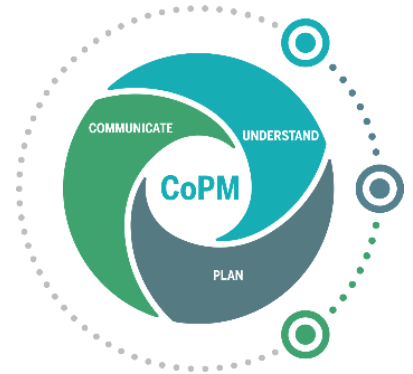


Collaborative Project Management (CoPM) for Multi-Institutional Partnerships

Background on CoPM

Broadening participation in STEM is a national goal, one that no single organization can accomplish alone. Many funders are shifting from single-project support to a collective-impact approach that necessitates a focus on the relationships and successful collaboration among organizations (NSF, 2018). Informal STEM Institutions (ISIs) are developing innovative partnerships with school districts, academic institutions, community-based organizations, and industry to bring new informal-learning opportunities to underserved populations in their communities (e.g. Montano, 2015; Stylinski et al., 2018; McCarthy and Herring, 2015). The collaboration and teamwork required to bring broadening participation goals to reality, however, are often complex, with multiple entities involved. Words like “collaboration,” “partnership,” and “team” are so commonly used that the shared understanding of their meaning is assumed. But does that assumption hold true? Is the same meaning understood by all? What does it mean to be a partner? What expectations can collaborators realistically have of each other? What behaviors and inclusion are partners committing to when they embark on a partnership or collaboration? Most importantly, do practitioners, researchers, community groups, and stakeholders, coming from different backgrounds and perspectives, have the same understanding?



Few institutions have the human resources capacity to provide the professional development to equip staff with the cultural competency, leadership, and project management expertise needed to develop collaborations that address this growing need. And yet, this expertise is critical for the success of projects designed to meet the goal of broadening participation (Bonney et al., 2018).

Some of the common challenges and issues that museum-university-community partnerships struggle with are:

- **Learning about each other’s contexts, constraints, supports, working conditions, and different skill sets.**
- **Understanding differences in motivation for implementing the project; crucial terminology and theory, a lack of teams having more productive conversations about both the theoretical underpinnings and practical implications of the project.**
- **Different measures of success as well as different efforts and avenues for dissemination such as presentations vs publications.**

Critical for their success as a partnership team is in agreeing on how to:

- **Achieve mutual goals through understanding and planning**
- **Avoid or quickly resolve issues that could threaten project goals**
- **Avoid or quickly resolve “aggravations” that make a project harder than needed**
- **Build strong and lasting personal and organizational relationships of direct value for scaling, replicating, and expanding programs and partnerships**

CoPM emphasizes building a foundation for a strong collaboration by beginning with creating a strong core team and project start through a practical step-by-step “team alignment” approach. This initial alignment enables a team with specialist expertise from multiple organizations to come together and work toward a shared goal. The CoPM process enables the conversations that 1. Build understanding, 2. Create a well thought out Plan, and 3. Generate agreements for effective team communication throughout the project.

CoPM does not attempt to merge or change organizational cultures, but rather to *coordinate* project activities such that the teams can work together well and ultimately meet their goals.

The Association of Science and Technology Centers, in collaboration with the ICS Group, invited a diverse group of institutional partnerships, all striving to broaden participation in STEM, to an intensive Collaborative Project Management (CoPM) Institute funded by the National Science Foundation.

A CoPM Playbook was developed based on frameworks and techniques used in industry, with exercises, templates, and guidance for using collaborative project management with a partnership team.

As documented in the project evaluation available on informal.science.org, participants rated their experience in the Institute as overwhelmingly positive, especially around: 1) access to new tools, 2) new insights on communications, and 3) new paradigms for partnership and relationship development.

We hope to expand this pilot effort with future funding. The COVID-19 pandemic has raised questions about the future delivery of programs and learning. CoPM already contains virtual learning as well as in-person components; the team will review our ability to strengthen delivery through virtual learning platforms.

References

Bonney, R., Garibay, C., and Glass, M. 2014. Examining Contextual Factors Influencing the Implementation of Projects Designed to Improve Cultural Diversity in Informal Science Education Programming (NSF AISL 1422022 and 1421788). NSF STEM for All Video Showcase “*Community Perspectives: Transforming Science to Benefit ALL*” Available at <https://stemforall2018.videohall.com/presentations/1127>

McCarthy, C. and Herring, B. 2015. *Collaboration guide for museums working with community youth-serving organizations*. Retrieved from: <http://nisenet.org>

Montano, P. 2015. Reviewing A Year Of ISE-University Partnerships. Informal.science.org Available at <https://www.informal.science.org/news-views/reviewing-year-ise-university-partnerships>

National Science Foundation. 2018. *NSF INCLUDES: Report to the Nation*. Available at https://www.nsf.gov/news/special_reports/nsfincludes/pdfs/INCLUDES_report_to_the_Nation.pdf

Stylinski, C., Storksdieck, M., Canzoneri, N., Klein, E. and Johnson, A. 2018. Impacts of a comprehensive public engagement training and support program on scientists’ outreach attitudes and practices, *International Journal of Science Education, Part B*, 8:4, 340-354

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This material is based upon work supported by the National Science Foundation under Grant DRL1836963. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.