



Data-Driven Inquiry Improves Teaching and Student Results

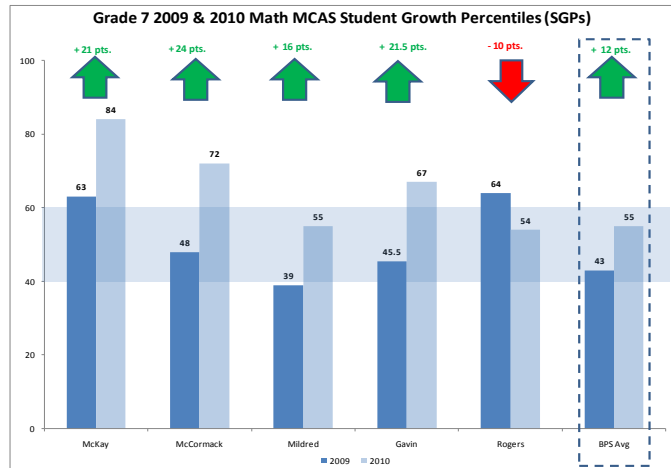
What matters most in how much students learn? Teachers.

Last year, the Boston Public Schools (BPS) and Boston Plan for Excellence (BPE) supported teams of teachers in fourteen schools — in an initiative then called Accelerating Improvement through Inquiry (AI²) — to spend at least an hour a week together, looking at recent data about their students and deciding on teaching strategies that might help them learn more. Preliminary results of this work — data-driven inquiry — are promising, both in terms of student results and teachers' satisfaction and confidence that it was helping make them better teachers.

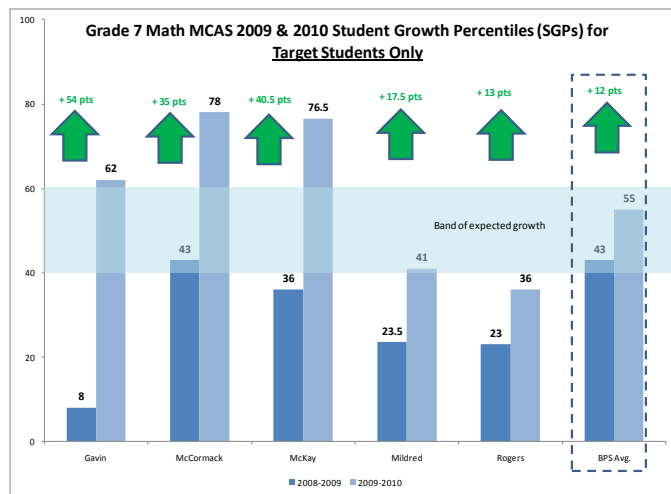
"CASH saw dramatic increases in ELA and math MCAS scores this year and I attribute these gains in large part to the work we engaged in through AI2," exclaimed Tanya Freeman-Wisdom, Headmaster of the Community Academy of Science and Health, a high school in Hyde Park.

Grade 7 exceeded expected growth .

At the middle school level particularly, the results were strong. Four middle or K-8 schools (the McCormack, Gavin, and Mildred Avenue and McKay) saw high growth rates in math — more than 20 median Student Growth Percentile (SGP) point gains,¹ on average. In English language arts (ELA), they grew by almost 10 median SGP points from 2009 to 2010. Results for the Rogers Middle School were less positive, showing a 10-point decline in median SGP in Math and a 10.5 point decline in ELA.²



Data-driven inquiry helped these schools get more of their seventh-grade students to improve at a higher rate than their academic peers across the state. When a school begins to achieve SGP levels at the 60th percentile, they are showing they can help their students catch up and move up to higher levels of achievement.



Outcomes for target students (those individual students receiving intensive interventions and supports) were even more impressive. The seventh-grade math median SGP for the Gavin Middle School's target students grew by a whopping 54 points!

¹ The median SGP is a new measure by the Massachusetts Department of Elementary and Secondary Education (DESE) that tracks how much progress students make over time. A higher median SGP indicates higher growth rates for students in those schools.

² BPE is currently studying implementation factors that may have contributed to this outcome.



The McKay K-8's grew by 40.5 points and the McCormack Middle School's by 35 points. Results for seventh-grade target students in ELA followed similar trends, with growth gains ranging from 6 to 29.5 median SGP points.

High school growth rates were more mixed — with some bright spots.

In high schools, where most of the schools undertaking inquiry had huge percentages of students starting high school far behind, results were more mixed. Four schools (New Mission, Community Academy of Science and Health, Parkway Academy of Technology and Health, and Charlestown) achieved growth in math, and three schools (Community Academy of Science and Health, Charlestown, and New Mission) saw strong gains in English. All these schools exceeded the district average, which declined five median SGP points in math and six points in English.³

Teachers attribute high student growth to the inquiry process.

Besides strong gains for students, teachers who work together in inquiry report unusually high degrees of satisfaction. Professional development, which is what inquiry essentially is, is often decried by teachers, who too often say it is a waste of their time.⁴ The University of Massachusetts' Donahue Institute surveyed participating teachers, and over two-thirds of respondents were confident that their work helped their students learn more. Three-quarters said that their school was better off for their work, and over half thought the changes in their schools would remain.

Equally encouraging, an astonishing 83% thought it had influenced how they taught, and three-quarters felt they were teaching in ways research shows are crucial for improving student achievement. Finally, inquiry seems to have positively changed teachers' views of their school leader: two-thirds thought he or she had been positively influenced by inquiry.

As Superintendent Johnson and her team work with schools to implement a multi-tiered approach to students' learning through the BPS Academic Achievement Framework, data-driven inquiry clearly will be a valuable tool through which schools can move forward.



Carnegie Corporation of New York

Accelerating Learning through Inquiry (AI²) is partnership of the Boston Plan for Excellence and Boston Public Schools, supported by the Carnegie Corporation of New York. AI² grew out of BPE's work implementing data-driven inquiry over several years, and it draws on lessons and tools developed by New Visions for Public Schools in New York and CUNY's Baruch College. Going forward, BPE will continue to partner with Boston schools to implement and refine data-driven inquiry.

³ Three high schools (Boston Community Leadership Academy, Brook Farm Academy, and Social Justice Academy) lost an average of 13.6 median SGP points in math, and four high schools (Boston Community Leadership Academy, Brook Farm Academy, Parkway Academy of Technology and Health, and Social Justice Academy) declined an average a loss of 5.75 median SGP points in ELA. BPE is currently analyzing implementation factors that may have contributed to this outcome.

⁴ See Mizell, H. (2010, Sept 22). The misuse of professional development. *EdWeek*. Retrieved at http://www.edweek.org/login.html?source=http://www.edweek.org/ew/articles/2010/09/22/04mizell_ep.h30.html&destination=http://www.edweek.org/ew/articles/2010/09/22/04mizell_ep.h30.html&levelId=1000