

Project Athena: A research demonstration project for economically disadvantaged promising learners.

**Center for Gifted Education
College of William and Mary**

Narrative Overview

The 2005-2006 year marked the successful completion of the third year of school system implementation of Project Athena and the fourth year of the overall grant through the U.S. Department of Education, Javits program. The purposes were to see if Title I students continued to make achievement gains on measures of reading comprehension and critical thinking as well as to consider the degree to which teachers change relative to differentiated teaching practices. Implementation of the William & Mary language arts units occurred in the treatment classrooms at grades 3-5, of seven school districts including Fairfax County, VA., Gloucester County, VA., Greene County, VA., Greenville, South Carolina, Montgomery County, Maryland, Newport News, VA., and Westmoreland County, VA. Year three implementation had a student population of 661 experimental students and 598 comparison students, for a total student population of 1259. Over three years of implementation, there were a total of 2771 students involved in Project Athena.

During fall, 2005 the Test of Critical Thinking (TCT) and the reading portion of the Iowa Test of Basic Skills (ITBS) were administered to the total student population as pre-assessment measures. New students to the project were also administered the Universal Nonverbal Intelligence Test (UNIT) and the Cognitive Abilities Test (CogAT) for baseline comparisons. Following pre-assessment, implementation of the William & Mary language arts curriculum in 37 treatment classrooms in Title 1 schools occurred spanning a period over 12 weeks ending in March, 2006. During the implementation cycle, teams of trained observers utilizing the Classroom Observation Scale-Revised (COS-R) and the Student Observation Scale (SOS), observed each teacher (treatment and comparison) twice, once early in the implementation cycle, and once toward the end of the cycle to assess treatment fidelity. Additionally, teachers employed pre- and post-performance-based assessments in literary analysis and persuasive writing. Another component of the curriculum implementation was the inclusion of Jacob's Ladder, a reading comprehension program, developed within the project as reading comprehension scaffolding strategies targeted to address the needs of individual or small groups of Title 1 students whose reading levels are at grade level or delayed. Post-assessment measures of TCT and ITBS, reading were administered following unit implementation.

In addition, two professional development institutes occurred during the project year. In August, 2005 a 2 ½ day teacher development institute for both veteran and new Project Athena experimental teachers and administrators was conducted. The institute was differentiated for each cohort. Secondly, a third and final midwinter institute was held March 2006. This forum allowed teachers to celebrate their students' successes by

sharing exemplars of student products through a learning station format and provided examples and stories of student growth.

The following teacher comment captures the overall teacher enthusiasm for the project, “I found myself really feeling that this program could work for all students if it is taught with some flexibility. What I found was awesome...I also discovered that the students that were challenged in their learning styles could benefit from the types of questioning, lessons, and literature...I began to challenge the students’ ways of thinking using many of the strategies learned from William and Mary. Overall, I was very impressed and would love to work with this in the future. I really like the effect that it had on the students.”

The research team led by Co-Principal Investigators, Dr. Joyce VanTassel-Baska and Dr. Bruce A. Bracken as well as Dr. Elissa Brown, Project Athena grant manager and Dr. Annie Feng, grant research director had the opportunity to share with national audiences research findings through presentations at several national conferences. In addition several manuscripts are being prepared for publication.

Research Highlights

Following are selected research findings from the 2005-2006 year of Project Athena as well as across all three years of implementation:

2005-2006 Findings

During Year Three (2005-2006) implementation of Project Athena, experimental students continued to obtain higher mean scores than comparison students on measures of both critical thinking and reading comprehension, registering larger pre-post gains. After controlling for initial differences on year three pre-assessment, experimental students performed statistically significant better than comparison students in the area of critical thinking.

In Year Three, experimental teachers continued to demonstrate high levels of differentiated instructional practices than their comparison peers on all measures of differentiated teaching behaviors.

Across three years (2003-2006)

Across three years, experimental students performed at a statistically significant better level than comparison students, suggesting that the project curriculum enforced critical thinking more than the alternative employed in comparison classroom.

Across three years, female students did better than male students on the test of critical thinking (TCT).

The three year longitudinal data also indicated that there was an ethnicity effect on both the TCT and the ITBS reading assessment, with White Americans registering the highest group performance, followed by African Americans, and by Hispanic American students; this pattern was true for both experimental and comparison groups.

Longitudinally, experimental teachers attained statistically significant better and educationally important and larger instructional improvement than comparison teachers, demonstrating a stable and effective use of research-based instructional strategies across three years' project participation.

Future Plans

Future plans for the fifth (and final) year of the grant, include descriptive case studies on participating school districts in Project Athena on implementation of innovation and reform. Successful scaling-up efforts in various school settings require innovation at all levels of leadership; classroom, school, and district. Scaling up also rests on the effective collaboration of varied expertise. Site visits consisting of focus group sessions with representative groups of teachers, individual interviews with principals and the administration of a system-wide survey will be conducted in Fall, 2006.