

Expanding Potential 2015-6 Seed Project Awardee Final Report

The purpose of this final report is for readers to understand the motivations, processes, and outcomes for the seed project awardee's programming in order to sustain and scale these efforts.

Please outline your project. When responding, take into consideration if someone wanted to reproduce your program is reading this answer.

Our project explores the use of the *PopUp Museum* as a medium for engaging both students and the public in the topics affecting students in STEM. The *PopUp Museum* is created through collaboration with participants themselves that interact with exhibits in the museum based on a theme. This past year, we (Women in Science and Engineering at UC Santa Cruz) sponsored two *PopUp Museums* that explored several important topics faced by many students in STEM. First, we explored the theme of "failure," a stigma that many students face and one that can drastically shape a student's path. For our "failure" exhibit, visitors were given notecards and pens and provided an opportunity to "share a failure you are most proud of." Visitors were able to both read other participant submissions while also submitting their own failure story. We also explored the theme of "stereotype threat" via an interactive game, where visitors guessed the profession of a person based on a photograph. In addition to these themes, visitors were also given the opportunity to participate in more general STEM-related themes – Scikus (write your own science haiku), Women In STEM (share your thoughts/experiences), and We Periodically do Art (draw your favorite element from the Periodic Table of Elements). All submissions were documented in a [Tumblr](#). The student submissions from each of the *PopUp Museum* themes indicated that many students share similar experiences and challenges in STEM. The *PopUp Museum* thus provides an important checkpoint for both self-reflection and community awareness of STEM-related issues.

What were your initial goals for your program?

To create a long-term and far-reaching multi-media project that recognizes diversity and promotes the success of students/people in STEM.

How have your goals changed? What motivated these changes?

We started with grand ideas of creating a large-scale multi-media project that included video and blog posts about these issues that could be widely disseminated. However, we received advice from people who work on museum exhibits that trying to coordinate a large multi-media project required a lot of effort by participants, and therefore had high chances of failing. We were advised instead to do very easy, fun, interactive exhibits that required little effort but that were still engaging, informative, and had the potential to stimulate discussion. Thus, we changed the structure of our *PopUp* entirely to be focused on user experience rather than our idea of the perfect product.

How does your program address diversity and inclusion issues? How is your program enacting change?

We specifically chose to represent several diverse themes within our *PopUp Museums* that would address issues pertaining to students in STEM. For example, the theme of "Stereotype Threat" directly addresses an issue of diversity. The use of *PopUp Museums* helps to create awareness and discussion regarding topics affecting underrepresented and all students in STEM in a public space.

What partnerships were necessary to successfully launch this project?

We were able to gain the support and sponsorship of over 20 local businesses in Santa Cruz that donated items for a raffle that became part of our *PopUp Museum*. The raffle was used as an incentive to promote participation in our *PopUp* (each participant received a raffle ticket for each exhibit submission). We also worked with a museum curator from California Academy of Sciences to receive advice on how to execute our museum.

How can your program be scaled and applied to different institutions?

The *PopUp Museum* is an idea that could easily be formatted to promote goals and themes of any group or organization. To organize a *PopUp Museum*, we provide these guidelines:

1. Identify project goals.

What are the greater goals of holding a PopUp Museum?

e.g. To promote and support diversity in STEM.

2. Identify potential partnerships with other organizations/individuals.

e.g. Local art museum, etc.

3. Identify *PopUp Museum* theme(s):

What theme(s) do you want to represent at your PopUp Museum that address your project goals?

e.g. Imposter Syndrome

4. Identify how each theme will be executed

*Advice on exhibit execution from a museum curator:

(1) Avoid the lecture style of learning and make the exhibit hands-on.

(2) Don't make anything too complicated (no exhibits that require a lot of instruction or effort to complete), rather, make the exhibit intuitive.

(3) People are animals! They are attracted to things that are shiny, animated (things that move), and are interactive (pulling levers, pushing buttons, etc.).

5. Make a list of materials/structures/personnel that are needed to execute the *PopUp Museum*

e.g. Materials: poster board, pens, tacks, rope, etc.; Structures: Tent, tables, etc.; Personnel: 1 greeter, 4 exhibit managers (1 person per exhibit for 4 exhibits), etc.

6. Identify anticipated products from this event.

e.g. Twitter feed, Facebook posts, Instagram, etc.

7. Identify how you want to document the event to achieve desired products (from number 6).

e.g. Photograph each exhibit submission with personal smart phone, set up twitter feed, etc.

8. Identify how you will evaluate the success of your event.

e.g. Collect submissions and count number of submissions in order to determine which exhibits worked or didn't work, provide a survey, etc.

How did the seed project funding help your project?

It allowed us to purchase museum supplies for the event.

Describe how feedback from the Expanding Potential Workshop helped inform your project.

The Expanding Potential Workshop brought together many groups and individuals that work on promoting diversity in STEM. It was extremely helpful to be able to see the diversity of projects that all represented various strategies for promoting STEM diversity. Many of the ideas inspired the development of our own project. For example, one group explores the use of data to examine issues in STEM diversity. This was an innovative approach that incorporates techniques of scientific inquiry to allow students to use data to explore issues in STEM diversity. Our own project, *PopUp Museums*, could also be used to facilitate student projects that collect data to explore issues in STEM. The Expanding Potential Workshop gave us the opportunity to network with other organizations that have interest in using *PopUp Museums*. We were able to explore with these groups various creative ways to transform their organization's goals into a *PopUp Museum*.

What advice would you give to someone initiating this project at another institution?

- You can get a lot of materials donated, so the event can be done with little to no cost.
- Use an adaptive management framework: start small, try it, see what worked/didn't work, revise, scale up.
- To encourage participation, hold a raffle. You can get gift certificates and products donated from local businesses. Provide the business with a letter on company/organization letterhead that explains your event and what you are asking for. Include your contact information and your organization's tax ID number for them to write off on their taxes. Most businesses have an employee that handles donations, but ask to talk to the manager. Give businesses at least one month. See example letter:



WOMEN IN SCIENCE AND ENGINEERING UNIVERSITY OF CALIFORNIA, SANTA CRUZ

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Santa Barbara • Santa Cruz

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Dear Woodstocks Management,

Women in Science and Engineering (WiSE) at UC Santa Cruz is a graduate student run organization that welcomes the participation of undergraduate and graduate students, faculty, staff, and professionals in the Science, Technology, Engineering, and Mathematics (STEM) fields. The overarching goal of WiSE is to advance women in the STEM fields both in percentage and position, in the face of historical, present, and future challenges. As part of the UCSC Downtown Fall Fair happening on October 25, 2015 WiSE will be hosting a booth featuring an interactive *PopUp Museum* dedicated to raising awareness about the experiences of women in STEM.

WiSE is currently seeking Santa Cruz businesses to sponsor raffle prizes for participants at this event. We are asking for small, tax-deductible donations, anywhere from \$25-100 in the form of gift cards or merchandise. In exchange, WiSE will provide advertising by displaying your business's name as one of our booth sponsors in addition to utilizing postcards featuring your business's name and logo as a medium for artwork submissions at our interactive exhibits. We will also publish sponsorship on our Tumblr, Instagram, Facebook, and any other forms of public media generated by this event.

If you have any questions regarding this request, please don't hesitate to contact me by phone or email. Thank you for your consideration of our request. WiSE greatly appreciates your support!

Sincerely,

Danica Roth

Vice President
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Please summarize any additional results that are not mentioned in the above answers.

None.

Quote/testimonial

The Women in Science and Engineering (WiSE) at UC Santa Cruz runs a number of programs that promote student diversity in STEM. Through the Expanding Potential Seed Project Grant, we were able to develop a new program within WiSE utilizing *PopUp Museums* as a medium for

engaging the public in issues affecting women and students in STEM through art. As a member of the Expanding Potential Seed program, we were able to incubate and grow our ideas within a unique community of other awardees represented by talented minds armed with creative solutions for promoting diversity in STEM. Through the support of this program, we successfully launched two *PopUp Museums*. We plan to capitalize on the momentum we gained from our experiences by expanding our efforts to reach more locations and demographics. This experience has fundamentally helped WiSE to reach a new level of community involvement, and to network with organizations working under the common purpose of promoting diversity in STEM.