

Cross-Age Mentoring and Achievement of At-Risk Minority Middle School Students

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Abstract

Project BEST (Basic Educational Skills and Training) is a mentoring program involving Virginia Commonwealth University students and area middle school students. In the two-tiered program, VCU faculty mentor the Project BEST college students who, in turn, serve as mentors to the middle school students. Activities include Saturday mathematics and science enrichment seminars, after-school tutoring, and a week-long mathematics and science summer camp. Outcomes of the program show that Project BEST has positively impacted students' academic achievement and achievement responsibility.

Two thirds of all American students—but only about half of all African American, Hispanic and Native American students—who enter ninth grade will graduate with regular diplomas in four years. The consequences to our society at large and to each of the individuals are far reaching and pernicious. The lives of the students who drop out are characterized by greater rates of unemployment and underemployment, imprisonment, divorce and poverty (Orfield 2004).

Addressing the high dropout rates for urban youth requires action on many fronts, beginning even before students enter high school. In Richmond, Virginia, where nine out of ten of the students in the urban school division are students of color (Virginia Department of Education 2006), a mentoring partnership between the school division and Virginia Commonwealth University (VCU) seeks to provide at-risk middle school students with both the academic and personal skill support to not only succeed in high school but also to provide a foundation for continuing in a postsecondary program.

Project BEST (Basic Educational Skills and Training), originally established by VCU in 1989, is a cross-age mentoring program involving university and middle school students. It focuses on enriching academic performance in mathematics and science as well as enhancing student self-esteem and a sense of responsibility. Over the past two decades, this initiative has operated in a number of schools. This overview examines the mentoring program at Thompson Middle School.

Project BEST has benefited from the support of university leadership; VCU's president not only championed the initiative but also served as a faculty mentor. The dean of the School of Education is active in building partnerships with Richmond schools and works closely with other VCU deans and colleges to recruit student mentors and

faculty to work with the middle school teachers and students. Faculty in the Schools of Education and Engineering and the College of Humanities and Sciences (including the Departments of Mathematics and Physics) are engaged in Project BEST, underscoring the importance of cross-campus collaboration as a vital ingredient for successful university-school collaborations.

In Project BEST's cross-age mentoring the focus is on the relationship because developing positive interactions between mentor and students is viewed as the main mechanism by which middle school students develop greater self-esteem, connectedness, identity, and academic attitudes. Through regularly scheduled meetings between a child and an older person who provides guidance, support, attention, and caring over an extended period, mentoring can have a direct effect on the social skills, self-discipline, and self-esteem of students as well as their academic success (Karcher 2005). Further, research indicates that cross-age mentoring programs can reduce absenteeism and lower dropout rates among secondary students (Gensemer 2000).

Five features tend to define successful mentoring programs. They:

1. provide on-going training for mentors;
2. offer structured activities for mentors and mentees;
3. involve parents;
4. include ongoing monitoring of the program and its impact; and,
5. set clear expectations about meeting on a regular and frequent basis.

DuBois and others (2002) found that the presence of all five of these components tended to double the effectiveness of the mentoring program.

Features of Project BEST

Project BEST provides tutor training which emphasizes the development of academic skills as well as encourages positive self-esteem. It builds on these five features indicated above in multiple ways. Project BEST first provides *a two-tiered mentorship program*. College faculty and administrators and middle school teachers serve as mentors to Project BEST college students who, in turn, serve as mentors to middle school students in the program.

The college students tutor the middle school students one-on-one in mathematics and science for a minimum of four hours each week, for which the college students are paid. Funding is provided by a grant from the Richmond Public Schools and typically costs about \$25,000 annually.

The college mentors engage in training that addresses adolescent growth and development, strategies to enhance self-esteem in adolescents and multiple strategies for providing academic assistance to students.

The program has a coordinator (a teacher from Thompson) onsite at the school who works with the university and oversees the student mentors. In addition, two teachers

monitor the after-school tutoring program. These teachers maintain portfolios with class materials for the middle school students, and at least one teacher is always present to provide assistance and direction to the mentors during the tutorial sessions. Teachers are paid \$1,000 per semester from a VCU grant.

Middle school students selected for the program are considered at-risk for dropping out of school based on academic, attendance, and discipline concerns. Math and science teachers at Thompson recommend students who they believe would benefit from having a college role model and additional academic support.

College students selected as mentors for the program are required to have at least a 2.5 cumulative grade point average and prior experience working with children. Students complete a written application, participate in a formal interview with the Project Coordinator, and are recommended by their faculty.

Saturday mathematics and science enrichment seminars. To enhance middle school students' academic skills and to review key concepts included on Virginia's Standards of Learning tests in science, two enrichment seminars are also provided during the semester to the middle school students by VCU faculty. The Project BEST mentors and the coordinator also attend and assist VCU faculty. The "Nature of Science" seminar, for example, guides students through a scientific investigation. The "Detective Science" activity allows students to "solve the crime" using forensics concepts by investigating blood samples and patterns of blood spatters, fingerprints and footprints.

Week-long mathematics and science summer camp. In this phase of the Project BEST program, students are bused from Thompson each day to the VCU campus to meet with faculty and their mentors. In 2007, the theme of the Camp was "Global Citizenship: Think Globally, Act Locally." Students participated in a variety of hands-on activities, used technology to create reports and presentations, and went on field trips. In 2007, all Project BEST students were given the book *Nickeled and Dimed* by Barbara Ehrenreich, which all entering VCU freshmen were encouraged to read. The book helps students understand that education and preparation for a career are essential to earning a salary that is not "nickels and dimes." Each day after lunch, the students discussed chapters of the book and met with a range of professionals who talked about their careers, including a typical day on the job, what they found most exciting about their work and what education is required for their position. The speakers in the most recent camp were a meteorologist, mathematician, physician, engineer and chemist. The camp concluded with a celebratory luncheon and meeting with the associate director of admissions who talked about requirements for college admission.

Program Impact and Opportunities

Data collected from the inception of Project BEST concluded that the program has a positive impact on middle school students' self-esteem and academic achievement (Simon, Reed, and Clark 1991). A recent study of the students from Thompson Middle School involved in Project BEST found that the program positively impacted students'

academic achievement and achievement responsibility. Middle school students in Project BEST out-performed their peers on both the state mathematics and science tests administered in the spring of 2007. Students in the program had a significant increase in positive self perceptions. Compared to a control group, students in Project BEST were also more likely to express an interest in careers that require skills and competencies in mathematics and science (Simon, Abrams, and Warren 2007).

These positive gains need to be put into the context of underachieving preadolescent and adolescent culture. These middle school students often mentioned that doing well in school was not viewed positively by many of their peers. Mentors reported that students said it was sometimes easier to pretend they did not know something in order not to stand out. Mentoring programs provide assistance to mentors so that they are able to dispel negative ideas about academic success and help these students understand that they can be both popular and achieve in school.

Comments from many students in Project BEST indicated that they saw the future only as far as high school life or not far beyond that. Strategies to introduce at-risk students to college and to careers in mathematics and science calls for including younger role models (professionals who are within five years of completing college) so that a vision of the students' future appears attainable. This short-term view of the future underscores the importance of using college-age mentors with middle school students to encourage them to think beyond high school to college possibilities.

Project BEST has demonstrated that positive change is possible with an effective mentoring partnership between a university and school. A mutually respectful relationship between a college mentor and an at-risk middle school student—supported by both university faculty and school teachers—can provide a positive role model, encourage intellectual and personal growth, and, importantly, provide a vision of what the middle school student's future might be.

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