

**STREAMLINED MATH TO ELIMINATE THE NEED FOR  
REMEDICATION AT THE COLLEGE LEVEL**

By

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We begin by stating, keep using current methods in math will only produce the same old results of failing and dropout students. We call this staying inside the box. So, we looked outside the box. How do we climb outside the box? The answer is: students will basically stay the same; we cannot provide for a missing father or mother in the home;

The answer must be: we must change ourselves as teachers. To make this change, three things must happen. First, we have to know the discipline. Second, we must know the universal principles of pedagogy. Third, both the discipline and the pedagogy must be fused into one person.

We tested this proposed answer in a six-week summer math project with 12 District of Columbia Public School graduates who had been admitted to UDC as freshmen for this fall. They were admitted to the project on a first come, first served basis without any screening.

The problem for this exploratory research project was to ascertain if a short, intensive six-week project in basic math and introductory algebra would produce a recognizable improvement in the math performance of entering UDC freshmen students as measured by the UDC math placement test. (UDC requires approximately 85% of its freshmen students to take two remedial math courses: Basic Math and Introductory Algebra. It takes a year to complete the two courses.) With two exceptions, the pre-test results showed all the rest of the students would be required to enroll in Basic Math.

The results showed a 78% improvement for Basic Math, and a 44% improvement for Introductory Algebra. The differences between the pre-test and post-test means for

both courses were statistically significant. Three of the 12 students tested out of both courses. Another three tested out of the Basic Math, and the remaining six showed a marked improvement in the basic course.

The project was funded for \$8000. No calculators were allowed, and no pictures were used in the handouts. It was all math. We are now absolutely convinced that an eight-week program will insure the exemption of similar students from both remedial courses.

The pedagogy used in the project is described in two recently published books by us: *American Education Apartheid—Again?* and *Color-Blind Teaching: Excellence for Diverse Classrooms*.

Also, in an effort to improve the retention in both remedial and college level courses, two workshops on pedagogy for mathematics faculty have been completed, and the faculty's evaluations are included in the second handout. In general, these faculty members made it clear they, along with others, needed the pedagogical training reported in the two books.