

Project Bright IDEA 1: Interest Development Early Abilities
A Model K-2 Nurturing Program - 2001-2004

Final Report

May 27, 2005

North Carolina Department of Public Instruction, Raleigh, NC
Exceptional Children Division
Raising Achievement and Closing Gaps
The American Association for Gifted Children at Duke University

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Overview

Project Bright IDEA was developed by the North Carolina Department of Public Instruction as a pilot program to nurture and develop the interests and unusual abilities of young children in underrepresented groups. These populations include those children, regardless of race or ethnic group, who have limited English language experiences, cultural backgrounds, economic disadvantages, and/or educational disadvantages, disabilities, or differences which make it difficult for them to demonstrate their potential on traditional identification measures of talented and gifted.

The North Carolina Department of Public Instruction appointed a statewide, collaborative committee in 2000 to design a model K-2 program that would lead to nurturing and promoting underrepresented populations eligible for gifted programs. This committee launched *Bright IDEA 1* as a collaborative pilot model with *The American Association for Gifted Children at Duke University*.

The target group was selected through a request for proposal process (RFP). A total of twenty-one school districts applied through the process and six school districts were selected, representing the six Exceptional Children regions in North Carolina. Each district had one elementary school with two classes of kindergarten, two classes of first, and two classes of second graders for a total of 36 classes of Bright IDEA children. Children were not screened for the project; they came from regular classes that were randomly assigned. Five of the school districts that remained in the project for three years included: Gaston County; Henderson County; New Hanover County; Stanly County; Thomasville City; and Wake County. One school district dropped out at the end of the second year.

Criteria for Selection

Criteria for selecting teachers, schools, and school districts was established based on: 1) school districts competing for six regional sites; 2) superintendent, principal, teachers, and coordinators for gifted signing off on a three-year commitment for the project and training, including summer institutes; 3) schools having large numbers of underrepresented populations; 4) two regular classes in each school

participating, beginning with kindergarten and continuing through second grade; 5) providing assessment and other data on the students; and 6) a willingness to involve parents in training on nurturing potential for higher levels of thinking.

Districts baseline data included demographics on students' ethnicity; number of students on free and reduced lunches, pre and post student assessment data and the number of students in the school district identified as gifted.

The training of teachers started in the fall of 2001 on how to teach thinking skills. All kindergarten classes were taught Beginning Building Thinking Skills (BBTS) in the spring of 2002. First grade classes were brought on in the fall of 2002 and second grade classes in the fall of 2003. This provided for three years of Project Bright IDEA for children who started in kindergarten in 2001. Children were kept for all three years in the classes of teachers who were trained in Project Bright IDEA's concept-based instructional delivery model. The staff development component for the three years was comprehensive and included training in these major components: 1) thinking skills; 2) concept-based instruction; 3) learning styles; 4) multiple intelligences; 5) intelligent behaviors; 6) multi-cultural literature; 7) mathematics; and 8) lesson plan design.

Mission and Goals

The mission of Project Bright IDEA 1 was to increase the potential for a number of children from underrepresented populations to be placed into gifted and higher level programs. The goals of the program were twofold: 1) to increase student achievement in literacy and mathematics among underrepresented populations by re-designing the curriculum and learning environment; and 2) to train teachers in developing concept-based curriculum that would foster a deep understanding of the latest research in instructional practices.

Findings from *Project Bright IDEA 1*

The findings of the Project Bright IDEA 1 demonstrates three key aspects of the success of the program: 1) the on-going commitment of the state education agency, local school districts, and the American Association for Gifted Children to promote success in AIG program for underrepresented populations; 2) how teacher training in concept-based instruction can promote student achievement and teacher expectation 3) how building on *Bright IDEA 1* helped the proposed project—*Bright IDEA 2*—to clearly

meet the requirements and receive a grant under Priority 1 of the Jacob Javits Education Program. The model was adopted as a Closing the Gap Initiative by the NCDPI in 2003.

Student Achievement Data (See Appendix I and II, K-2 Assessments.)

Student pre and post assessments were administered to all the Bright IDEA K-2 classes in the 2003-2004 school year by the classroom teachers from *the North Carolina K-2 Assessments for Literacy and Math*. These assessments are not state mandated and most local education districts (LEA's) do not use them in a systematic way. Some LEA's use portions of these assessments or have developed their own. These are not nationally normed assessments. These assessments were not used to compare Bright IDEA students with other students, but rather to have a pre and post evaluation that would indicate gains and growth for students. Teachers in Project Bright IDEA selected all of the items that would be used across the Bright IDEA project in literacy, reading, writing, and math. Kindergarten classes were assessed on literacy and all grades were evaluated on reading. Reading scores are based on running records that include books that students read and re-tell. Expected levels at the end of the year are outlined below for each grade level. Writing assessments were based on prompts for each grade level and evaluated by a rubric.

Key results for Bright IDEA 1 were:

- All kindergarten Bright IDEA classrooms scored in the 99th percentile on the state literacy assessment.
- Significant gains were seen in student achievement of the K-2 Literacy and Math Assessments across all of the sub-groups of children.
- Achievement among African-American and Hispanic populations was raised close to the level of white and Asian students.
- One school showed Bright Idea second graders scoring in the 80th percentile on the Iowa Test of Basic Skills Reading exam vs. 39th percentile for those who did not go through the Bright Idea program. Class size averaged 21.5 in Bright IDEA classrooms and 18.8 in the non-Bright IDEA classrooms. This was the only school that administered the Iowa Test.
- One principal provided data that showed nearly all Bright IDEA students in K-2 classrooms scoring 50-100% higher than students in regular classrooms for every assessment or inventory given, including the Iowa Test of Basic Skills.

In demonstrating the success of the first goal of the Project, it is clear that all students showed significant gains across all sub groups of the populations, indicating

that the gap among sub groups was closed for these students on these assessments. Our second goal was to identify and place more underrepresented populations into gifted programs. Headcount data on Bright IDEA I third graders that will be identified for gifted programs will not be available until Summer 2005. This data will be released to the public when available.

In demonstrating the success of the teacher training in understanding concept-based instruction, teachers developed products that included: 1) concept-based lesson plans; 2) rubrics for observing intelligent behaviors; and 3) transforming their classrooms into dynamic learning environments that provided students with centers on learning styles and multiple intelligences. Teachers have provided many anecdotal presentations that support the success of student achievement and teacher satisfaction.

Talent Assessment Profile (TAP, adapted from the work of Mary Frasier, Ph.D.)

Each student in Project Bright IDEA for 2004 has a Talent Assessment Profile showing gains between pre and post-assessments in reading, math, and writing. Intelligent Behaviors were integrated into multi-cultural literature units. Each class was taught a unit in a pre-test and post-test setting. Each student has a profile on at least two intelligent behaviors based on teacher observations and activities from the literature units. The pre and post assessment on the intelligent behaviors were based on a five scale rubric: 1) Readiness; 2) Emergent; 3) Progressing; 4) Early Independent; and 5) Independent. (See Appendix III, Intelligent Behaviors.)

Impact of the Model

The project has had an impact on the children, teachers and administrators who have been involved over the three years. Principals have reported gains on all assessments for all children and the potential of children being placed in gifted programs in the third grade. Teachers and administrators have reported that they have learned new ways of thinking about teaching rigorous curriculum to young children. They are excited about the success of their hard work in studying the research and practicing it in their classrooms. Administrators want to expand the program as funding becomes available.

What was the impact on children?

The integration of a thinking skills program into the *North Carolina Standard Course of Study* fostered students' abilities in developing five cognitive skills critical for success in achievement and testing: 1) describing; 2) finding similarities and differences; 3) sequencing; 4) classifying; and 5) forming analogies. This program has been excellent for developing vocabulary. Outcomes for the children included: 1) improved vocabulary development; 2) clarified thinking processes integral to content learning; 3) improved observation and description skills; 4) improved interaction with peers; 5) demonstrated growth on literacy, mathematics and writing assessments; and 7) improved conceptualization of mathematics, social studies, and science.

What was the impact on teachers?

Outcomes for teachers included the following: 1) integrated the *North Carolina Course of Study* with concept-based instruction and a thinking skills program; 2) incorporated Marzano's, *New Taxonomy of Educational Objectives* and the *Revised Bloom's Taxonomy* into the course of study; 3) developed multi-cultural literature units that were concept-based with the integration of intelligent behaviors and habits of mind; 4) changed the classroom environment to include the teaching of thinking skills and providing for all learning styles; 5) developed new rubrics and tools for observing intelligent behaviors and talents; 6) applied new mental models and strategies for children to connect knowledge; 7) involved parents in understanding the model and how they could help their children at home and 8) developed a deep understanding of how children learn and designed and implemented concept-based curriculum to teach integrated knowledge.

Summary and Project Bright IDEA 2

Based on the data collected and the reports from teachers and administrators the State believes that Project Bright IDEA 1 exceeded all expectations. This project had limited funding, but provided the pilot program for writing a Jacob Javits research proposal to the US Department of Education. The research grant was funded in 2004 to "upscale the project" across eighteen school districts in thirty-six schools over a three-year period and to study the impact of the project on teachers and students.

The first cohort of schools and participants was selected in November 2004. The first six school districts selected included: Guilford, Hickory, Lenoir, Moore, Roanoke Rapids, and Wake County. One hundred thirty-five participants (teachers, principals, central office) are involved in training from the six districts. The second cohort of school districts has been identified to begin training in the Fall 2005. Districts selected for the second cohort include: Beaufort, Brunswick, Duplin, Franklin, Richmond, and Wake.

The model program has been identified at Thomasville Primary School in Thomasville, North Carolina. The teachers and principal are designated as mentors to Project Bright IDEA 2 participants. This school is a model of leadership and exemplary teaching for the research design that is underway with Project Bright IDEA 2.

Funding

Funding was provided by the Exceptional Children Division and Raising the Achievement Gap Division of the North Carolina Department of Public Instruction and by The American Association for Gifted Children at Duke University with a grant from the Geraldine R. Dodge Foundation and private funds. Local school districts involved in the project provided funds for student materials, substitutes, and subsistence and travel funds for participants for training.

Many in-kind contributions were provided by all the participants and organizations including Wilburn Elementary School in Wake County Schools and Thomasville Primary School in Thomasville City Schools for providing space and breaks for Summer Institutes.

The staff of NCDPI and local schools and the Board of Directors of AAGC provided leadership and in-kind support to review the selection process and the implementation plan for Project Bright IDEA 1 and Project Bright IDEA 2.

Note: Headcount data on Bright IDEA I third graders that will be identified for gifted programs will not be available until Summer 2005.

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|--------------|---|
| APPENDIX I | Criteria for K-2 Assessments FY 2003-2004 |
| APPENDIX II | Charts - K-2 Assessments for Literacy, Reading, Writing, and Math |
| APPENDIX III | Charts – Intelligent Behaviors |

APPENDIX I

Criteria for K-2 Assessments – FY 2003-2004

| Assessments | Total Points |
|--|--------------|
| K Literacy: | |
| Letter Recognition | 52 |
| Letter Sounds | 26 |
| Book & Print Awareness | 20 |
| Sight Words | <u>50</u> |
| Total | 148 |
| | |
| K Writing | 0-3 |
| K - Reading - Running Records - End of K expected levels | 3/4 |
| K Math | 24 |
| <hr/> | |
| 1 st Writing | 0-4 |
| 1 st Reading - Running Records - End of 1 st expected levels | 15/16 |
| 1 st Math | 28 |
| <hr/> | |
| 2 nd Writing | 0-4 |
| 2 nd Running Records - End of 2 nd expected levels | 23/24 |
| 2 nd Math | 52 |

FTAP's: Frasier Talent Assessment Profile

Each student in Project Bright IDEA for 2004 has an FTAP profile showing gains between pre and post-assessments. Intelligent Behaviors are integrated into multi-cultural literature units. Each class is taught a unit in a pre-test and post-test setting. Each student has a profile on at least two Intelligent Behaviors based on teacher observations and activities from the literature units.

APPENDIX II

Charts - K-2 Assessments

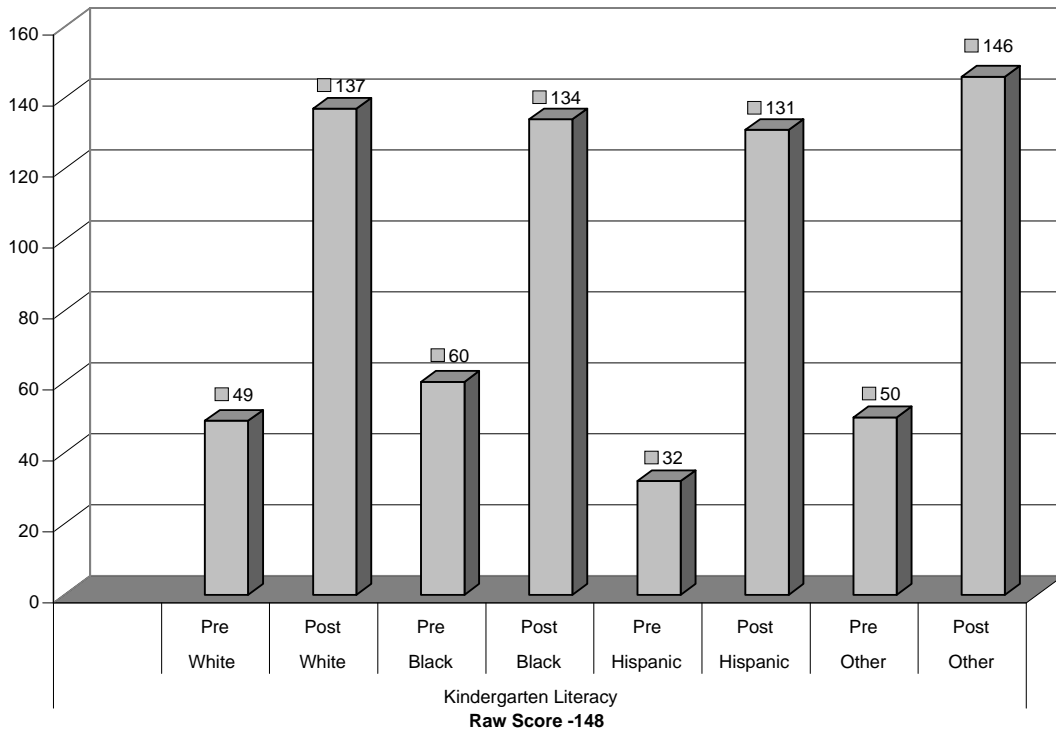
Kindergarten Literacy

K-2 Reading

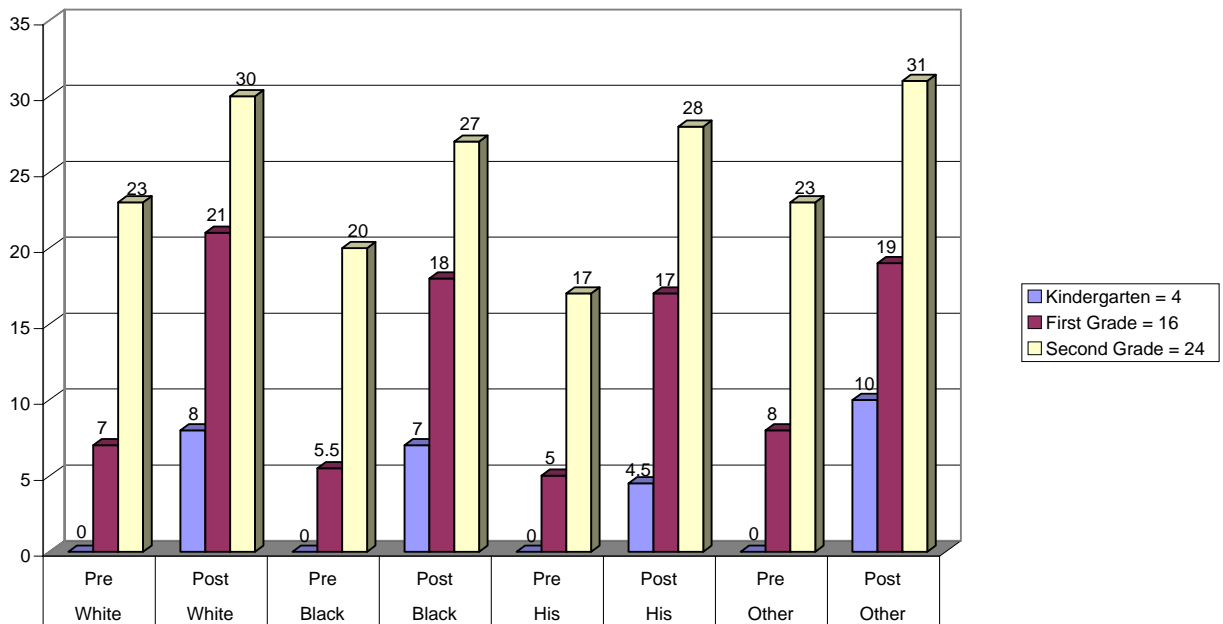
K-2 Writing

K-2 Math

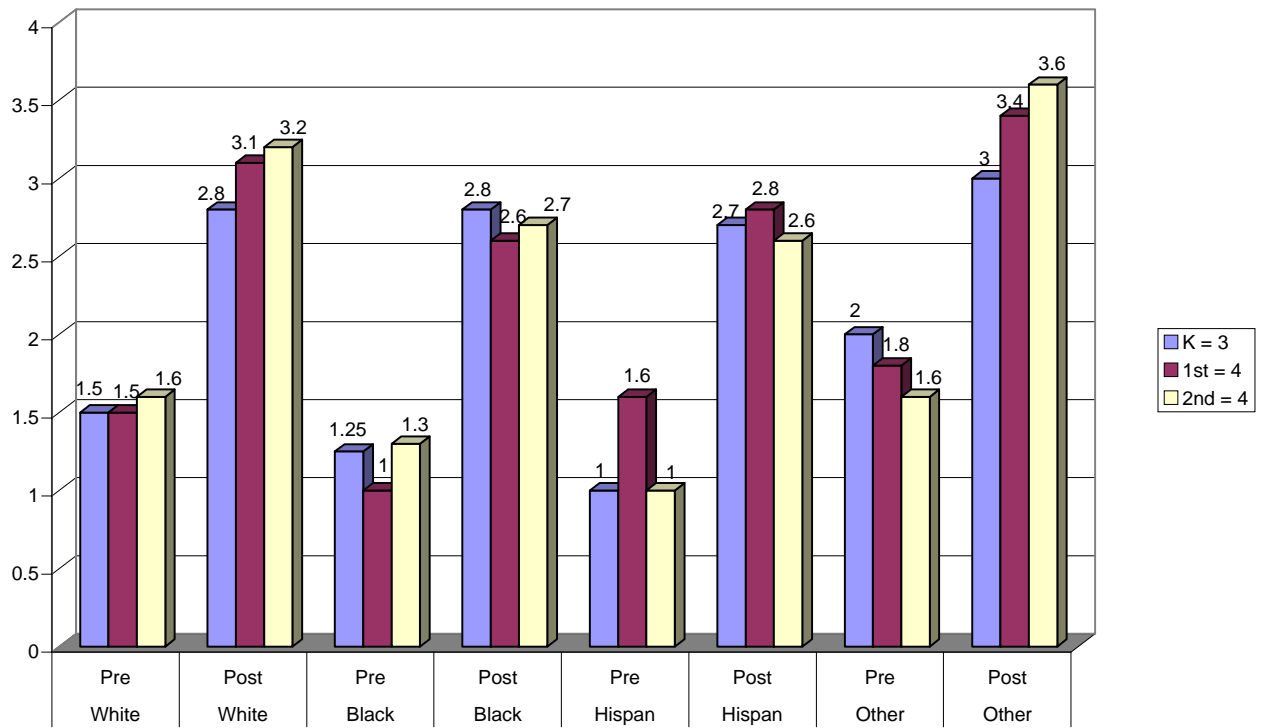
Project Bright IDEA 1: Kindergarten Literacy



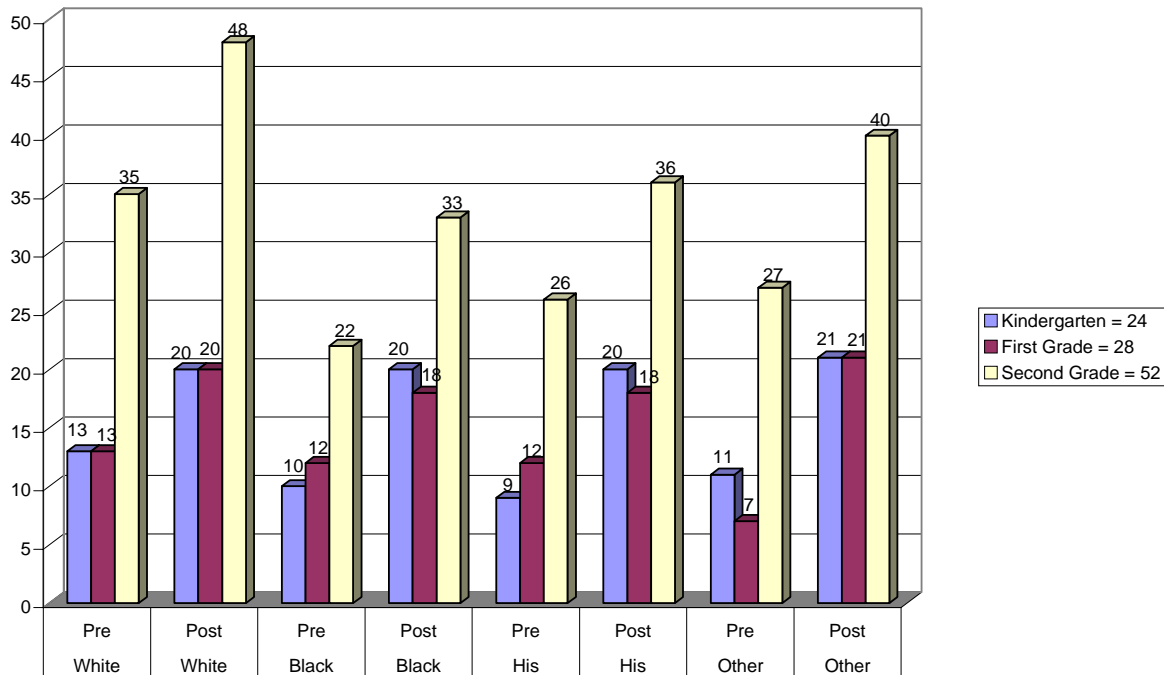
Bright IDEA 1
K-2 Reading [Running Records]
Legend Represents Expected Levels by End of Year



Bright IDEA 1
K-2 Writing
Legend Represents Levels



**Bright IDEA 1- K-2
Math**



APPENDIX III

**Charts - Intelligent Behaviors:
Multicultural Literature [Pre and Post]**

Kindergarten:

Page 13 Figure 1 Persistence

Page 14 Figure 2 Creating, Imagining, & Innovating

Books used in assessing Intelligent Behaviors in kindergarten:

Pre - *Jingle Dancer* by Cynthia Leitich Smith

Post – *Silver Shoes* by Caroline Binch

First Grade:

Page 15 Figure 3 Persistence

Page 16 Figure 4 Creating, Imagining, & Innovating

Page 17 Figure 5 Taking Risks

Page 18 Figure 6 Thinking Flexibly

Books used in assessing Intelligent Behaviors in first grade:

Pre – *Joseph Had a Little Overcoat* by Simms Taback

Post – *Down the Road* by Alice Schertle

Second Grade:

Page 19 Figure 7 Questioning & Posing Problems

Page 20 Figure 8 Creating, Imagining, & Innovating

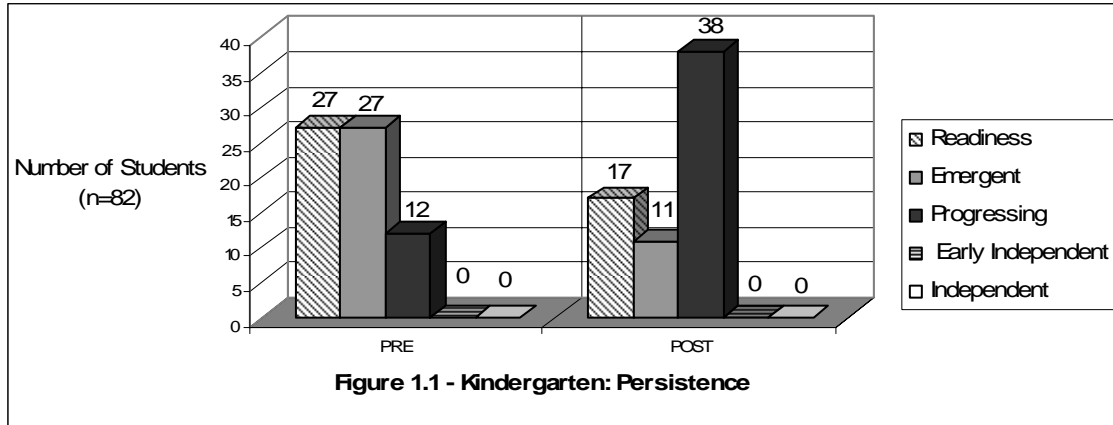
Page 21 Figure 9 Remain Open to Continuous Learning

Books used in assessing Intelligent Behaviors in second grade:

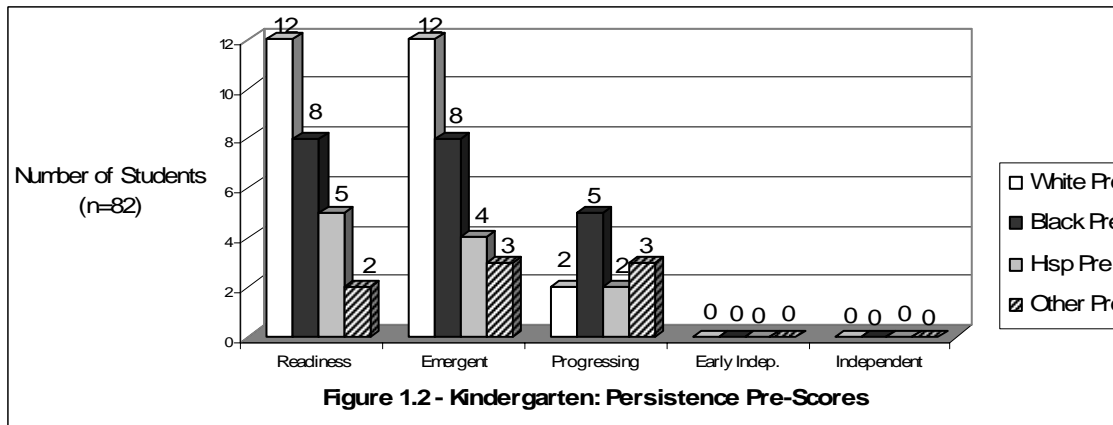
Pre – *Yonder Mountain* by Kay Thorpe Bannon

Post - *The Caged Birds of Phnom Penh* by Frederick Lipp

Figure 1. Kindergarten: Persistence

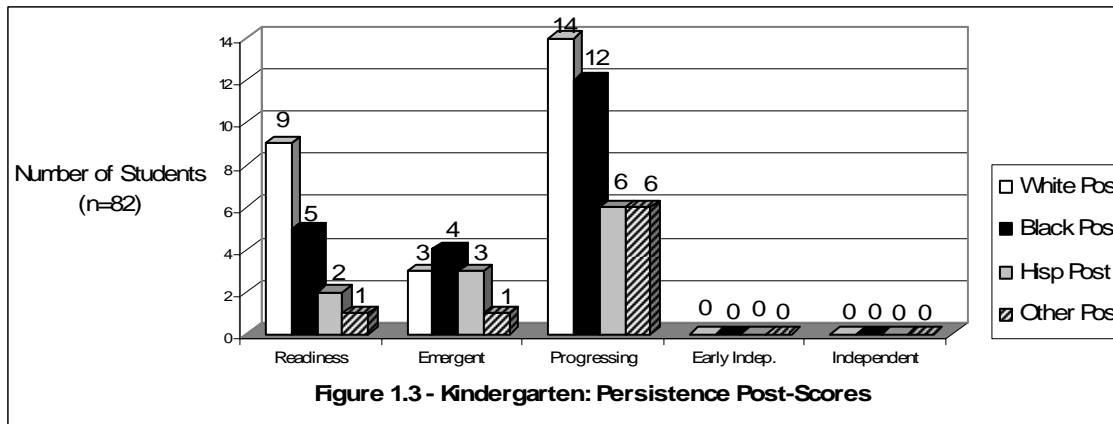


Concept-based Lesson Plans on Multicultural Literature Books were used to teach Intelligent Behaviors: *Jingle Dancer* by Cynthis Leitch Smith for Pre-Assessment and *Silver Shoes* by Caroline Binchfor Post Assessment.



Intelligent Behavior: Persisting - Degrees of Development:

- Stays on task a reasonable length of time.
- Looks for multiple ways to stay on task.
- Analyzes and evaluates task by seeking new knowledge while verifying result.
- Demonstrates diligence and determination in achieving acceptable product, despite obstacles.



Readiness: IB explored and sporadically demonstrated

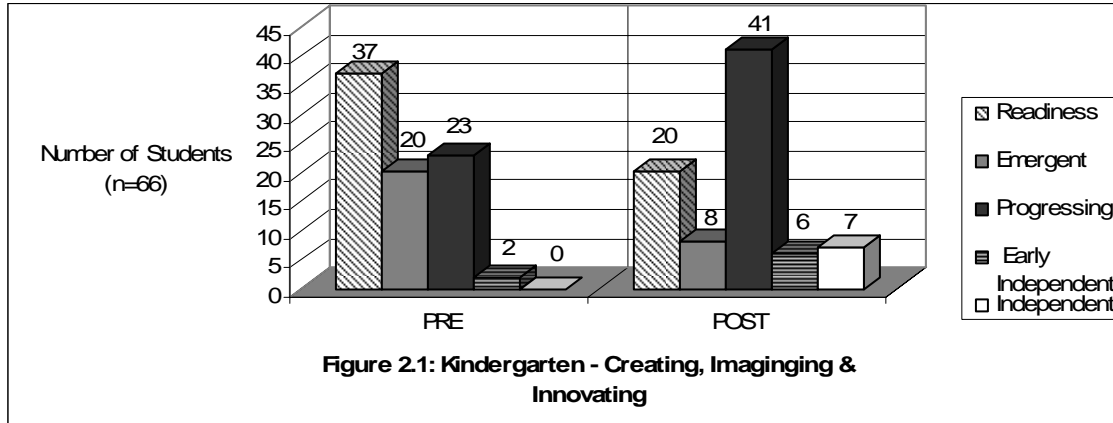
Emergent: IB occasionally demonstrated by applying integrated knowledge

Progressing: IB frequently demonstrated by extending and refining learning through analysis

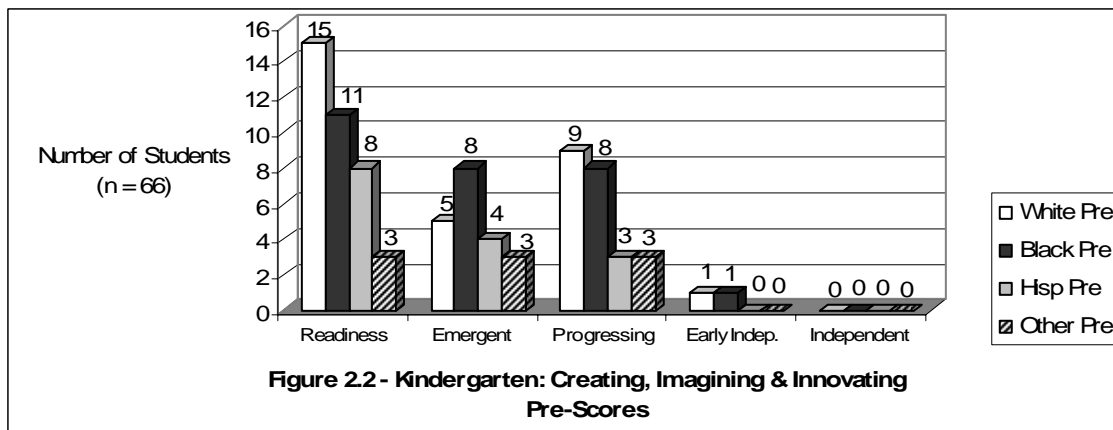
Early Independent: IB occasionally demonstrated by synthesizing & evaluating knowledge

Independent: IB consistently demonstrated uses of newly created information or products meaningfully.

Figure 2. Kindergarten: Creating, Imagining, & Innovating

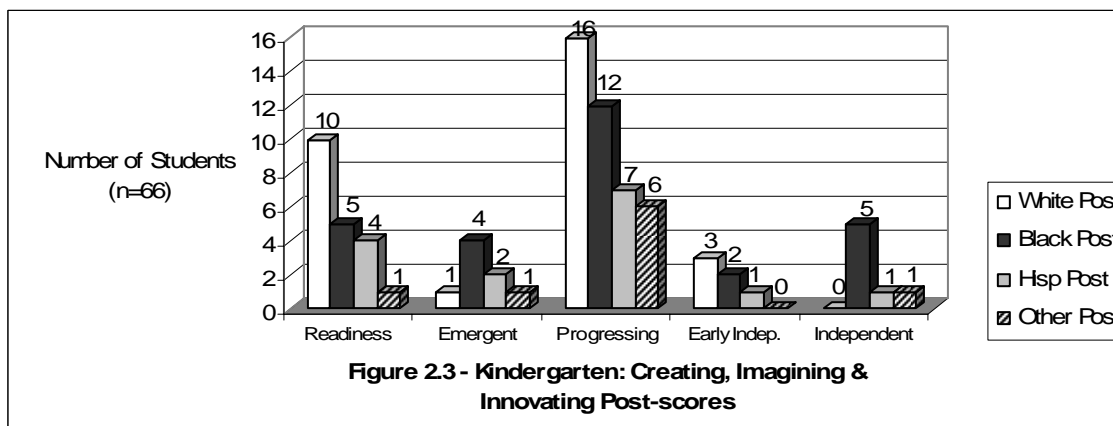


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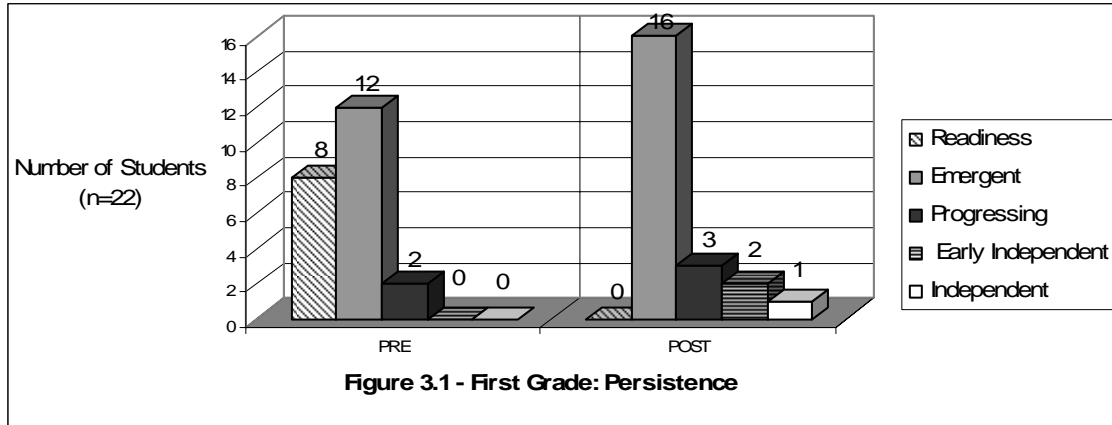
Intelligent Behavior: Creating, Imagining & Innovating - Degrees of Development:

- Explores resources, manipulatives and other educational tools freely.
- Tries to do/complete tasks in different, unusual and imaginative ways.
- Analyzes ideas and/or products in new ways using fluency and flexibility.
- Reflects on newly created products and/or ideas through analyses, syntheses and evaluation.

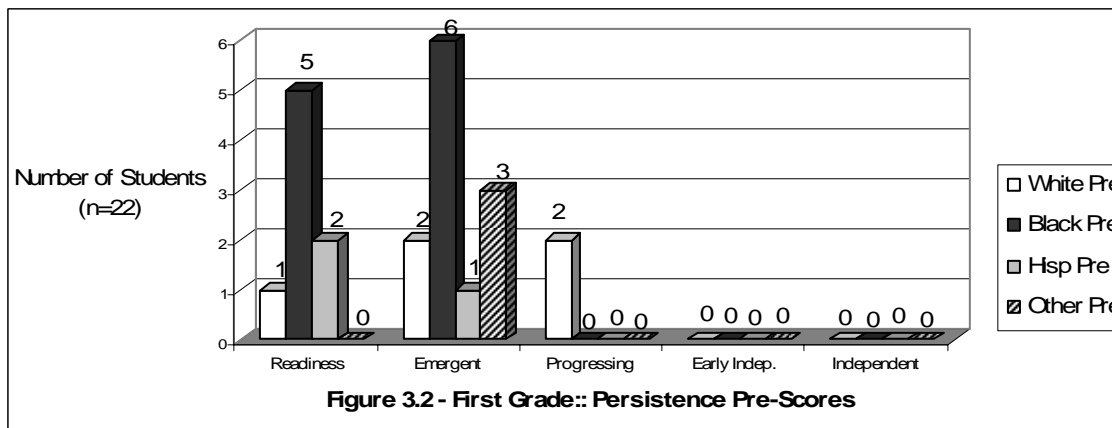


Readiness: IB explored and sporadically demonstrated
 Emergent: IB occasionally demonstrated by applying integrated knowledge
 Progressing: IB frequently demonstrated by extending and refining learning through analysis
 Early Independent: IB occasionally demonstrated by synthesizing & evaluating knowledge
 Independent: IB consistently demonstrated uses of newly created information or products meaningfully.

Figure 3. First Grade: Persistence

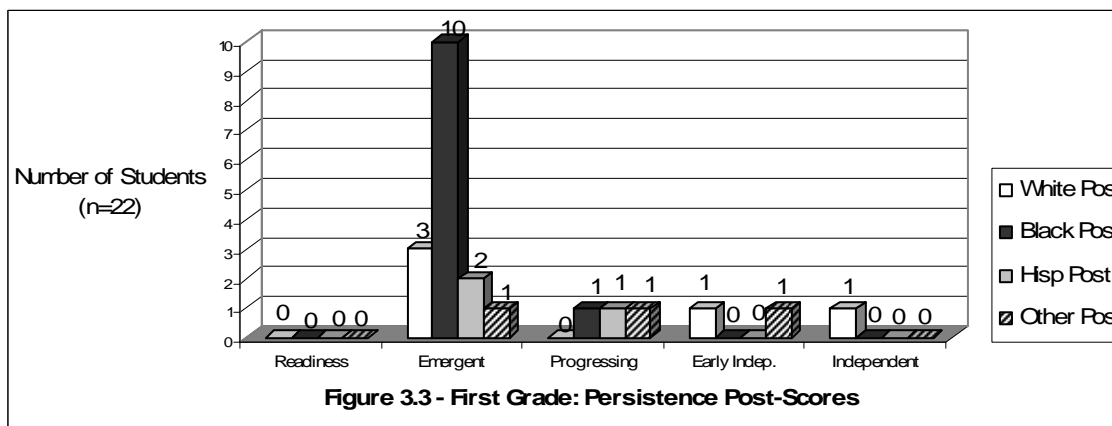


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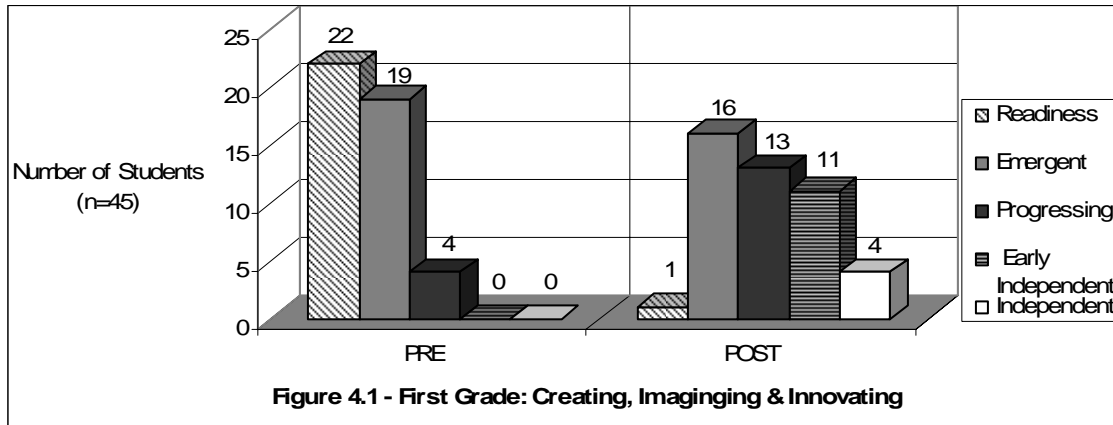
Intelligent Behavior: Persisting - Degrees of Development:

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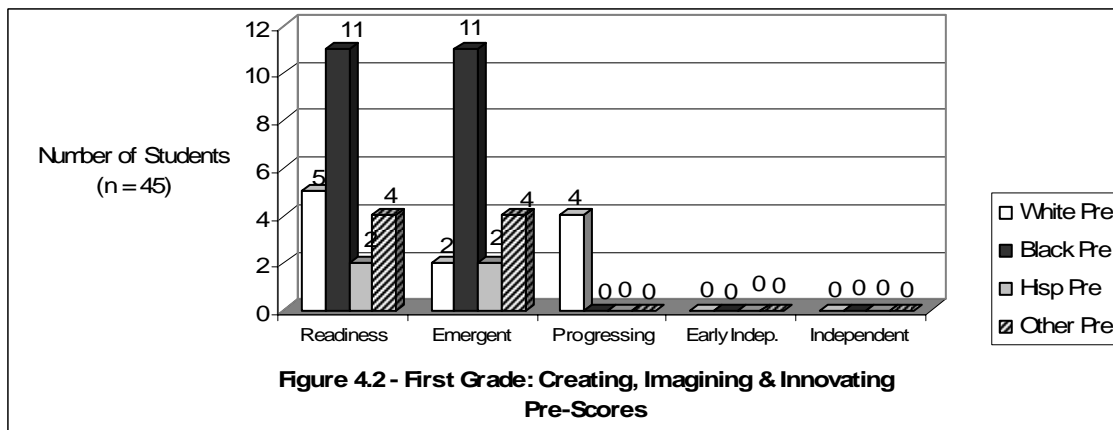


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Figure 4. First Grade: Creating, Imagining, & Innovating

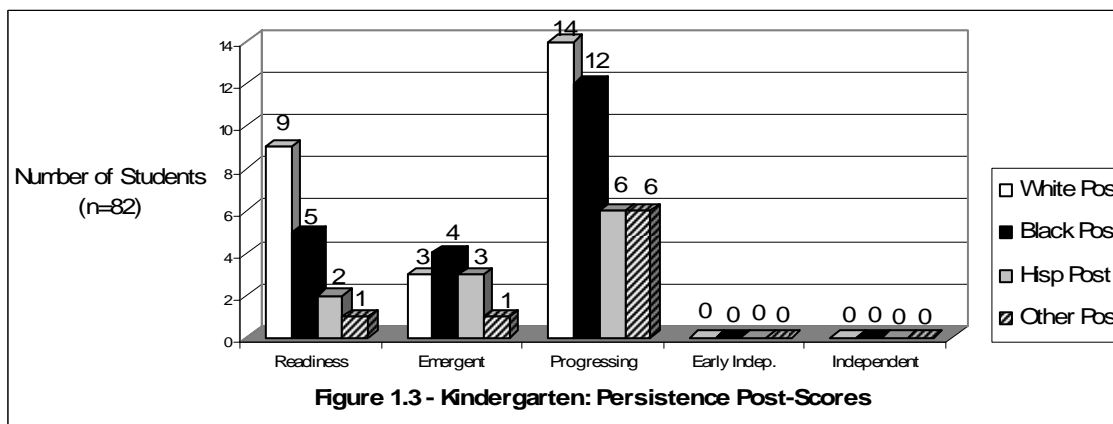


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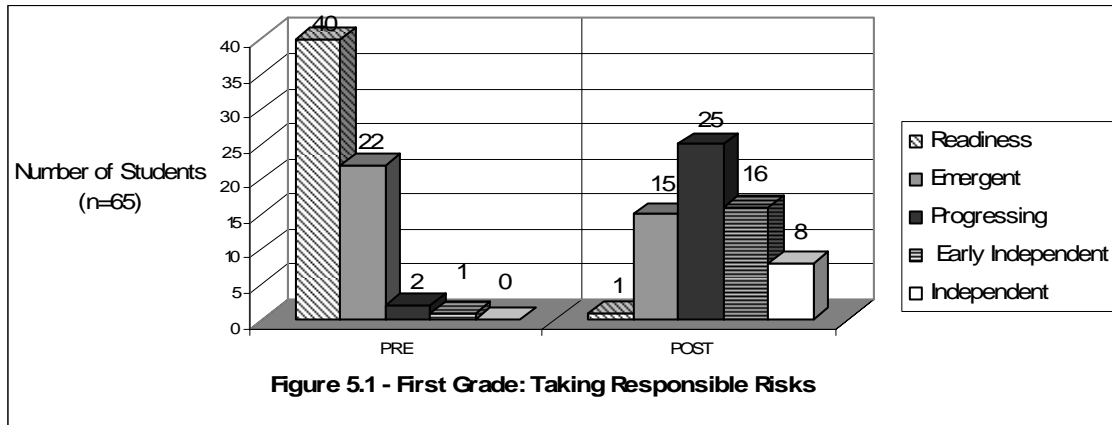
Intelligent Behavior: Creating, Imagining & Innovating - Degrees of Development

- Explores resources, manipulatives and other educational tools freely.
- Tries to do/complete tasks in different, unusual and imaginative ways.
- Analyzes ideas and/or products in new ways using fluency and flexibility.
- Reflects on newly created products and/or ideas through analyses, syntheses and evaluation.

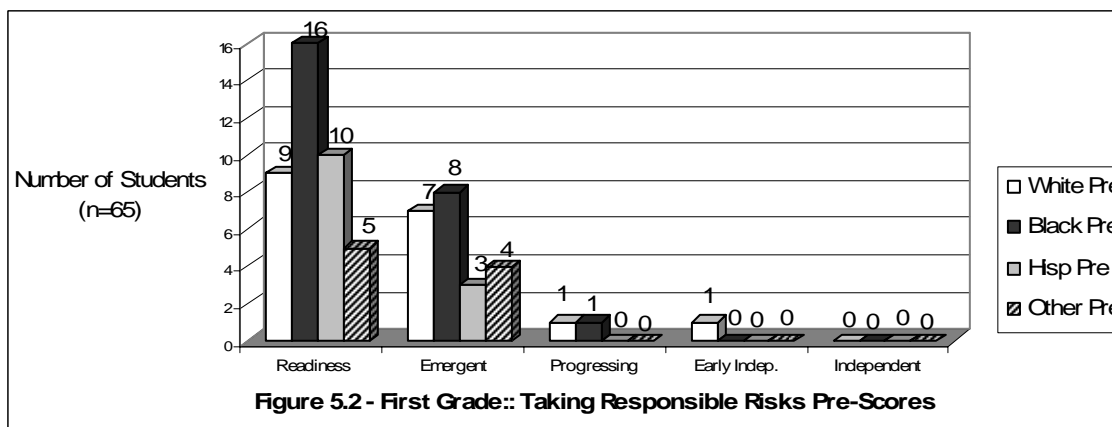


Readiness: IB explored and sporadically demonstrated
 Emergent: IB occasionally demonstrated by applying integrated knowledge
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Figure 5. First Grade: Taking Risks

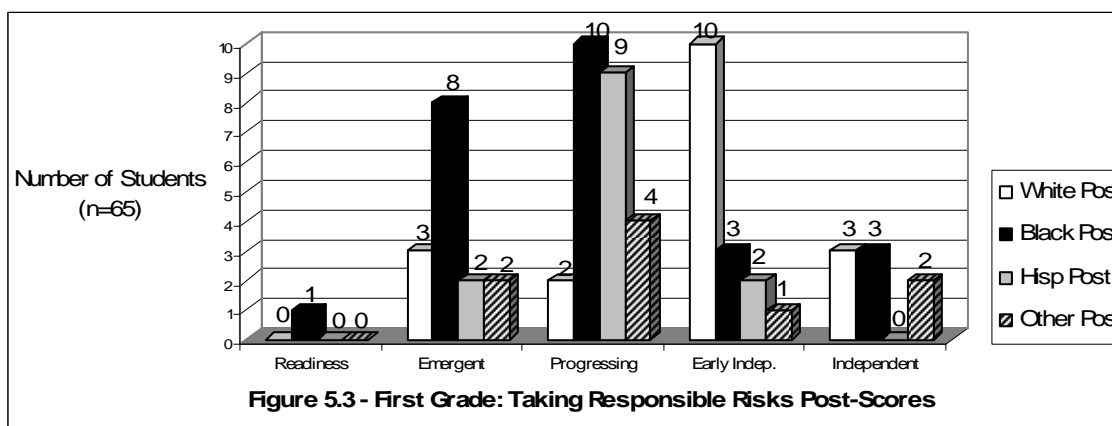


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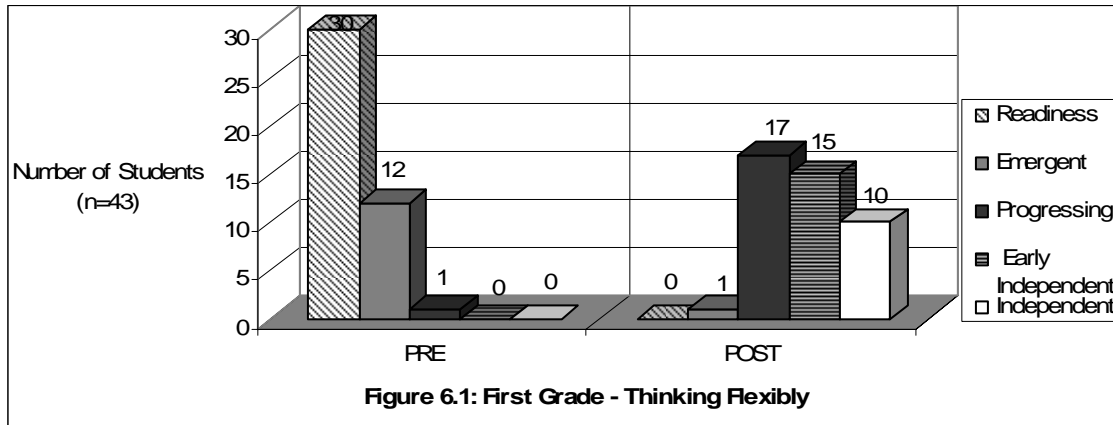
Intelligent Behavior: Taking Responsible Risks [Problem Solving] - Degrees of Development

- Avoids difficult challenging tasks. Rarely questions concepts or ideas.
- Uses a variety of strategies to address problems.
- Frequently addresses problems with a deep understanding of how to use appropriate thinking skills.
- Seeks and poses relevant questions that revolve around personal, prior knowledge and or problems.

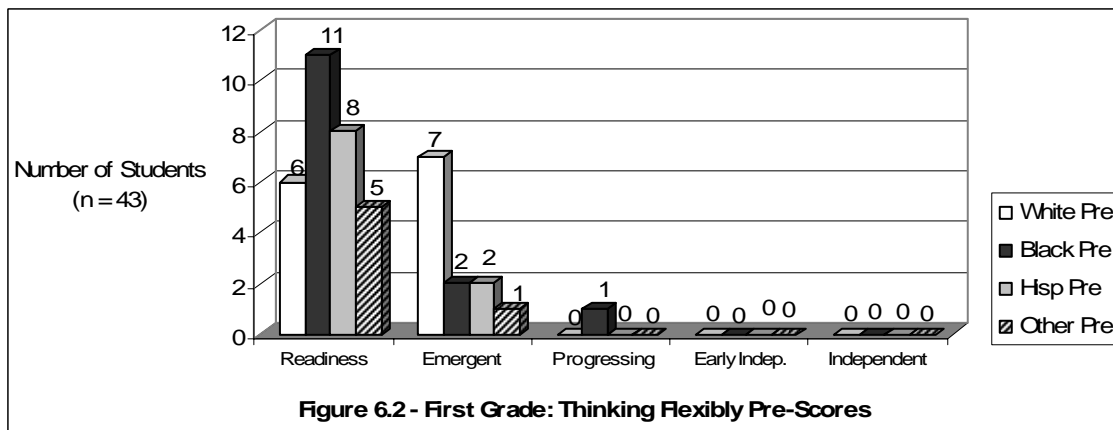


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Figure 6. First Grade: Thinking Flexibly

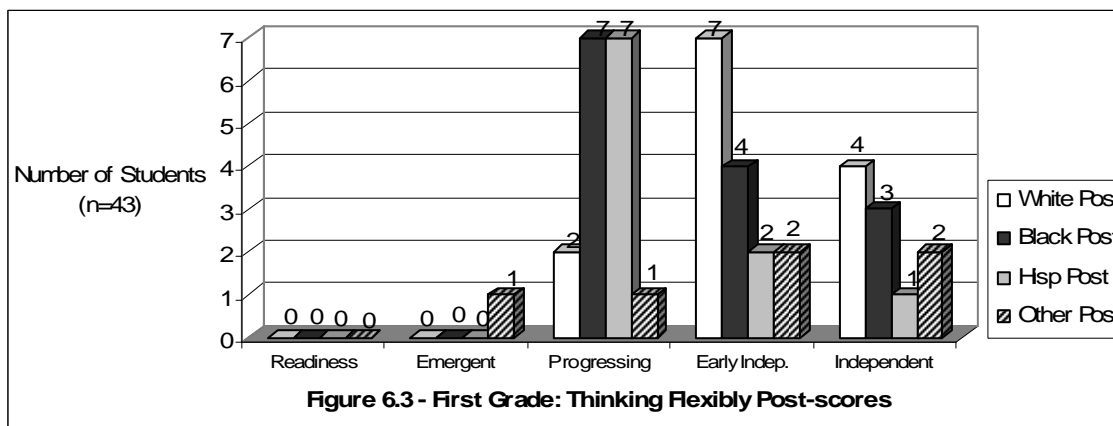


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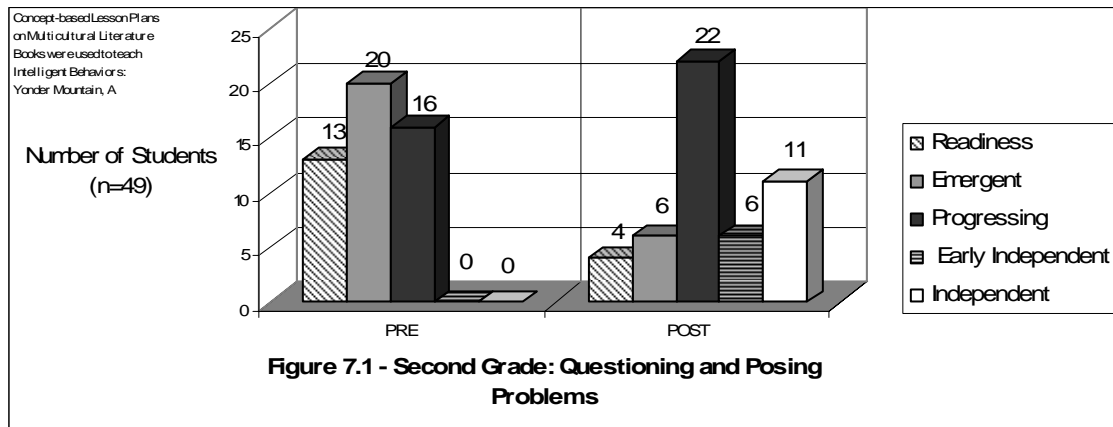
Intelligent Behavior: Thinking Flexibly [Reasoning] - Degrees of Development

- Is flexible in thought and brainstorms obvious or common knowledge approaches.
- Requires limited guidance and intervention through coaching from teachers and peers.
- Demonstrates flexibility of thought in multiple and diverse settings.
- Demonstrates effectively strategies for recognizing and solving problems and challenges. High risk taker.

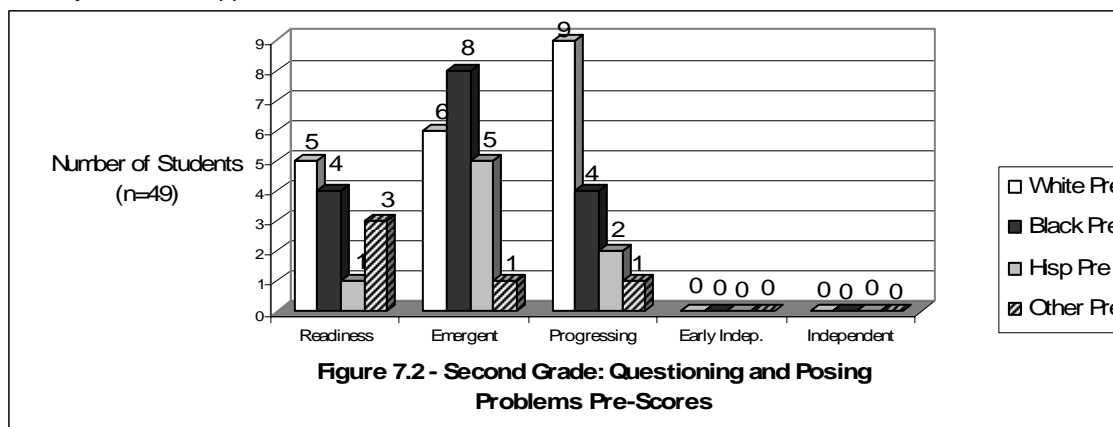


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Figure 7. Second Grade: Questioning and Posing Problems

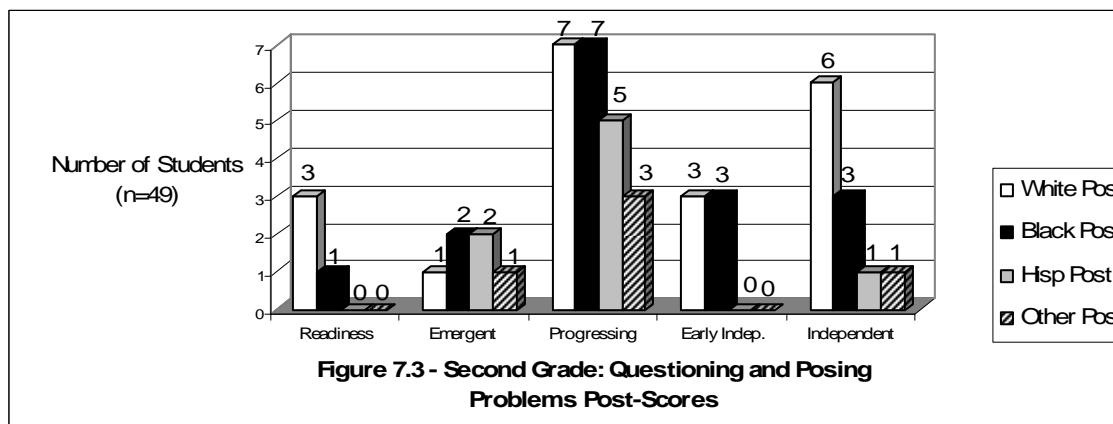


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Intelligent Behavior: Questioning and Posing Problems [Inquiry] - Degrees of Development

- Inquires and asks questions on topics of interest.
- Gathers information from multiple perspectives.
- Ask complex questions to create new problems to explore.
- Initiates further exploration on a topic in order to refine or expand understanding.



Readiness: IB explored and sporadically demonstrated

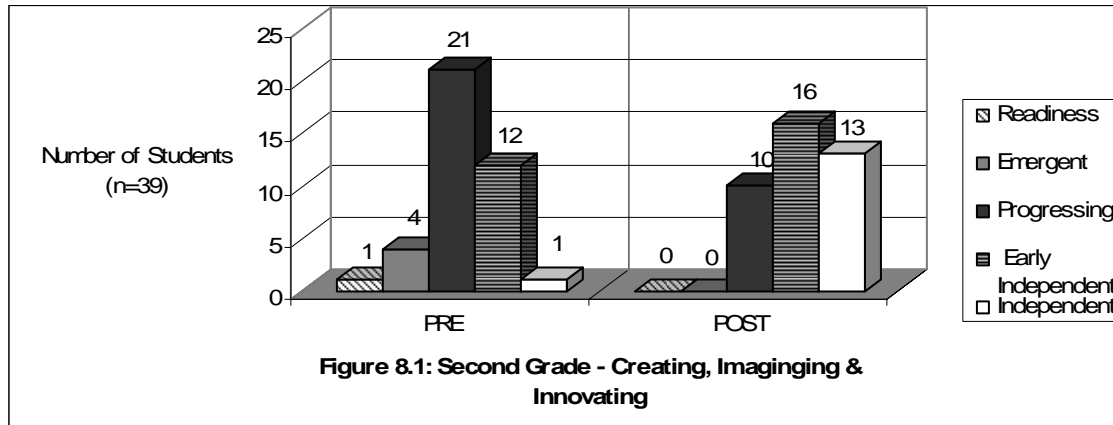
Emergent: IB occasionally demonstrated by applying integrated knowledge

Progressing: IB frequently demonstrated by extending and refining learning through analysis

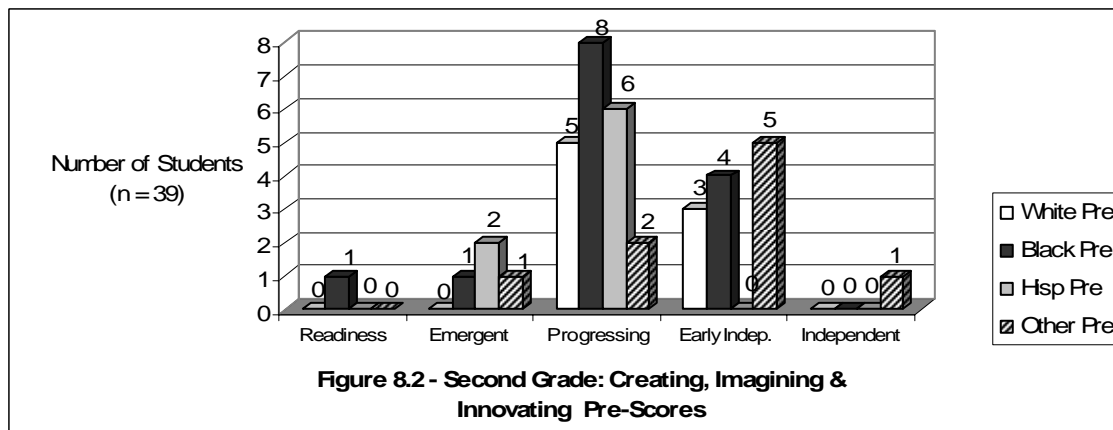
Early Independent: IB occasionally demonstrated by synthesizing & evaluating knowledge

Independent: IB consistently demonstrated uses of newly created information or products meaningfully.

Figure 8. Second Grade: Creating, Imagining and Innovating

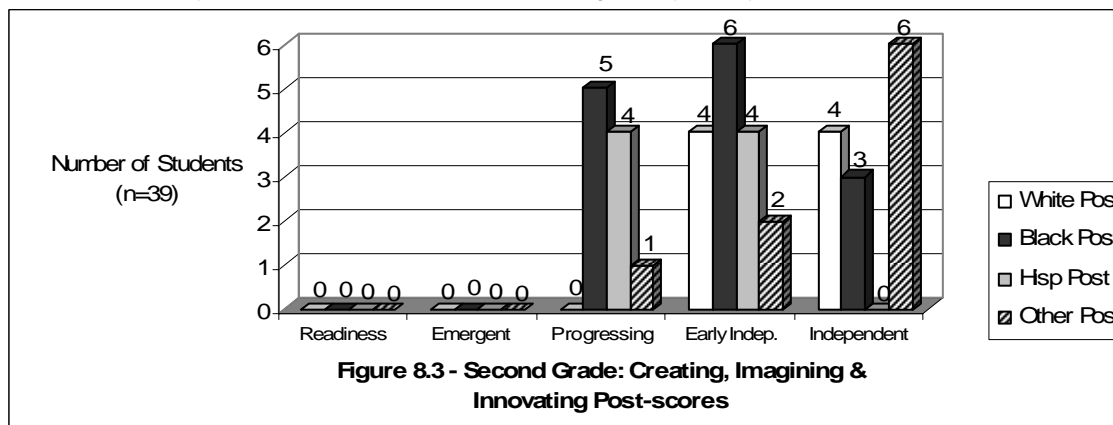


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Intelligent Behavior: Creating, Imagining & Innovating - Degrees of Development

- Explores resources, manipulatives and other educational tools freely.
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- Analyzes ideas and/or products in new ways using fluency and flexibility.
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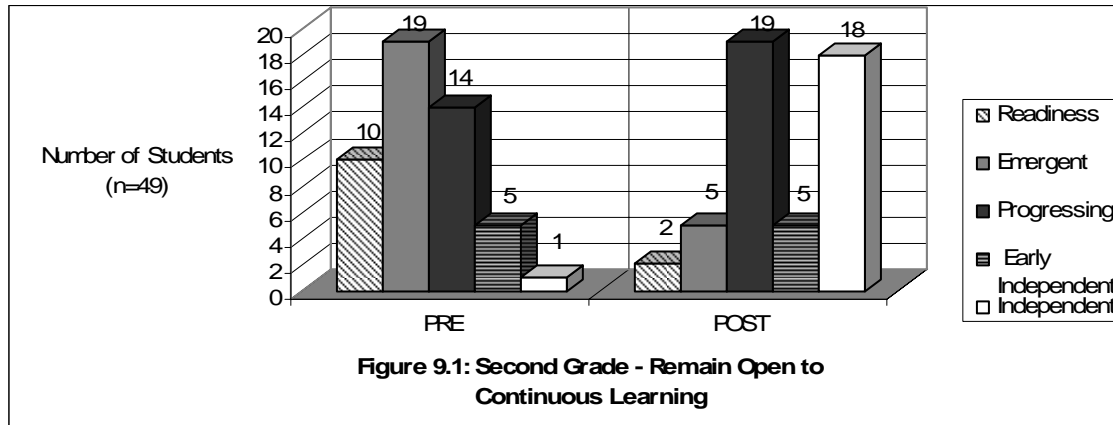
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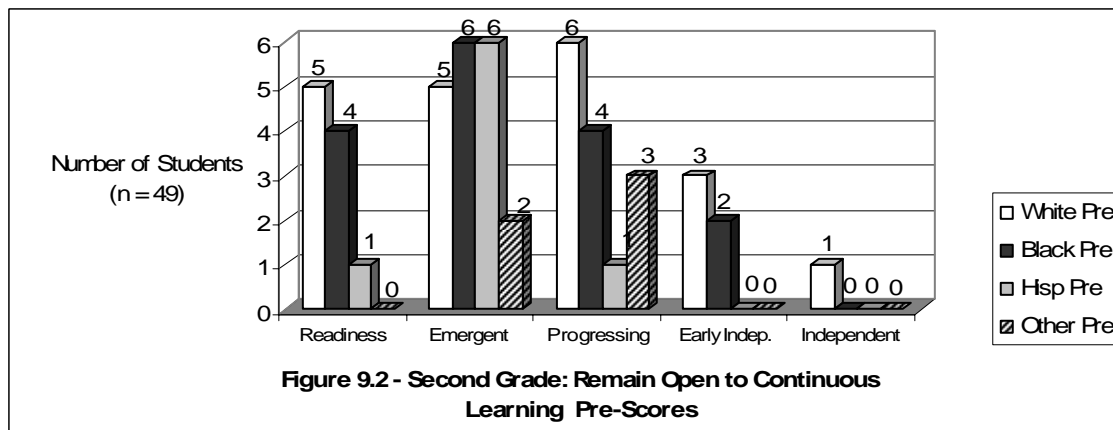
Early Independent: IB occasionally demonstrated by synthesizing & evaluating knowledge

Independent: IB consistently demonstrated uses of newly created information or products meaningfully.

Figure 9. Second Grade: Remain Open to Continuous Learning

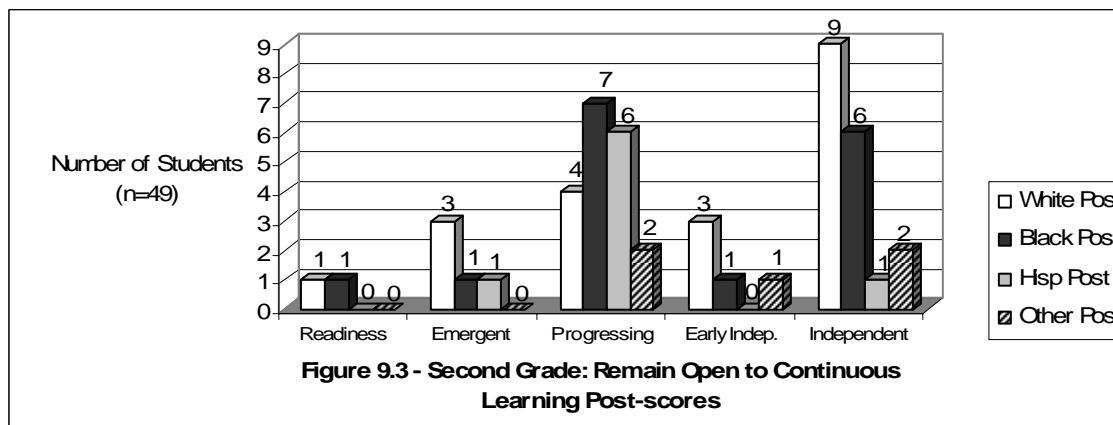


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Intelligent Behavior: Remaining Open to Continuous Learning [Interest] - Degrees of Development

- Collects special items of interest.
- Takes advantage of opportunities to continue to pursue and learn items of interest.
- Expresses passionate and sometimes unusual keen interest in topics, relationships and ideas of interest. Seeks the "what if" to create the new and unusual.



Readiness: IB explored and sporadically demonstrated

Emergent: IB occasionally demonstrated by applying integrated knowledge

Progressing: IB frequently demonstrated by extending and refining learning through analysis

Early Independent: IB occasionally demonstrated by synthesizing & evaluating knowledge

Independent: IB consistently demonstrated uses of newly created information or products meaningfully.