



Examining Contextual Factors Influencing the Implementation of Projects Designed to Improve Cultural Diversity in Informal STEM Programming (ECF)

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This project addresses gaps in Equity, Diversity, and Inclusion (EDI) in STEM education by examining contextual factors that influence implementation and practice of STEM programs in underserved communities. Recently many informal STEM organizations have made progress with culturally responsive programming, however, implementing effective STEM programs in underserved communities remains fraught with challenges. Based on our research, we will create a set of recommendations about effective methods of improving EDI at informal STEM institutions and Community Based Organizations. We also will develop a vibrant Community of Practice (CoP) focused on EDI, hosted and facilitated by the Association of Science-Technology Centers.

Research Approach

- Facilitate and document understanding of organizations and communities participating in the research
- Identify and measure contextual factors that affect or are relevant to implementation in the participating communities
- Support community-based participants in conducting their own research
- Reflect on the implementation process and what has worked, what hasn't worked, and what adaptations have been made
- Collectively make meaning of results and provide recommendations to the field

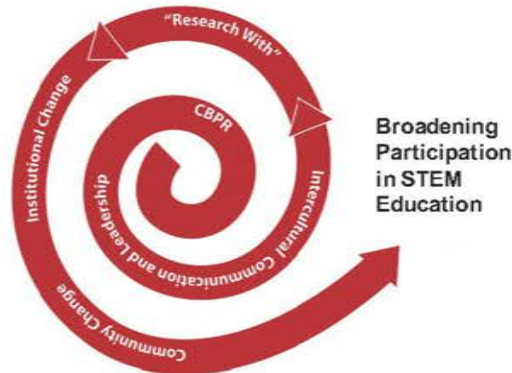
Community Based Participatory Research

"... at the end of the program or grant when the institution pulls out, is the community left in shambles ...?"

"I think it's very important that we know who the research end product will go to. What kind of effect and impact will this have on the communities?"

"Our concern is that this is used for grant material. It feels that they're ripping us off, and then it leads to a question of trust. We are weary and wary of being used."

Contextual Factors



Adapted from Israel et al. 2003

Audiences

Our work helps professional audiences, including 1) citizen science practitioners, 2) project developers, and 3) ISE researchers to better understand key factors that lead to success in project implementation of informal STEM programming in underserved communities.

In addition, our findings will help Community Based Organization leaders and practitioners in underserved communities better understand how to work with informal science education institutions in STEM programming.



ECF meeting at Cornell Lab of Ornithology



Understanding contextual factors

Challenges

- Gaining consensus on community-led research questions and sustaining trust among participants.
- Capturing important data outside the research framework to better understand key contextual factors (i.e., online platform discussions, phone conversations, joint presentations).
- Eliciting meaningful interactions among Community Based Organizations and informal science professionals in emerging Network Improvement Community without interfering with contextual research.



Celebrate Urban Birds event at WorldBeat Center



Celebrate Urban Birds event with Latino Outdoors



Youth workshop at Cornell Lab of Ornithology