

# A miracle for urban schools?

March 21, 2010 by [ParentInProgress](#) in

## **Hill vs. Board of Education; A miracle for urban schools?**

*Brain-training program might “revolutionize education”*

You may not recognize the name Oliver Hill, Sr., but you’ll likely know his work. The great civil rights attorney won countless cases that changed the course of history for African Americans, including *Brown vs. Board of Education*. Among his long list of legal accomplishments, Hill’s diligent and persistent work helped to end legalized segregation (“separate but equal”), equalize pay for African American teachers, and provide access to school buses. In 1999, eight years before his death, Oliver Hill, Sr. was awarded the highest civilian award in the United States: the Presidential Medal of Freedom.

Today his son and namesake, a professor and Chair of the Department of Psychology at Virginia State University, is following in his father’s footsteps, fighting the inequalities often associated with certain socioeconomic factors like race, income and location. For Dr. Oliver Hill, Jr., however, the battle is not in the courtroom, but the classroom.

Like many teachers and administrators working in urban school districts, Dr. Hill has been frustrated by the huge learning gaps between students of high- and low-socioeconomic status, and the small number of low-socioeconomic students pursuing STEM (Science, Technology, Engineering, and Mathematics)-related courses. Hoping to change these inequalities, Dr. Hill proposed a study to test a highly acclaimed brain-training program.

Funded by a grant for the National Science Foundation, the study uses a cognitive skills training program created by LearningRx. About 100 middle and high school students in Petersburg, Virginia will use an online application via BrainSkills.com. Another 25 or so will receive one-on-one cognitive skills training about three times a week. According to Dr. Hill, Petersburg was chosen based on need: in 2007 the school district was in the bottom of the state’s education rankings and had the highest drop-out and teen pregnancy rate in the state.

The hope is that by strengthening cognitive skills – like logic and reasoning, processing speed, attention, memory and auditory and visual processing – students will increase their capacity for abstract thinking. And because abstract thinking is required for success in higher-level mathematics and science courses, a successful widespread application of this program could result in an increase in the number of (low-socioeconomic) students pursuing STEM (Science, Technology, Engineering, Mathematics)-related careers.

Although the largest portion of the study will begin in fall 2010, the pilot studies are already very encouraging, resulting in significant increases in both mathematics performance and in cognitive

measures. When Dr. Hill testified before the STEM education hearings of the Commerce, Justice & Science Subcommittee in February 2010, he stated:

“This approach has the potential to revolutionize education in general, and STEM education in particular. We think this addresses one of the primary developmental problems that block success in mathematics and science classes – weak cognitive skills.”\*\*

The Petersburg school district may be representative of the correlation between low socioeconomic status and weak cognitive skills, but like his father, Oliver Hill, Jr. is working to break that link. Before the pilot studies, only one school in the district was accredited. Since the initial implementation of the cognitive skills training program and other pedagogical interventions instituted by the project, four of seven earned accreditation and the remaining three met 26 of the 29 indicators. Perhaps most impressive: In 2009, Petersburg High School earned its full accreditation in the State Standards of Learning tests ... for the very first time.

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Media wishing to cover the study can contact Tanya Mitchell, VP of Development and Research with LearningRx by calling (719)955-6703 or emailing [Tanya@LearningRx.com](mailto:Tanya@LearningRx.com).

\*\* (SOURCE: [http://appropriations.house.gov/Witness\\_testimony/CJS/2011\\_STEM\\_Ed\\_Heari...](http://appropriations.house.gov/Witness_testimony/CJS/2011_STEM_Ed_Heari...))