

Logic Model: DC Teacher Leadership Summit

Problem Statement: The Boston Public Schools lack an effective model for teachers to leverage technology in order to cultivate students' creative potential and connect them with a college and career pipeline that meets the needs of the local innovation economy.

Goal: Beginning at the middle school level, we seek to develop Divergent Learning into a replicable and sustainable model for teacher teams district-wide to use as a roadmap for:

building mutually beneficial relationships between schools and public and private stakeholders,

closing the achievement gap,

growing a base of human capital from within the Boston Public Schools.

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Rationale:

Our school systems must begin to plan for and build in pathways that provide flexibility within school design in order to have a greater impact on the achievement gap and simultaneously meet the needs of an ever-changing innovation economy in Greater Boston.

- 1) Middle school students are at an advantageous developmental stage for acquiring the habits of mind, behaviors, skills, and attitudes necessary for success in the innovation economy. Targeting middle school is essential because early adolescence is a critical time to maintain student engagement in academics.
- 2) Research shows that students are more engaged in school when they are asked to do inquiry-based and hands-on learning, when they feel that their personal interests and knowledge are valued and when they understand the practical application of what they are learning and how it connects to their future; this is especially true for African American boys.
- 3) Black and Latino teens are avid consumers of technology, and report that they are online even more than white teens.
- 4) Yet this interest in technology does not translate into future careers. Despite STEM undergraduate majors being among the most popular for African American males, their representation in science and engineering career fields is disproportionately low.
- 5) Other groups, such as women, are also underrepresented in innovation,

Inputs: common planning time for ID Teaching Team 3X weekly

Collaborative Interdisciplinary team of teachers experienced at working together who cultivate a professional learning community

supportive School Administration

chief innovation officer, BPS

Adobe Grant

Roxbury Innovation Center

Boston/Cambridge, MA is the 2nd largest innovation community in U.S. and has potential for vibrant and mutually beneficial partnerships

53 institutions of higher education in metro Boston region (Including MIT) offering academic and other support

Activities:

- Teacher externship
- Student externship
- Symposium
- Adobe Youth Voices
- coding classes
- maker space
- Advisory (teacher/student) board for Roxbury innovation center

Outputs:

1 month:

Create a Pitch Deck:

<http://apps.deck.in/docs/openWebDoc.do?docId=1076387>

Meeting with Kevin Wiant from Roxbury Innovation Center

Meeting with Barbara Deane-Williams (Senior Deputy Supt. of Operations Boston Public Schools and integral to teacher leadership in BPS)

Meet with Headmaster of our school

In process of completing a one week course in exploring pedagogy behind computer Science

Plan and schedule meetings with potential partners

Meet with Dr. Richard Stallman of the Free Software Foundation

3 month:

Outcomes:

Short Term: 1 year

- Increased partnerships with innovation sector
- clear pathway for students to engage in academic and hands-on work with technology
- students, teachers, and partners evangelizing the work in blogs and other digital writing and social media
- clear, discernable data to indicate increased presence of underserved populations involved in technology idea exchanges with teachers and community partners

Medium Term: 2 years

- evidence of other interdisciplinary teaching teams replicating our curricular model
- Increased partnerships with innovation sector

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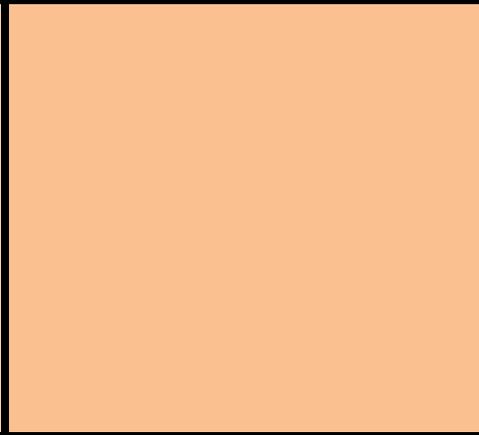
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| <p>STEM-related fields, and this also extends to obtaining venture capital for startup companies.</p> <p>6) Project-based math that is integrated with other subjects so that students understand the purpose of what they are learning and how it serves a higher need leads to higher achievement in math for girls and greater female interest in pursuing math-related career fields.</p> <p>7) Project-based math that is integrated with other subjects so that students understand the purpose of what they are learning and how it serves a higher need leads to higher achievement in math for girls and greater female interest in pursuing math-related career fields.</p> <p>8) In Boston, partnership opportunities abound with no formal programs linking the school district with the greater economic ecosystem. Furthermore, local high-tech companies are paying astronomical recruitment fees in order to compete for skilled workers when opportunities to develop indigenous talent are not being cultivated.</p> <p>9) Divergent Learning expectations similar to ours are already being implemented by forward-looking organizations and systems seeking to adapt to the demands of our ever-changing, globalized economy and the increasing need for interdisciplinary collaboration</p> | | | <p>Meet with James Stanton at MassCan</p> <p>Plan to evangelize our work further through Social Media, Blogging our ideas with Viva and National Board, etc, writing for the Boston Teacher’s Union paper</p> <p>Meet with Teacher’s Union</p> <p>Continue to develop and sustain partnerships</p> <p>Revise our Interdisciplinary curriculum to integrate and increase focus on Computer Science</p> <p>Lead our teaching teams through revised curriculum</p> <p>Present at NCTE</p> <p>Present at NEATE</p> <p>Fundraising research and discovery</p> <p>6 month:</p> <p>Create a website that begins to formalize our Interdisciplinary work and connect us to greater Boston Innovation Community</p> <p>Begin to work on teacher and student externships with innovation community in Boston</p> | <p>Long Term: Beyond 2 years</p> <ul style="list-style-type: none"> • Evidence of students continuing to work with technology and advanced computer programming classes as they enter high school • Evidence (Data) that achievement gap for minorities is closing within our school, particularly black and Latino boys • Evidence of increased GPA for all students • Evidence of prior students working within Greater Boston Innovation Community. |
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to solve the world's most pressing issues. BPS has the opportunity for thought leadership on the topic and a seat at the table in the local innovation community.



Further develop our profile and work within the Boston Public Schools.



Student Impact: (If..., then...)

- If we develop effective, collaborative interdisciplinary teams of teachers, then our collective practice will improve our ability to develop a more consistent, holistic and authentic learning experience for our students.
- If we provide internships for early adolescents at local high-tech companies, then we will disrupt the traditional expectation that this experience only belongs at the high school level, and our students will gain an understanding of prospective career paths and confidence and skills that transfer into academic success.
- If we provide paid internships for teachers at local high-tech companies, then our teachers will be better able to prepare our students for work experiences and will make deeper, more authentic connections with students based on a common understanding of and involvement in the Greater Boston innovation economy.
- If we cultivate mutually beneficial corporate-education partnerships, then we can elevate marginalized groups out of poverty and ready them for college and careers, empower women and people of color to gain employment in high-tech fields and achieve a much needed skilled and diverse workforce for our growing innovation economy.
- If teachers model innovation, then student will innovate.