Javits Research and Dissemination
US Department of Education-2004-2010

Exceptional Children Division
Mary Watson, Director and Principal Investigator
Exceptional Children Division, NCDPI

Margaret Gayle, Project Director, Bright IDEA 11 and Executive Director
The American Association for Gifted Children
At Duke University
©2010
Bright IDEA is....

A Nurturing and Cognitive Development Strategy for all children and a re-training model for all teachers.
Bright IDEA Transcends racial and ethnic Inequality, poverty and background knowledge and ..... Engages the family in the child’s education.
## Historical Perspective

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>Article 9 B - new definition for identifying AIG students</td>
</tr>
<tr>
<td>2001</td>
<td>The Darity Report submitted to State Board of Education</td>
</tr>
<tr>
<td>2001</td>
<td>State Committee formed to develop nurturing program</td>
</tr>
<tr>
<td>2001</td>
<td>RFP Selection of 5 sites for pilot</td>
</tr>
<tr>
<td></td>
<td>Funding from AAGC &amp; EC &amp; Closing the Gap Divisions, NCDPI</td>
</tr>
<tr>
<td>2001-2004</td>
<td>K-2 Project Bright IDEA 1</td>
</tr>
<tr>
<td></td>
<td>Gaston, New Hanover, Stanly, Thomasville and Wake - 1 school each</td>
</tr>
<tr>
<td></td>
<td>Closed the Achievement Gap based on NC Literacy/Math/Writing Assessments</td>
</tr>
<tr>
<td></td>
<td>Some IOWA Data</td>
</tr>
<tr>
<td></td>
<td>Rubrics on Gifted Intelligent Behaviors</td>
</tr>
</tbody>
</table>
Project Bright IDEA 2 - 2004-2010

- Javits Education Program (Funded by US DOE)
- NCDPI - Fiscal Agent
- AAGC - In-kind Support
- $2.5 Million - 5 years
- 22 Title 1 schools
- 11 Research Districts
  - RFP Process
- 1 Demonstration Site (Thomasville Primary)
- Final Report to DOE - September 15, 2010

- 3 Year Commitment per cohort - K-2 for the Research Design
- Year 1 - 15 days of Professional Development for teachers, principals and specialists
- 5-day Summer Writing Institute (Concept-Based Curriculum Units) Over 200
- Year 2 & 3 - Follow-up coaching and mentoring, implementation and revising curriculum
Bright IDEA 2 Sites

**Cohort 1**
2004-2007
Guilford
Hickory City
Lenoir
Moore
Roanoke Rapids
Wake

**Cohort 2**
2005-2008
Brunswick
Duplin
Rowan
Wake

**Cohort 3**
2006-2009
Brunswick
Elizabeth City
Guilford
Lenoir
Robeson
Bright IDEA is a Model for Thinking Skills

- Students and Teachers Speak in Complete Sentences, respectively
- Practice Thinking and Reflection on Learning during every lesson
- Immersed in Analysis Skills and Advanced Vocabulary that are critical for success on tests
Bright IDEA PD

• Empowers Teachers and Principals to **Innovate** and **Create** interdisciplinary units of Study

• Connects them to professionals that engage in **scholarly dialogue** around a common set of research-based practices and solutions for their students

• Expands their potential beyond a school and district or specific program
From Dr. William “Sandy” Darity, Duke University on Identification for Honors and Gifted Programs:

“Universalize the equivalent of the Gifted Program for all students.”

Gifted Placement:

“One out five, if a White kid; One out of twenty, if a Black or Hispanic kid”

*State of Things - WUNC Radio - June 2006*
Leonardo & Michelangelo Debate
First and Second Graders - Unit on Exploration
Leonardo Debate
Concept Based Interdisciplinary Curriculum Unit on the Renaissance

- Debating the Question: Who was the greatest creator of his time? Leonardo or Michelangelo
- Students judged debate using a rubric based on criteria
Community Unit on Change, Patterns & Relationships
Bright IDEA is......

• A differentiated instructional model;
• A toolbox of current research-based practices for teachers, principals and students;
• Rigorous professional training that aligns with the new teacher evaluation instrument
• A multi-faceted, interdisciplinary and integrated set of curricular components;
• A natural or organic approach to teaching and learning and
• Nurtures and engages each student around interest, learning styles, intelligent behaviors and multiple intelligences!
Bright IDEA is a model that......

• fosters change in teacher dispositions for nurturing academic potential and developing talent in all students;
• encourages the development of rich, engaging and challenging concept-based curriculum for ALL students;
• meets the special needs of the exceptional children and low performing students;
• encourages innovation by teachers, principals and curriculum specialists; and
• forms partnerships between principals, teachers, parents, students and the community.
Bright IDEA is not.....

• an add-on “curriculum” or a prescriptive program
• something you “do today or for a period in the day”
• just for at-risk students
• a cookie cutter model
Research Questions

- What are the dispositions of teachers toward children from diverse groups?
- Can Bright IDEA impact the # of children identified for AIG programs?
- What impact will Bright IDEA have on the meta-cognitive levels of all children?
- Can the impact be linked to changing the dispositions of teachers?
Project Bright IDEA 2 - Research Goals

• **Overarching goal:**
  Create a model nurturing program for transforming K-2 instruction and curriculum for all 21st century students

• **Specific goals:**
  – Increase the number of gifted students from underserved populations via change in teacher dispositions
  – Increase the number of underserved third graders in G/T programs
  – Advance these students’ meta/cognitive skills
  – Level the academic playing field for all students
  – Change teachers’ dispositions to impact goals
Professional Development (PD) for **ALL**

- **Tailors** best gifted and regular education methodologies for teachers/principals/specialists to use with all students.
- **Changes** the dispositions of teachers to believe that all students can “be smart” when immersed in rich and engaging curriculum and motivates them to find the talents, learning styles, interest and gifted behaviors in each student.
- **Builds** on the most advanced research and practices.
- **Focuses** on empowering regular classroom teachers, principals and curriculum specialists, though training and mentoring, to become curriculum innovators and architects for the future.
- **Trains** teachers to design interdisciplinary, concept-based curricular units based on state standards, taxonomies, universal concepts and big ideas.
Professional Development (PD)

• Teachers, Principals and Specialists are taught to:
  – “deconstruct” the standards for the “Big Ideas” and universal concepts
  – “unpack” the level of cognitive and meta-cognitive thinking in the standards in order to create defensible differentiated curricula for all students
  – design concept-based units of studies aligned to formative and summative assessments and six facets of understanding (over 200 units completed)
  – align curriculum, instruction and assessment using the Revised Bloom’s Taxonomy
  – understand the impact of Marzano’s Taxonomy on interest development and student learning
Impact on Students

- **Infuses** *Building Thinking Skills, Gifted Intelligent Behaviors and Multiple Intelligences into all of the curriculum*
- **Redesigns** classroom environments to meet the learning styles, abilities and interests of all children
- **delivers** instruction through tiered levels of difficulty (curriculum is designed for the top 3-5% class) with entry levels for all students
- **ensures** success for students through flexible grouping and multiple intelligence centers around learning targets, performance tasks, skill development, and formative assessment of procedural knowledge
### Head Count - All Cohorts

**Graduates of Bright IDEA - 2007-2009**

<table>
<thead>
<tr>
<th>Cohort</th>
<th>BI</th>
<th>Non-BI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort-1</td>
<td>24%</td>
<td>10%</td>
</tr>
<tr>
<td>Cohort-2</td>
<td>46%</td>
<td>10%</td>
</tr>
<tr>
<td>Cohort-3</td>
<td>15%</td>
<td>10%</td>
</tr>
</tbody>
</table>

AIG IDENTIFIED *

*Based on third graders in all participating schools, CoGAT or IOWA Test of Basic Skills and other criteria.
Head Count Trends

AIG Identified/Placed (Id/Pl)

- More BI Graduates were proportionally identified/placed
- BI caused an increase in (Id/Pl) from control classes, where virtually none were before
- Variance among counties was high and seemed to reflect leadership changes
- No disproportional differences of ethnicity or gender were found in either group
Math Problem Based Q

Evaluation of Responses to Questions Include:

• 0: No answer or “I don’t know”
• 1: Incorrect answer; some calculation
• 2: Correct answer; no reasoning
• 3: Correct answer; simple reasoning
• 4: Correct answer; deep reasoning

Note: Girls outperformed boys on explaining their answers.
Math PBQ Trends
Questionnaire Given to Talent Pool Students

• Math PD Training became a difficult topic for most of the teachers in content knowledge and best practices
• After more math-focused efforts, a modest impact was seen
• Clearly, many teachers expressed in written and verbal statements their lack of knowledge of math and their dislike of math
Improved Dispositions after PD

- Cohort-3: 27 out of 50 survey items improved
  - 17 items reached statistical significance
- Cohort-2: 22 out of 50 survey items improved
  - 12 items reached statistical significance
- Cohort-1: 17 out of 50 survey items improved
  - 7 items reached statistical significance
Disposition Changes

- Q. 3 – Decreased thinking of the school’s wealth as a reason for student outcomes.
- Q. 16 – Tendency to be flexible and experiment with the unknown.
- Q. 23 – Effort to involve parents in what she/he does with students in class.
- Q. 27c – Love for teaching science.
- Q. 28 – Awareness that professionalism requires more than a 4-year college degree.
- Q.32a and 32b – Increased sense of intimacy with Language Arts (All cohorts) and Mathematics (No change for Cohorts-1 and 2 but an increase for Cohort-3 due to more training on math theory and practice.)
Significant Change

• Q. 33 – Responsibility for actively nurturing Gifted (Cohort-3 more than Cohorts-1 and 2)
• Q. 34 – Awareness of link between goal accomplishment and student interests.
• Q. 35b – Establishment of high expectations of ALL students. (Cohort-3 highest)
• Q. 42 – View of giftedness as a function of nature, not nurture.
• Q. 43 – Increased understanding of the role of meta-cognition in student learning.
Recommendations for Implementation

• Implement Building Thinking Skills for ALL Students in K-5 grades (Aligns with the Cognitive Abilities Test, CoGAT)

• Infuse the five analysis and other critical thinking skills into all areas of the curriculum

• Integrate Habits of Mind/Gifted Intelligent Behaviors in all content areas

• Re-train all teachers on all components of Bright IDEA from preschool through 5th grade as funding permits!

• Train middle and high school teachers in Gifted Instructional Strategies and Intelligent Behaviors
CEIS Goal:
To intervene early with students who need additional academic and behavioral assistance in a general education environment.... by developing their skills, knowledge and dispositions through Bright IDEA.

Recommendation: Train regular and exceptional teachers in components of Bright IDEA to meet their needs and the needs of the district.
Exceptional Children Goals:
1. Prepares many students to exit EC classes and perform at successful academic levels.
2. Supports the Reading and Math Foundations’ courses and moves students to a deeper level of understanding.
Project Bright Tomorrow: The Journey Continues....

Thanks to the Jacob Javits Gifted Program funded by the US Department of Education & NCDPI & AAGC.
Project Bright Tomorrow

- Brunswick County
- Guilford County
- Elizabeth City
- Lenoir County
- Whiteville City
- Wake County
Essential Questions for Educators

- How do we educate the child born in 2000 to live, work and compete in the “flat world” described by Thomas Friedman?
- How will this generation of children grow up with the necessary knowledge and wisdom as defined by the new 21st century taxonomies, to address issues, problems and challenges when solutions are complex and not easily definable and accessible?
- Most importantly, how will children have meta-cognitive prowess to explore deeper questions to ponder and seek solutions to problems not yet known?
Contacts

- Principal Investigator, Bright IDEA: Mary Watson, Director
  Exceptional Children Division, NCDPI, Principal Investigator
- E-mail: mwatson@dpi.state.nc.us/ec/

- Project Bright IDEA: Margaret Gayle, Project Director and Co-Designer
  - Executive Director, AAGC  E-mail: meg43@duke.edu
  - Web Site: www.aagc.org

- Co-Designer: Mary “Valorie” Hargett, Retired, NCDPI, and Educational Consultant  E-mail: vhargett@carolina.rr.com

- Evaluator: Ron Tzur, Ph.D., Professor, Research and Mathematics Departments, University of Denver  E-mail: RonTzur@ucdenver.edu

- Research Assistant: Rachael Kenney, Ph.D., Professor, Mathematics Department, Purdue University  E-Mail: rhkenney@purdue.edu
Bright IDEA Web Links

- [www.dpi.state.nc.us/ec](http://www.dpi.state.nc.us/ec)  Project Bright IDEA (Exceptional Children Division), NCDPI
- [www.aagc.org](http://www.aagc.org) (The American Association for Gifted Children) - Duke University; Duke Office Hours & Links: [http://is.gd/Duke_IDEA](http://is.gd/Duke_IDEA)
- [http://is.gd/a2vu3](http://is.gd/a2vu3)  NC Now, UNCTV on March 1, 2010
- [http://flash.unctv.org/ncnow/ncn_mwatson_wdarity_030110.html](http://flash.unctv.org/ncnow/ncn_mwatson_wdarity_030110.html)

Mary Watson, Director, Exceptional Children Division, North Carolina Department of Public Instruction and Principal Investigator, Project Bright IDEA and Dr. William A. Darity, Arts & Sciences Professor of Public Policy Studies, Professor of African and African-American Studies and Economics at Duke University and Board Member of The American Association for Gifted Children discuss, Project Bright IDEA, and the rationale for the research on.

- [http://is.gd/Leonardo](http://is.gd/Leonardo), The Dreamer, A debate by 1st and 2nd graders on Leonardo and Michelangelo and the greatest creator of their time.