

Session Title:

Sustainability of NSF-funded Science Education Fellowship: An MSP Noyce Master Teacher Supplement

MSP Project Name:

Boston Science Partnership

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Project Session**Strand 1****Summary:**

In June 2012, the Boston Science Partnership (BSP) thought it was saying goodbye to the Science Education Fellowship (SEF) program it had started with supplemental funding from Noyce to design a master-teacher program. However, the SEF program will continue for the next five years to support at least three more cohorts of Fellows through a scaling up model in the greater Boston area and a replication site in the greater Newark area with a new university partnership. This session will focus on how we received external funding, the elements of SEF that were attractive to the funder, and how the program is evolving in order to meet overcome the challenges of both scale-up and replication efforts.

Section 1: Questions framing the session:

1. How do you build a bridge between federal funding and private funding?
2. What type of evidence is convincing to funders to continue to support an existing program?
3. What are the challenges of starting a replication site and how to overcome those challenges?

Section 2: Conceptual framework:

Most projects end when the initial funding has run out. As of June 2012, it looked like the Boston Science Partnership had supported its last cohort of Science Education Fellows. However, we are happy to announce that we will be selecting our first cohort of 40 Wipro Science Education Fellows in May 2013, with 20 Fellows coming from the Greater Boston area and 20 coming from the Greater Newark area. This session will describe the success story of how the Science Education Fellowship has moved from being a local program for Boston Public Schools teachers that is supported with federal

NSF funds to scaling up to include four additional districts around Boston and a replication site in New Jersey through corporate funding.

The Science Education Fellowship was funded in 2008 as a Noyce MSP supplement. This original supplement allowed the BSP to design a master-teacher program called the Science Education Fellowship (SEF). The key elements of the SEF program involved selecting up to 24 K-12 teachers of science from all science disciplines and grade bands to be part of a cohort for one year.

Chart of Potential Fellows' disciplines and Grade level

	Biology	Chemistry	Physics	Earth Science
Elementary	x x	x x	x x	x x
Middle	x x	x x	x x	x x
High	x x	x x	x x	x x

During the Fellowship, Fellows participated in monthly meetings that focused on adult learning, classroom instruction, and reflective practice; used the BSP Collaborative Coaching and Learning in Science model in vertical (subject) teams and horizontal (grade band) teams to observe and reflect on each other's instruction; and carried out a year-long individual professional development plan. Through external evaluation, it was determined that the SEF program caused deep, meaningful, and long-lasting change in Fellows, their instruction, and in their leadership skills.

With this new opportunity, the SEF program will now be offered in ten school districts—including Boston still—in two states, and it will be supported by an additional university partner in New Jersey. Starting this program in nine districts that we have not worked with has presented new challenges and resulted in an evolution of the program to meet the new needs. The biggest shift has been to move this program from a one-year fellowship to a two-year fellowship and the addition of creating a PLC for the district science-coordinators in each site. We welcome feedback from other MSPs that have had similar success and look forward to sharing our success in hope of having other projects become sustainable beyond NSF funding.

Section 3: Explanatory framework:

The BSP would like to share its lessons learned to move from a dying program to a sustainable program. Lessons learned include how to make the most of opportunities that present themselves, the timeline it took for SEF to go from a proposed idea to a sustainable project, and the benefits and challenges involved with scaling up.

The SEF program will continue to provide deep professional development to experienced teachers of science in ten school districts over the next five years through private funding that was secured through an international IT corporation. The pathway to securing this funding started two years ago over a lunch between co-PI Arthur Eisenkraft and a member of the corporation who has a relationship with a mutual colleague. The corporate executive became interested in the general work that was occurring through the BSP and other programs at the Center of Science and Math in Context (COSMIC). Over

the next year, the corporation asked for Dr. Eisenkraft to give brief descriptions of programs that we were working on, including SEF and our AP Bridge program. Two years later, in June 2012, Dr. Eisenkraft was asked to submit a full proposal and budget to scale-up the Science Education Fellowship program. The corporation added some feedback about elements that they would like to see incorporated, such as a site in New Jersey and the inclusion of corporate employees as volunteers in the classroom, and the funding was secured. One of key lessons learned through this process is that the funder chose a project that was aligned with other social programs that they currently support. While this is a new program for them, it is not outside of their general interests so they are invested in seeing it work and allowing us to do what we have showed to have worked already.

It is now up to UMass Boston to maintain the integrity of the program, while navigating new relationships with the funder, a partner university, and nine new school districts. As a first step, we have found a wonderful partner university that shares the same core values as the SEF program and already has established relationships with districts in the area. Second, we have recruited school districts from the greater Boston area who have demonstrated readiness for this type of program in their district. Lastly, we are examining the core elements of the SEF program as a group to determine where we can improve and learn from our new partners as we work with our first cohort in September.

Section 4: Discussion:

This session will focus on how to maintain elements of the work of an MSP beyond NSF funding. This discussion is relevant to all projects that have had demonstrable success and are looking to keep the work going once their grant ends. We hope this session inspires others to look for external funding opportunities and that sustainability is a realistic option.

Section 5: How will you structure this session? What is your plan for participant interaction?

This session will begin with an introduction to the SEF program and a description of where the SEF program currently is in its scaling up phase. We will then divide the audience into small groups to discuss the three questions we are using to structure this session: how to build relationships with potential funders, how to present evidence of success to potential funders, and how to deal with challenges through a vignette structure. Each group will then report using examples from their own projects on how to handle each question as a project works toward sustainability.