. Of 30 participants, one student accomplished 52 wpm with 0 errors, one student 45 wpm with 2 errors, 10 students with 32 wpm with 0-5 errors, 10 students with 20-30 wpm with 0-8 errors, and 8 students performing in the 7-20 wpm range.

The Florida Writes! rubric was used to measure successful mastery of written products for information, and the students participated in developing a rubric for creative products.

Teacher observation was used to measure success in improvisation. The growth a student showed in willing participation, frequency of participation, and creative responses were among the criteria for success.

In surveying the teachers of the students in the year 1999-2000, the students who participated in this grant project show more willingness to take risks in speaking, provide typewritten products, and present creative ideas with higher frequency than the students who had not participated.

B. Project Evaluation

The project was evaluated with student products and skills exceeding the expectations of the teachers involved. As mentioned previously, students readily used touch typing, not only in writing, but also whenever a computer program was accessed.

Family involvement was a variable not counted upon, but, because of the lighthouse project, families became involved in planning vacations and assisting students in researching the various lighthouse subjects.

The staff at Inspiration Software was given a sampling of the web design that second graders produced, and they were positive with feedback on the students' success. This software program was piloted by some schools within the district and was considered to be too complicated and difficult to learn. The gifted second grade students in this project proved successful in its use as well as being able to transfer to other programs skills of cutting and pasting, spell check, and adding graphics.

IV. Budget

The total amount granted was \$12,000. The monies were spent on wiring a portable classroom, one laptop computer, one Dell PC with printer, software, and 10 DreamWriter laptops with rollaway case. All monies were encumbered by the June 30th date; however, because district personnel closed the window for requisitions earlier than that date, approximately \$150.00 remained unspent.

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**Palm Beach County School District
Timber Trace Elementary School**

I. Project Goals and Rationale

Information not provided.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	43	Gifted teachers	2
General education students	210	General education teachers	5
Students with disabilities	30	Teachers of students with disabilities	1
Administrators	0	Parents	0
Community members	2	Other participants	110
Total number of participants			411

A. Significant Problem or Issue Addressed

The significant problem or issue addressed was the lack of minority students in the gifted program.

B. Curriculum Content Focus

1. Teachers learned how to incorporate higher level thinking skills and cooperative group projects into their social studies lessons.
2. Students worked cooperatively to use higher level thinking skills to complete projects with a multi-cultural theme.

C. Sunshine State Standards Addressed

	Social Studies	Lang. Arts	Math	Phys. Ed.
K-2	SS.A.1.2.1	LA.C.2.1.1	MA.E.3.1.2	DA.C.1.1.1
	SS.A.3.1.2	LA.B.1.1.1	MA.D.2.2.2	DA.C.1.1.2
3-5	SS.A.2.2.1	LA.C.2.2.1	MA.B.4.2.2	DA.C.1.2.2
	SS.A.6.2.4	LA.A.2.2.8	MA.B.3.2.1	DA.C.2.2.3
	SS.A.6.2.4.1	LA.D.2.2.4	MA.B.3.1.2	

D. Instructional Methodology Used

Blueprint 2000 competencies and processing skills techniques from Palm Beach County's "Empowering Gifted Students" were used.

E. Nature of the Collaboration

1. Teachers (regular, gifted, specific learning disabilities) collaborated in afterschool sessions. Gifted characteristics, learning styles, identification processes, and specific minority students were discussed. Eligible minority students were referred for screening in the gifted program.
2. Teachers shared methods of teaching, ways to improve their styles, and ways of incorporating higher level thinking skills and projects into their programs.

F. Project Activities

1. Teachers attended collaborative sessions after school hours.
2. Teachers taught project oriented themes.
3. Students researched, wrote, and edited scripts that were turned into video taped productions.

III. Evaluation

A. Assessment of Student Performance

1. Students assessed their own work and the work of other classes.
2. Schoolwide-all students were involved with rating the films in the film festival.
3. Teachers used an inventory to assess their use of the methodologies, techniques, and strategies used in the grant collaboration.

B. Project Evaluation

1. Teachers dramatically increased their score on the inventory that contained skills, techniques, and methodologies proposed in the grant.
2. A film festival was held for the entire school and parents to view and evaluate the videos.

IV. Budget

The total program budget was \$10,373.28.

V. Contact Person

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Santa Rosa County School District

Project Title: Math As It Relates To Careers

I. Project Goals and Rationale

The primary goal of the funded project was to expose gifted students to careers not typically associated with their academic ability levels and to explore the math background that would be required in meeting the qualifications for these careers. This was to culminate in having students set more realistic career goals for themselves. A second goal was to have students collaborate with community members by taking field trips to job sites and comparing and contrasting the requirements involved in career choice. Finally, gifted students were challenged to associate the connection between the teaching of particular math concepts and their relation to career choice and functioning in a global society.

Often, elementary gifted students ask the question, "Why do we have to learn this concept? We will never use it in later life." This provided the rationale behind this project.

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	293	Gifted teachers	6
General education students	0	General education teachers	0
Students with disabilities	27	Teachers of students with disabilities	0
Administrators	6	Parents	40
Community members	12	Other participants	0
Total number of participants			390

A. Significant Problem or Issue Addressed

Often, elementary gifted students ask the question, "Why do we have to learn this concept? We will never use it in later life." This provided the rationale behind this project. The primary goal of the funded project was to expose gifted students to careers not typically associated with their academic ability levels and to explore the math background that would be involved in meeting the qualifications for these careers. This was to culminate in having students set more realistic career goals for themselves.

B. Curriculum Content Focus

Content included studying ratios (part to whole and whole to part), role playing and creative writing, research on job offerings in aviation and pharmacy (related career options), simulation activities depicting responsibilities of persons in various career fields, and an internet search to determine colleges that offered degrees in pharmacy. Vocabulary, such as income, pension, promotion, and social security was introduced as it related to employment. Employment trends, unemployment rates, and the concept of supply and demand were introduced.

How size and weight determine the amount of medicine an animal or human are prescribed was discussed. Students solved proportion problems and learned how to dilute a 50% mixture by adding filler to make a 20% mixture.

Principles of flight were included in the aviation unit.

C. Sunshine State Standards Addressed

The following Sunshine State Standards were utilized during the implementation of the grant.

Writing

Standard 1: The student uses the writing process effectively (LA.B.1.2)

Standard 2: The student writes to communicate ideas and information effectively (LA.B.2.2)

Listening, Viewing, and Speaking

Standard 3: The student uses speaking strategies effectively (LA.C.3.2)

Mathematics: Number Sense, Concepts, and Operations

Standard 1: The student understands the different ways numbers are represented and used in the real world. (MA.A.1.2)

Standard 3: The student understands the effects of operations on numbers and the relationships among these operations, selects appropriate operations, and computes for problem solving. (MA.A.3.2)

Measurement

Standard 1: The student measures quantities in the real world and uses the measures to solve problems. (MA.B.1.2)

Standard 2: The student compares, contrasts, and converts within systems of measurement (both standard/nonstandard and metric/customary). (MA.B.2.2)

Standard 3: The student estimates measurements in real world problem situations. (MA.B.3.2)

Standard 4: The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real world situations. (MA.B.4.2)

D. Instructional Methodology Used

The primary instructional methods were research and discovery, classroom presentations by peer groups and outside community members, and teacher/facilitator direct instruction for introducing math concepts.

E. Nature of the Collaboration

The collaborative activities included teachers of the gifted working together to plan activities and curriculum. Our county covers a wide area, and teachers and students are not often afforded this opportunity to share knowledge and resources. Further, students from the various schools were able to share knowledge on field trips, and community members were given an opportunity to share their expertise in the areas of aviation and pharmacy. The academic achievement of the students was enhanced because they were afforded a variety of methods of learning a concept and the opportunity to see first hand their knowledge put to use by visiting the various occupational sites.

F. Project Activities

Teachers of gifted students (three in the north end of the county and three in the south end) collaborated on course content and activities. The chosen units for the year were pharmacy and aviation.

The students were actively involved in math activities such as proportion and ratio, packaging and measurement for the pharmacy unit. Field trips were taken to various kinds of pharmacies and to the

zoo and aquarium to compare the differences in cost and medication between humans and animals. The culminating activity was a pharmaceutical research forum where students became scientists and were required to research a disease, formulate a cure, and present findings at a forum.

Students studying aviation took field trips to The National Museum of Aviation and flight and Space Camp. They were fortunate enough to witness John Glenn's return to space. They studied the principles of rocketry and flight and made their own rockets and launched them.

III. Evaluation

A. Assessment of Student Performance

Teachers reported that a pre/post-assessment found an average of 80-85% improvement rate on the knowledge gained by students after studying the two units.

B. Project Evaluation

As proposed in the writing of the grant, the teachers met cooperatively at the culmination of their individual units and formally discussed the results of the knowledge gained from the introduction of concepts in each unit. They unanimously agreed that the results of the pre/post-assessment showed gains in student knowledge. The units continue to be on-going, and teachers are still in the process of writing curriculum based on suggestions for activities that proved beneficial and those that should be discontinued.

IV. Budget

The total budget received for the project was \$12,000.00. The money was used to purchase units on pharmacy, aviation, probability and statistics, construction, sports math, and tessellations. (We realized once the activities began that our initial plan was somewhat ambitious and only two units could be covered in-depth in the period of one year, but that these provided a springboard for the other units purchased.) Workbooks were purchased for the students.

Funds were also used for field trips taken by the students. Stipends were paid to the teachers for their after-school hours spent in writing curriculum for the units. The original plan was for the teachers to present their units at the FLAG conference in October. This did not materialize, so the remaining dollars are being returned to the Challenge Grant Fund.

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**Sarasota County School District
Pine View School**

I. Project Goals and Rationale

The purpose of the pilot project was to redesign the curriculum delivery model for grades 5, 6, and 7 to better meet the needs of gifted middle school students with respect to “best practices” for this age group, the identified needs in our School Improvement Plan, and a Self-Study conducted in the fall 1997. The redefinition of the curriculum involves pairing two previously independent curricular areas (Grade 5 language arts/science, grade 6 & 7 language arts/social studies).

II. Project Implementation

Participants	Number	Participants	Number
Gifted students	236	Gifted teachers	7
General education students	0	General education teachers	0
Students with disabilities	8	Teachers of students with disabilities	1
Administrators	1	Parents	236
Community members	0	Other participants	0
Total number of participants			480

A. Significant Problem or Issue Addressed

1. increased student performance in reading/writing skills
2. increased student proficiency in technology (District & School Technology Standards)
3. increased student collaborative efforts within the learning environment
4. increased information acquisition, analysis, and application in a global network
5. increased ability to formulate problems, tests divergent solutions, and evaluate results
6. improvement of technology skills
7. use of “mobile computing” technology for field work (especially in science)

B. Curriculum Content Focus

1. Grade 5: language arts & science
2. grade 6-7: language arts & social studies

C. Sunshine State Standards Addressed

5th Grade Science

Energy

Standard 1: recognize energy can be changed in form with varying efficiency

Force/Motion

Standard 1: types of motion may be described/measured/predicted

Standard 2: types of force that acts on object/effect can be described/measured

Processes of Life

Standard 1: describe patterns of structure/function in living things

Standard 2: process/importance of genetic diversity

How Living Things Interact with their Environment

Standard 1: competitive/interdependent/cyclic nature of living things

Standard 2: consequence of using limited natural resources

Nature of Science

- Standard 1: scientific processes/habits of mind to solve problems
- Standard 2: most natural events occur in comprehensible/consistent patterns

5th Grade Language Arts

Writing

- Standard 1: uses writing processes effectively
- Standard 2: writes to communicate ideas/information effectively

Listening/Viewing/Speaking

- Standard 2: uses viewing strategies effectively
- Standard 3: uses speaking strategies effectively

Language

- Standard 2: understands the power of language

6th-7th Grade Social Studies

Time, Continuity and Change (History)

- Standard 1: understands world from beginnings to Renaissance (6th)
- Standard 6: understands history of Florida and people (7th)

People, Places and Environments (Geography)

- Standard 1: understands world in spatial terms (7th)
- Standard 2: understands interactions of people and their physical environment (6-7th)

6th-7th Grade Language Arts

Reading

- Standard 1: uses reading process effectively
- Standard 2: constructs meaning from wide range of texts

Writing

- Standard 1: uses writing processes effectively
- Standard 2: writes to communicate ideas/information effectively

Listening, Viewing and Speaking

- Standard 1: uses listening strategies effectively
- Standard 2: uses viewing strategies effectively
- Standard 3: uses speaking strategies effectively

Language

- Standard 1: understands the nature of language
- Standard 2: understands power of language

Literature

- Standard 1: understands common features of a variety of literary forms
- Standard 2: responds critically to fiction, non-fiction, poetry and drama

D. Instructional Methodologies Used

1. direct instruction
2. cooperative learning activities
3. simulations
4. integration of multi-media technology
5. modeling

E. Nature of the Collaboration

By restructuring the schedule for the 6 teachers in the pilot project, they were able to have the same group of students in a 2-period time block. This allowed the flexibility of either having each period

for only one class slot for each of the subjects or to provide an extended two period block for a combined curricular activity. The two teachers teamed at each of the 3 grade levels spent time during the summer of 1998 in joint curricular planning and had the same lunch/prep periods for continuous planning and adjustments for the 1998-99 school year. Additionally, these teachers were part of grade level teams that regularly looked at interdisciplinary activities and monitored student progress throughout the year. The year-end parent and student evaluations were collaboratively planned.

By creating a focus on a subject (social studies, science), writing processes and skills were applied not only in the language arts class, but also in the science or social studies class as well. Through the collaborative process, the quality of the writing and overall student projects improved since there was a coordinated effort between the two teachers, resulting in fewer routine assignments. Students were aware of the connections between the two curricular areas.

F. Project Activities

1. summer curriculum planning workshops for curriculum redesign (summer 1998)
2. purchase of 12 HP620LX Palmtop computers (Aug. 1998)
3. Parent letters and meetings to explain the project (Aug.-Sept. 1998)
4. Houghton-Mifflin Benchmark Progress Test (5th grade only) (Sept. 1998)
5. Florida Writes and Reading Comprehension tests for Grade 7 (Sept. 1998, Jan. and May. 1999)

III. Evaluation

A. Assessment of Student Performance

Project Products

1. Student (and teacher) developed web pages
 - a. Teachers at all 3 grade levels had web page elements posted on the school site; teachers using the LightSpan pages had pages removed in June 1999 when the District discontinued the LightSpan contract, and replacement web sites are in the planning stages.
 - b. Other web sites are being continued for the 1999-2000 year.
2. Teacher Designed Curriculum
 - a. Teacher designed materials are being posted to www.assignonline.com (student designed "homework hotline" web site the school is piloting at the district level for the 1999-2000 year).
 - b. Teacher designed materials were evaluated and refined during the Summer 1999 curriculum writing process for use in the 1999-2000 school year and are being utilized by a wider group.
 - c. Curriculum materials are part of the Course Expectations on file in the office and distributed to parents for each class at the beginning of each school year.
 - d. The "Explorer" Team (Grade 7) produced a CD-ROM with segments from the year.
3. Presentation Outline/Materials
Each teacher has determined which professional organization presentation proposals will be submitted for the 1999-2000 school year.
4. Individual Grade Level Assessment Options:
 - a. Grade 5: language arts and science
 1. Houghton-Mifflin Reading Comprehension tests: 22 students improved; 16 students remained the same; 4 students declined

2. Houghton-Mifflin Writing tests: 12 students improved; 22 students remained the same; 8 students declined.
 3. End of the year parent/student survey: majority of both found that the student technology skills had improved throughout the year.
- b. Grade 6: language arts and social studies
1. Portfolios were assembled by students and teachers, involving both writing samples and multimedia presentations, for which rubrics were developed and implemented.
 2. Students and parents evaluated the project.
 Student: 24 question survey + 3 question free response section
 Parent: 6 question free response survey
- c. Grade 7: language arts and social studies
1. Florida Writes scores:
 Average scores 3.5 (beginning of year); 4.02 (mid year); 4.17 (end of year)
 Writing Scores: 32 increased; 5 remained the same; 14 decreased
 Reading Comprehension scores: 37 increased; 1 remained the same; 13 decreased
 2. Reading Comprehension (Accelerated Reader):
 Start = 78.7%; Qtr 1=76.6%; Qtr 2=90.1%; Qtr 3=88.9%; Qtr 4=85.5%; EOY=86.7%

B. Project Evaluation

This project was designed to pilot a process of curriculum redesign as well as the impact of schedule modifications to allow a two-period block of time between the paired curriculum areas. Based upon both student progress and teacher-student-parent feedback, this model was incorporated into the school-wide interdisciplinary curriculum redesign in the summer of 1999. Teams at elementary, middle, and high school levels met to coordinate interdisciplinary projects and curriculum implementation in much the same way as this pilot project was implemented.

The overall use of the HP Palmtop computers, while effective as used for mobile computing (outside the classroom environment, or between classroom groups for specific projects), presented several problems. Uploading to a desktop computer was not always an easy process; the batteries on the palmtops needed replacement at several points, and to truly be effective, twice the number of palmtops would be optimal. The most effective way of integrating the palmtops was in conjunction with other classroom desktop computers. Having the palmtops and a desktop computer/printer combination on a mobile cart provided a convenient way of storing/charging the units, but made it a bit difficult to maneuver the equipment across the campus from north to south sides for the 6 different classrooms to share.

The original goal of having the Houghton Mifflin Benchmark testing as pre- and post-testing was not possible. Due to budget restraints with the text adoptions for the 1998-99 school year, only the 5th grade level adopted the Houghton Mifflin tests, so other evaluation options were used to assess student progress (as noted in A above).

IV. Budget

HP 620LX Palmtop computers	12 @\$718	\$8616.00
Ethernet cards for network connections	12 @\$131	\$1572.00
Faculty Stipends for curriculum redesign		\$1200.00
Total		\$11,388.00

V. Contact Persons

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