

Exploring Culturally Sustaining STEM Partnerships: A Year-Long Workshop Series

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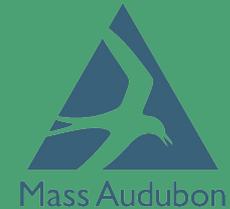
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Project Overview

Creating Sustainable Community, Museum, and University Collaborations

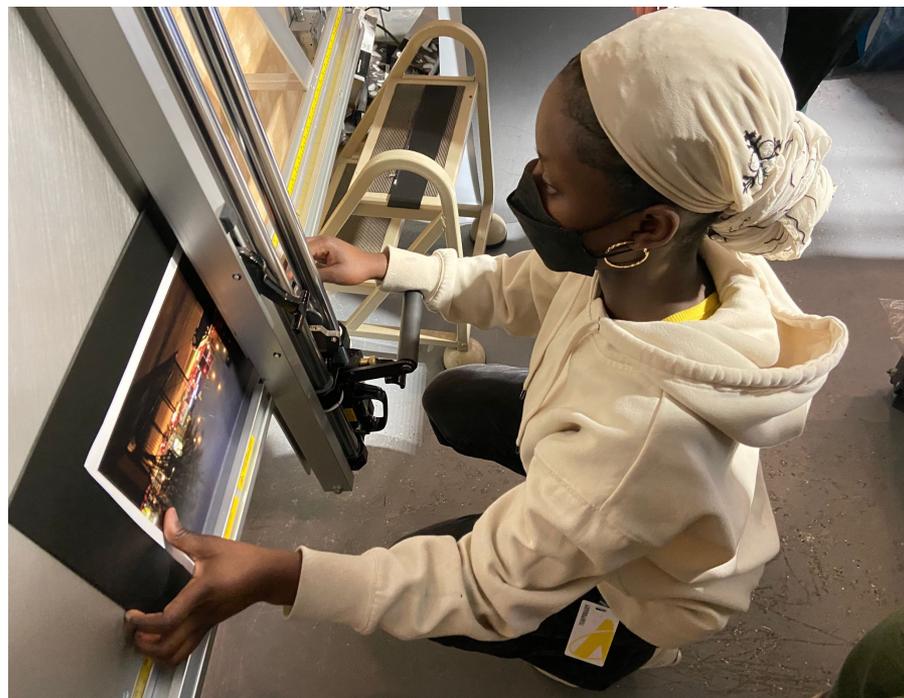


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Project Overview

- Co-develop and initiate culturally sustaining informal STEM programs with young people
- Workshop series for museum education practitioners, current and former STEM museum program participants, & education researchers

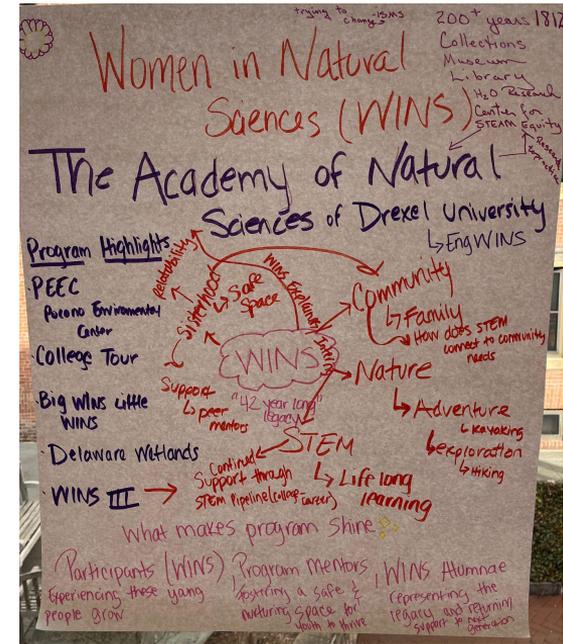


Project Goals

1. Build and foster ethical relationships
2. Create a collaborative space to share and explore culturally sustaining STEM youth programs
3. Foundation for continuing partner relationships after this project

Project Activities

- Weekly research team meetings
- Recruit and onboard current and former museum program participants
- Monthly virtual workshops
- Two hybrid workshops in Chicago & Boston
- Co-develop project ideas for future collaboration



Organizer/ Researcher Perspective

Organizer/Researcher Perspective

- Informal Spaces but not Museums
- Interest in science centers and museums as colonial projects
- Intro to Design Class



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ORIGINAL ARTICLE

The historical context of science and education at the American Museum of Natural History

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Springer Science+Business Media B.V. 2007

Abstract In this article I critically examine the historical context of science education in a natural history museum and its relevance to using museum resources to teach science today. I begin with a discussion of the historical display of race and its relevance to my practice of using the Museum's resources to teach science. I continue with a critical review of the history of the education department in a natural history museum to demonstrate the historical constitution of current practices of the education department. Using sociocultural constructs around identity formation and transformation, I move to the present with a case study of a teacher who transforms the structure of science education in her classroom and school as a result of her identity transformation and association with a museum-based professional education program.

Keywords Museum education · Museum history · Urban education · Teacher education · Identity

Introduction

You have little idea in walking through these halls what labor they have involved, what sacrifices men have made and are making for them today in all parts of the world, how much the workers in this Museum are imbued with what may be called the spirit of the institution—the desire to extend the call and vision of nature (Osborne, 1927a, p. 271).

Recent scholarship has focused on the role that identity plays in the learning that happens during a museum visit—identity as a motivation for visiting museums and determining how people interact with and learn from exhibits. Rounds (2006) views the museum as a

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Organizer/Researcher Perspective



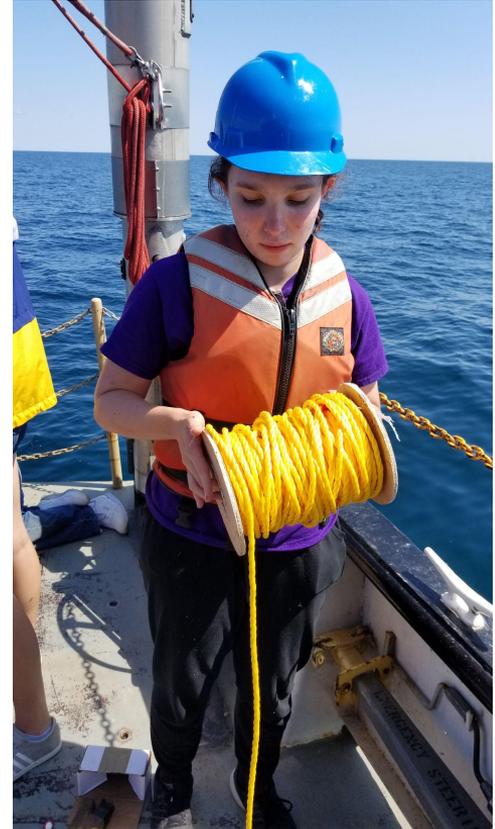
Confronting Adulthood

- Providing space for affinity groups
- Travel hassle
- Goals for partnership and partnership around what in tension
- It has to do with the people, but what about the institutions?

Teen Program Participant Perspective

My Program Experiences

- Involved at the Adler Planetarium since early high school:
 - Engineering summer program
 - High school internship
 - Light pollution research volunteer
- Currently in college
 - Undergrad research internship
 - Summer counselor for Adler's youth programs



What I Learned During the Project

- Learned what culturally sustaining pedagogy is and why it's important
- “Behind the scenes” view of qualitative research
- Designing research questions
- Learning from research but also each other

My Experience on the Project

- Drew on my past experiences to offer feedback
- Made great connections with people of different ages, disciplines, identities, and regions
- Felt like I was listened to and my views were valued
- Programs from different institutions had many similarities and some differences
-> sharing of ideas seemed mutually beneficial

Educator Perspective

Elements of Success

- Thought partnering and sharing between institutions and across age lines
- Deliberate effort towards relationship and culture building
- Opportunities for professional development both for youth and for participating staff



Breakout Groups Check-In



- Your name
- How you are feeling (happy, sad, mad, ashamed, tired)
- Think about your time as a young person...what experiences working with adults stand out to you?
 - Pick one story/summary of stories to share for your group

The graphic features a central illustration of a diverse group of people of various ages and ethnicities holding hands in a circle, symbolizing community and support. The background is a light, textured grey with soft blue and pink washes. The title 'Breakout Groups Check-In' is written in a teal, cursive font at the top. To the right of the illustration is a list of three bullet points, with the third point having a sub-bullet point.

Elements of Surprise

- Learning how to write a research proposal was a growth experience both for youth and staff!
- Teen participation in the research development process revealed deep empathy and an effective understanding of the scientific process
- The hope coming out of this project is to find ways for youth to participate in conducting and publishing research



Elements of Growth

- Moving forward, the group is working to develop research proposals that our home organizations would need to recommit to
- Need for improved hybrid meeting technology to accommodate for multiple locations
- Considerations for continuity of youth participation during college years



Thank you!
