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Closing the Achievement Gap: Favoring a Literacy-Based Approach to Solving the Nation's Education Crisis

Timothy M. Siverd
College of William and Mary

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Abstract

This paper provides an overview of the educational achievement gap, paying particular attention to the gap between white and minority students. Additionally, this paper explores why closing the achievement gap is important, and why it is hard to do. The goal of this paper is to suggest that using a literacy-based method will produce superior results than using STEM-field methods by highlighting a "best practice," Musick Elementary School in Newark, California.

Closing the "achievement gap" is a vital issue in the current educational landscape. Many proposed methods for closing the achievement gap focus on improving competency in math and science to ensure that minority students are better represented in higher-level math and science classes (Riegel-Crumb, Grodsky, 2010).

However, focusing on math/science is not working. If anything, the achievement gap within the United States is widening (Lagorio, 2005). Therfore,a switch in focus is necessary. Specifically, working to close the achievement gap from a literacy standpoint has been proven to produce superior results compared to the current Science, Technology, Engineering, and Math (STEM)-related practices. It is logical, for example, to assume that enhanced literacy skills would also improve student achievement in the math/science classrooms; student who can read better will be able to navigate the math/science textbooks better and comprehend more of the material presented ("Improving reading skills). Therefore, the United States should shift attention toward improving literacy in its attempt to close its achievement gap.

This paper first defines and gives an overview of the "achievement gap." Then it explains why closing the achievement gap is important and why it is hard to do. Before presenting conclusions, it presents as an exemplar a literacy-based program that has demonstrated success in closing the achievement gap. Its purpose is to highlight existing research to challenge the assumption that Science, Math, Engineering, and Technology (STEM)-based approaches will do as much good as literacy interventions in closing the achievement gap.

Overview of the "achievement gap"

The term "achievement gap" is defined most concisely by the US Department of Education as "the difference in academic performance between ethnic groups" ("What is the

achievement gap?"). To be sure, there are various interpretations of the term, and the achievement gaps between genders and socioeconomic classes are also pressing issues in the current educational landscape (Gorman). This paper, however, will focus on the racial achievement gap, as it is the most recognizable and arguably the most urgent.

The most difficult aspect of combatting the achievement gap is its early start. In fact, the gap between white and minority students exists as early as kindergarten and widens as the students progress through school. This claim is supported by the National Assessment of Educational Progress, which showed a significant difference in achievement between white and minority students at both nine and seventeen years of age (Williams, 2011). Furthermore, a study shows that the achievement gap in science not only persists, but continues to grow (Bacharach, Baumeister, & Furr, 2003). Additionally, though the achievement gap in math narrowed between 1978 and 1999, it has remained static since (Cavanagh, 2009).

The outlook for the achievement gap with literacy is similarly bleak. According to a 2006 National Assessment of Educational Practices study, the difference in test percentages between white and minority students hovered around 30%, with the gap being further widened in urban locales (Teale, Paciga, & Hoffman, 2007).

<div align="center">Why Closing the Achievement Gap is Important</div>

It is imperative to consider the factors that have contributed to the depravity of achievement between white and minority students. According to Cleveland-area education reformer and Harvard professor Ron Ferguson, education is the next civil rights issue for a number of reasons, including:

- Average grade of students: According to Ferguson, the average grade of black students is a C-plus, while the average grade of white students is a B-plus (Brett, 2011).

- Misperception of wealthy neighborhoods: Even in wealthy suburbs, black students are not as well-off as white students. Many perceive that money erases the adverse effects of the achievement gap; in reality, research shows that it still persists, and that wealthy black students remain at a disadvantage compared to their white counterparts (Brett, 2011).

- Parental value on academics: Black parents are not as academically-oriented; they tend to own fewer books than white parents and cease reading to their children at an earlier age (Brett, 2011).

- Teacher bias: According to Ferguson, some teachers assume that black children are less likely to complete work because they are lazy (in actuality, it is because many simply possess a different skill set) (Brett, 2011).

These various perceptions black students must overcome are severe, and Ferguson believes extra attention must be paid to the current achievement gap. Because the gap is widening, attention to these current issues is ever more vital. With all these factors stacked against minority students, it is becoming harder for them to achieve success, and that course must be reversed immediately.

<div align="center">Why Closing the Achievement Gap is Hard to Do</div>

However, closing the achievement gap is an exceedingly difficult task; in fact, reformers have been trying – and failing – for decades. Some of the reasons closing the gap has thus far proved to be an impossible task include:

- Data: Getting the right data is one of the most central problems with regard to the achievement gap. In fact, without the right data, a school system might not know it even has a gap in student learning and development. For example, not all school districts even break their student testing data down to show how various racial and ethnic groups performed; if the schools are not even collecting the right data, expecting any progress on the achievement gap is unreasonable (Rotham, 2002).

- Teacher Attitudes: As school systems are trying to find solutions to their achievement gaps, they are increasingly finding teacher attitudes to be a roadblock. Many career, tenured teachers are resistant to change their commonly-accepted practices in favor of more lofty reform goals. This "old school" mentality has led to data collection showing a bias of white teachers toward black students; in fact, the Fort Wayne public school system collected data from a climate survey that black students had more negative interactions with their teachers than white students. Making progress on unequal education is difficult when the teacher's attitude is contributing to it (Rotham, 2002).

- Student Attitudes: On the other hand, however, poor student attitudes also contribute to the achievement gap. Granted, these attitudes are often a reflection of their teachers'. According to a well-publicized study, black students do not strive for academic achievement because it makes them feel they are "acting white." While there are other studies contradicting this characterization of black students' attitudes, studies across the board agree that black students are under-represented in Honors, Advanced Placement, and other advanced courses. While it is difficult to affect the achievement gap with poor teacher attitudes, it is similarly so without student enthusiasm (Rotham, 2002).

- Resource Disparities: Disparities in resources unquestionably exist in today's educational landscape. Though there is debate about the direct correlation between school district spending and student achievement, there is adequate evidence that schools that serve large numbers of poor children or children of color lack the bountiful economic resources that some of the wealthier school districts possess. When the schools that are serving the students with the lowest levels of educational achievement also have the lowest amounts of funding, it makes it exceedingly difficult to make any progress in closing the gap (Rotham, 2002).

Though every reformer has ideas on closing the achievement gap and most believe it is possible, factors similar to the afore-mentioned make it exceedingly difficult. The schools that have the lowest-achieving students tend to have similarly disparate levels of support, which only exacerbates and perpetuates the achievement gap. Though researchers and experts seem to disagree with the notion that resources should be taken from the wealthy to give to the under-privileged, it is exceptionally difficult to find ways to bring the lower-funded and achieving schools to the same level as the higher-achievers.

<u>Best Practice</u>

Musick Elementary School, located in Newark, California on the southeastern edge of the San Francisco Bay, has demonstrated considerable success in closing the achievement gap by focusing on improving literacy. Notably, Musick has achieved such large strides amid an ever-changing student demographic. Whereas in 1994, the school's minority population was just 50%, by 2004 it had ballooned to 80%; additionally, the English-learning population was just 24% in

2004, with 70% of students being most fluent in Spanish. Musick's students also suffer economically, with 40% receiving free or reduced lunch prices.

Despite the potentially crippling outside factors, Musick has flourished since its school-wide commitment to literacy initiatives in the late 1990s. Specifically, all of Musick's teachers pledged to adopt the "Mosaic of Thought" program for teaching literacy, which emphasizes reading-specific skills such as asking questions, drawing inferences, and synthesizing to build stronger, more confident readers, in their classrooms. Getting teachers on board required was a complex effort, as all teachers had to participate in intensive, multi-year, classroom-based training from the Public Education and Business Coalition on the Moasic of Thought strategies.

Additionally, the district allowed funding to transition one teacher to a reading specialist, as required by Mosaic. This reading specialist was particularly active, providing trainings/professional development and conducting in-class demonstrations and observations, among others. Encouraged by the initial success of this reading specialist, Musick soon added another, who worked solely to provide thorough one-on-one sessions to K-3 students who required extra assistance.

The school also implemented a daily "Drop Everything And Read" (DEAR) program. The amount of time spent on reading per day varied by teacher, but averaged 20 minutes for the primary grades and 45 in the upper grades. Further, to ensure this program was productive, Musick directed grant funding to ensure each classroom was equipped with a library of books for all possible reading levels.

Finally, the K-2 classes also conducted small group guided reading each day. This was augmented by a weekly "buddy writing" program which paired kindergarteners with first and

second graders. In these weekly sessions, the kindergarteners worked primarily on improving their writing skills while the first and second graders focused on editing.

Even though Musick already produced above-average scores on math standardized tests, this concentrated focus on literacy was still risky and groundbreaking. Musick devoted a considerable amount of time and financial resources on improving literacy rather than focusing on shoring up their pre-existing strengths (Symonds, 2004).
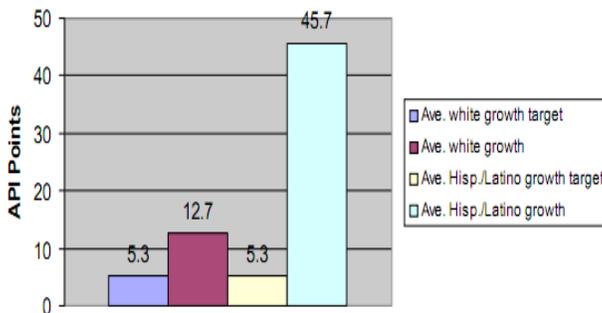
Figure 1. Target Growth vs. Actual Growth at Musick Elementary School
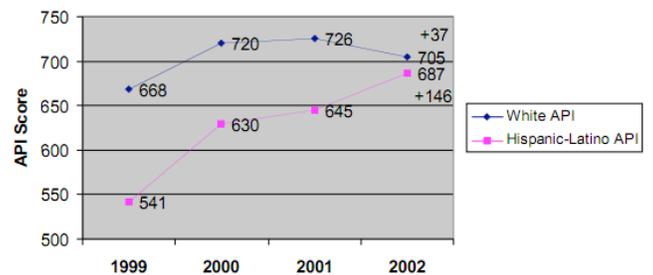
Figure 2. Hispanic/Latino vs. White API Scores at Musick Elementary School

Fortunately, this approach paid dividends. Figure 1, for example, shows that the improvement seen on standardized tests was significant – in fact, it was far larger than Musick even set its goal. Interestingly, there was progress was much more substantial among the Hispanic/Latino student population than the white students. Additionally, Figure 2 supports the forward movement suggested in Figure 30 among the Hispanic/Latino population, showing that the gap in test scores has closed from an all-time high of 127 points in 1999 to just 18 in 2002.

Achievement Gap Conclusions

Children in the United States have a universal right to a quality education. Therefore, a problem exists any time that one population of students is significantly outperforming another, as is certainly the current reality in the United States. Race gives a built-in advantage to white students and disadvantage to minorities, and it is the nation's responsibility to see that race ceases to be a factor in predicting student achievement.

As society advances, the United States has succumbed to external pressures to focus educational emphasis on improving the STEM fields. This focus, however, is flawed and is insufficient as it relates to the achievement gap within the country. Instead of focusing on competing globally, the United States needs to shift attention to what is best for its youngest citizens.

There, significantly more consideration should be given to developing and enhancing literacy skills in students. By working with the students' most basic skills – reading, comprehension, and reasoning – educators will, as in Musick, notice a drastic improvement in academic achievement; additionally, administrators will need to devote considerable time and energy to teacher training, both initially and incrementally throughout the year, as that was a huge contributing factor to Musick's success. The current amount of attention the United States is giving to closing the achievement gap is admirable and should be increased. With such an increase, however, a larger proportion of effort and resources should be shifted to literacy-based achievement gap-reducing programs. Though many sources are supportive of using literacy to close the achievement gap, more research on this topic is necessary.

To be sure, the achievement gap *must* be closed swiftly. If the United States is truly committed to this worthy endeavor, it will make a massive effort to increase literacy among its youth.

Applicability to the University Setting

College students are at an advantageous time in their lives – they have the support, both in resources and knowledge, at their college setting, they still have time to determine their path in life, and communities look to them for innovative ideas and enthusiasm. Because of this, college students should push the educational hierarchies in their communities to embrace literacy-based methods for closing the achievement gap and generally improving student achievement. As the College of William and Mary, for example, the College Partnership for Kids sends 325 students to tutor at 11 local schools, according to the William and Mary Office of Community Engagement and Scholarship Web site; another program, Project Phoenix, supplies 100 tutors to local schools, according to Elizabeth Miller, William and Mary's Coordinator for Community Engagement.

Therefore, at least 425 college students are entering local schools and have the power to push for implementation of programs similar to Musick Elementary School's. For example, students could take the initiative to run the Drop Everything and Read program, implement the "writing buddy" program, or raise funds to ensure that each classroom has an adequate supply of books. Though students would not be qualified to train teachers, they could supply the upper-level administrators with the benefits of training teachers on a literacy-based approach. Students themselves would not be able to transform an entire school's philosophy, but they can use their

voice to encourage the school administration to do so while simultaneously implementing some

of the specific programs Musick found to be so successful.

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