What Educators Can Do to Narrow the Performance Gap

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Talk prepared for Worcester Research Bureau, Worcester, Massachusetts May 14, 2009

I. What Education Policy Makers Need to Know

A. Sources of Information

- 1. Observations of teachers and administrators
- 2. Research findings on learning processes by National Mathematics Advisory Panel.
- 3. Factors that account for success in narrowing the gap in schools or programs, like the MA vocational/technical high schools, Match, KIPP schools, or Harlem Children's Zone schools.

http://www.telegram.com/article/20090504/NEWS/905040354/1101

- 4. Research findings on reading instruction by the National Reading Panel, used in Reading First, an initiative that can be credited with helping to narrow the gap according to 2008 NAEP reading test scores.
- 5. Relevant findings and recommendations of the National Mathematics Advisory Panel.
- 6. Research on effectiveness of math and reading curriculum programs in urban elementary and middle schools. E.g., Mathematica studies of four math programs and four reading program.

(http://www.mathematica-mpr.com/publications/pdfs/education/selectsupplreading.pdf) and other relevant research, e.g., http://www.rand.org/pallrd/1106/pubs/monographs/2006/RAND MG480.pdf) and http://www.rand.org/pallrd/1106/pubs/monographs/2006/RAND MG480.pdf)

B. Data to Collect on Low-Achievers

- 1. Attendance records.
- 2. Mobility rates. http://www.masslive.com/springfield/republican/index.ssf?/base/news-20/1239779887261150.xml&coll=1
- 3. Fluency in English. Data needed on age, how long in this country, attendance records, mobility rate.
- 4. Mathematics and reading programs used in MA schools with large numbers of low-performing students? http://www.doe.mass.edu/boe/docs/0508/item2.html

- 5. Observations of teachers and administrators via surveys.
- 6. Mathematics and reading knowledge of teachers in low-performing elementary and middle schools.
 - 7. Teacher absentee and turnover rates.
 - 8. Class size in the primary grades.

II. What Needs To Be Explored:

- A. Can factors seemingly accounting for academic effectiveness of KIPP schools or MA regional vocational/technical high schools be scaled up to other schools?
 - B. How important is choice in motivating students and parents?
- C. Do programs providing training and a certificate in an occupational trade motivate struggling students to develop adequate reading, writing, and mathematical skills?

III. Possible Ways to Narrow the Gap

- A. Encourage use of only one or two research-based mathematics and reading curriculum programs in low-performing schools across the state to help urban children who move within the state. Bring superintendents from these school districts together to agree on piloting use of no more than two different reading and mathematics programs in K-7, both of which are based on NRP and NMAP findings, to find out which works better.
- B. Upgrade cut-scores on licensure tests for prospective early childhood, elementary, and special education teachers so that more academically capable teachers are hired from the outset.
- C. Remove negative labels from low-performing school districts willing to pilot research-based mathematics and reading programs in K-7 in order to attract and retain more qualified and motivated teachers.
- D. Encourage formation of more schools like Match, KIPP, and schools operated by Harlem Children's Zone. (http://www.nytimes.com/2009/05/08/opinion/08brooks.html?emc=eta1)
- E. Fund full-day pre-schools in low-income neighborhoods whose curricula address the curriculum standards in "Guidelines for Preschool Learning Experiences," put out by the DESE and the Early Childhood Advisory Council to the Board of Education in April 2003 (available from the Department of Early Education and Care), and whose teachers meet the standards required for the Early Childhood license.
- F. Expand dramatically the number of independent or regional vocational/technical high schools in the state. The 19th/20th century concept of the "comprehensive American high school" makes less and less sense in the 21st century.
 - G. Extend the school day and school year, and mandate summer school for low-achievers.
 - H. Restore meaningful school discipline.