
**Pilot evaluation:
Impact of the Center for Education
Innovation on Teaching and Learning in
the New Bedford Public Schools**

*A study conducted by the
UMass Dartmouth Urban Initiative
for the Center for Education Innovation
at Friends Academy*

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ABOUT THE UMASS DARTMOUTH URBAN INITIATIVE

The UMass Dartmouth Urban Initiative (<http://www.umassd.edu/urbaninitiative/>) was established in 2008 to align university resources with the challenges faced by and the opportunities available to Massachusetts' Gateway Cities, with an emphasis on neighboring Fall River and New Bedford. Not only does the Urban Initiative conduct community-based research in these cities and provide their organizations and institutions with technical assistance, but we also engage undergraduate and graduate students in this work to build their skills and encourage them to invest their talents in the state's smaller industrial cities.

ABOUT THE CENTER FOR EDUCATION INNOVATION

The Center for Education Innovation at Friends Academy (<http://www.ceifriendsacademy.org/>) was established in 2011 to offer an authentic, transformative solution to our area's urban underperforming schools, improving both the learning environment in the classroom and the outcomes of the students. This mission is accomplished through the provision of professional development and mentoring, coupled with the introduction of technology hardware and software to allow education to be individualized to the needs of the student. This transformation is sustained and spread throughout school districts by training those teachers who show the greatest promise as a result of our work to train and mentor their colleagues. CEI's work is currently focused on the Gateway City of New Bedford.

Program background

The Center for Education Innovation (CEI) at Friends Academy works to increase the effectiveness of New Bedford Public Schools (NBPS) teachers by providing them with high-caliber training, technology, and coaching. In the short-term, this intervention is aimed at improving teaching quality and collaboration at select schools. In the long-term, CEI expects that these improvements will translate to gains in student achievement and school performance. If CEI's program is implemented district-wide, this is intended to result in improved outcomes for the entire district.

During the 2013-14 school year, CEI's program was instituted in the Campbell and Lincoln elementary schools, reaching a total of 60 teachers and, by extension, 1,060 students. As part of CEI's programming, these teachers received hardware (computers and iPads), software, access upgrades, guided participation in a professional development curriculum, one professional development day, and one-on-one mentoring to support their integration of technology and the curriculum in their classrooms.

Program theory & goals

In the short-term, the goals of CEI are to improve teaching quality and collaboration among program participants. In the long-term, CEI expects that these short-term impacts will translate to improved outcomes for students, their schools, and the entire New Bedford Public Schools system.

The overarching theory behind CEI's program activities and goals is that high-quality professional development for teachers, delivered in a collaborative environment and coupled with access to and training for integrating technology in the classroom, results in teachers who are more effective and collaborative. This theory is supported by research conducted by the University of Chicago Consortium for School

Research, which links positive impacts in the areas of collaborative teaching (including professional development) and ambitious instruction to improved student achievement. Therefore, if CEI positively influences teacher effectiveness and collaboration, participating students and schools are likely to perform better over the long-term.ⁱ

Evaluation overview

To better understand its impact and plan for scaling up its model to reach more NBPS teachers and schools, CEI engaged the UMass Dartmouth Urban Initiative to evaluate its programming. In March 2014, the Urban Initiative began implementing a pilot evaluation while concurrently developing a long-term strategy with which CEI can evaluate its efforts sustainably in the long-term. The pilot evaluation, though limited in its ability to assert CEI's impact conclusively, was designed to assess the impact CEI is having on participating teachers, to provide CEI with a set of baseline data against which future impacts can be measured, and to test a set of evaluation strategies for feasibility so they can be incorporated into the organization's long-term evaluation plan.

Because CEI's program model reflects research-based practices, the Urban Initiative's approach to the evaluation design integrated research-based tools that have been demonstrated to measure the factors linked to CEI's short- and long-term goals. Through pre- and post-participation surveys and the analysis of data provided by principals at the participating schools, the Urban Initiative was able to learn about the degree to which teachers' perceptions, behaviors, and student outcomes changed during their engagement with CEI. At the same time, a survey was administered to their peers at non-participating elementary schools. This survey effectively demonstrated that, apart from issues related to technology, CEI teachers were not fundamentally different from their peers at the outset of their participation and this evaluation.

Program outcomes

While the limitations of the pilot evaluation—particularly the limited duration of the intervention being measured—suggested from the outset that conclusive findings were unlikely to emerge from this pilot evaluation, the Urban Initiative’s analysis yielded some promising indicators of impact in the areas of technology integration, collaborative teaching, the use and perceived value of assessment data, and even student performance.

1. Impact on technology integration

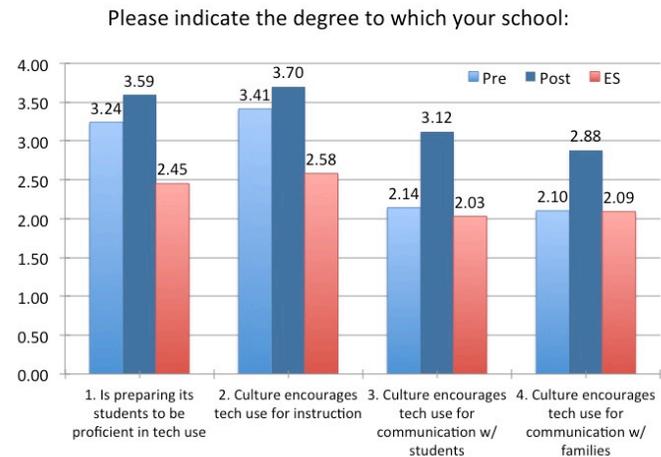
CEI is doubtless impacting the role of technology access and integration at both schools—factors that are essential to improving students’ technological literacy in a way that readies them for college and the workplace.

Compared to their peers in other NBPS elementary schools, participating teachers report having more access to technology, integrating it more in the classroom, and experiencing school cultures that promote technology as a tool for instruction and engagement. This finding suggests that Campbell and Lincoln students’ growth in technological literacy will likely outpace that of their peers, making this an outcome area CEI may wish to address in its future programming and evaluation.

Beyond improving access and removing barriers to technology, CEI appears to be influencing the degree to which teachers value the importance of technology integration. Compared with their peers, Campbell and Lincoln teachers voice a greater need for more time to integrate technology in the classroom—likely a reflection of the possibilities that CEI introduced. This influence may also underpin the finding that participating teachers are comparatively more concerned about students’ inability to use computers and the internet at home.

Perhaps most importantly, the post-participation survey results also reflected a positive change in school culture where technology integration is concerned. While Campbell and Lincoln teachers

were already atypical in this respect, indicating technology-oriented school cultures from the outset, they reported even greater levels of technology integration and cultural orientation in their schools at the end of the school year. CEI’s influence is apparent in this finding.

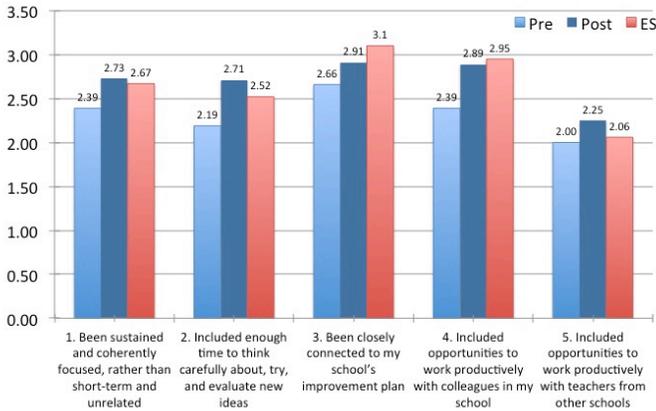


2. Impact on collaborative teaching

Survey findings indicate that CEI is playing a significant role in enhancing the level of collaborative teaching, particularly where professional development is concerned. Collaborative teaching is a key contributor to student and school achievement, and it is also an area that CEI’s programming directly targets through the provision of a high-quality professional development program offered in a collaborative setting.

After working with CEI for several months, teachers reflected much more positively on their professional development experiences, reporting gains in the degree to which they: were sustained and coherently focused; provided sufficient time for considering new ideas; felt connected to the school’s improvement plan; and included opportunities to collaborate with colleagues. Notably, teachers at participating schools initially reacted to this question more negatively than their peers at other elementary schools. As the following graph demonstrates, those gaps were closed by the end of the school year.

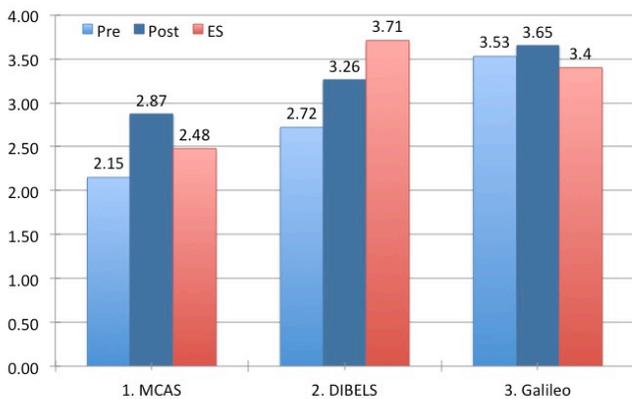
Overall, my professional development experiences this year have:



3. Impact on perceptions and use of assessment data

A major finding of this evaluation was that CEI appears to be impacting the perceptions and use of assessment data, because these factors changed positively between the pre- and post-participation surveys. Research links this output measure to improved student achievement, and it also points to the role of professional development in bolstering teachers' ability to use formative assessment data to enhance student performance.²

How valuable do you find the following types of assessment data?

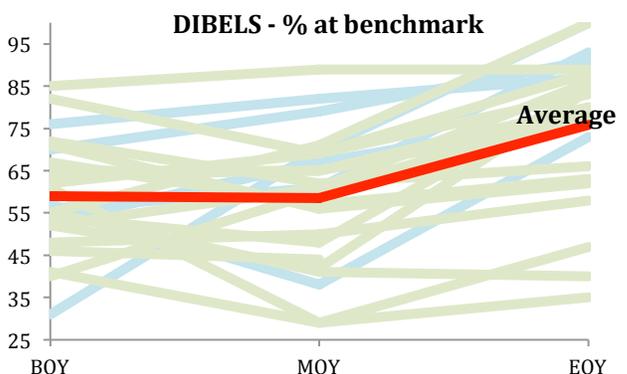
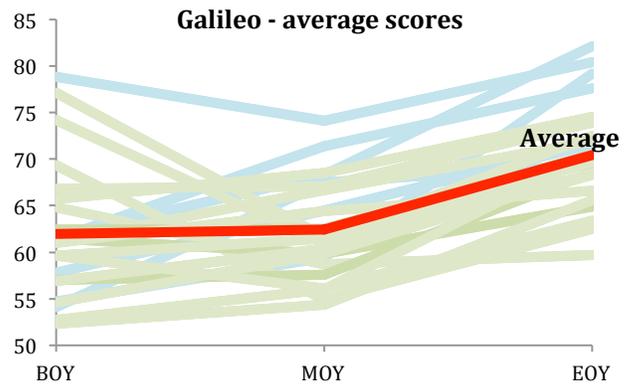


In the post-participation survey, teachers placed a higher value on assessment data than they did when they began working with CEI. According to the results, CEI-engaged teachers now review assessment data independently with more frequency, and report placing a higher value on MCAS, DIBELS, and Galileo scores when compared to their earlier responses.

4. Impact on student performance

If CEI succeeds in impacting teacher quality and collaboration—and the results of the pilot evaluation suggest that it is on track to achieve this short-term goal—the research on these factors indicates that positive impacts on student performance will be realized in the long-term. While the short duration of both CEI's programming and the Urban Initiative's evaluation limit the ability to reliably measure long-term gains, student-level data was analyzed to capture baseline data and look for trends indicative of future impact.

Indeed, CEI-engaged teachers recorded improvements—almost across the board—in student literacy as measured by Galileo and DIBELS between the middle and end of the 2013-14 school year. Though the absence of district-level data makes it difficult to interpret these gains, it is nevertheless noteworthy that participating teachers' Galileo scores rose by an average of 13 percent and the percentage of students who reached DIBELS benchmarks grew by 30 percent over the same period.³ These increases are illustrated in the following graphs.⁴



Next steps

CEI will be able to assert more confidently its impact after its program—and the Urban Initiative-designed evaluation plan—has been implemented with fidelity across an entire school year. Allowing for more time between surveys is likely to reflect changes more meaningfully, especially because teachers will have more time to implement CEI's program in their classrooms and identify the degree to which CEI influences their teaching and their students.

Obtaining thorough data from NBPS is also essential to future efforts to measure impact. Not only will it be important for NBPS to provide data directly to CEI at regular intervals so that CEI may adjust its programming in response, but it will also be necessary to compare data from CEI classrooms with that from non-participating teachers and students.

If CEI participants continue to make the gains reflected by this pilot evaluation and the program is expanded to reach more schools and teachers, this program stands to positively shape the New Bedford Public Schools' approach to technology-centered professional development, which may in turn shape the prospects of the city's students and schools.

Notes:

¹ Source: http://uei.uchicago.edu/sites/default/files/documents/5E_LiteratureReview_Research_vFINAL.pdf

² Meta-analysis of research linking teachers' use of data to student achievement can be found at: <http://standards.dpi.wi.gov/files/cal/pdf/principle3.pdf>.

³ This evaluation was not designed to measure the impact of CEI's efforts on MCAS performance (the test was administered just months after this program began), but those scores, at least at Campbell, are also trending upward and suggest that future evaluation efforts may link CEI's work to those gains.

⁴ Note: individual classroom scores are denoted by blue (Campbell) and green (Lincoln) lines; data points represent tests taken at the beginning (BOY), middle (MOY), and end (EOY) of the 2013-14 school year.