



UC SANTA CRUZ



Successful scaffolding strategies in urban museums: Research and practice on mediated scientific conversations with families and museum educators

Status: Principal Investigators

Funder: National Science Foundation

Institutions: Museum of Science & Industry (MOSI), Tampa, Florida, in collaboration with the University of California, Santa Cruz

Principal Investigator: Judith Lombana Ed.D. MOSI (813) 987-63310

Co-PI: Doris Ash, University of California Santa Cruz

The proposed project, *Successful scaffolding strategies in urban museums: Research and practice on mediated scientific conversations with families and museum educators*, seeks simultaneously to advance existing research on learning in informal settings and to improve museum educator practice in mediating understanding with families, in an urban museum.

The collaboration between the Museum of Science & Industry (MOSI) and the University of California Santa Cruz (UCSC) will: (1) conduct basic research on best mediational practices in museums, focusing on scaffolding; (2) translate research results to museum educators'¹ teaching practices as they guide families in museum-based science activities; and (3) work specifically and centrally with culturally and linguistically diverse urban populations currently underserved by informal institutions.

The three underlying research questions are:

1. What are several underlying characteristics of successful and unsuccessful strategies for scaffolding understandings of collaborative groups while interacting and talking at life science based exhibits?
2. How can the strategies for scaffolding understandings of collaborative groups be best translated into teaching practices in museums using teacher research as the focus?
3. Can these scaffolding strategies be disseminated beyond MOSI in a published and replicable model for other informal learning centers?

By intertwining demonstrated and effective scaffolding research and practice with populations typically left out of informal education research, we anticipate a significant impact in:

- Advancing current understanding of a new area of informal learning research centering on scaffolding practices;
- Redefining scaffolded teaching practice with museum educator teacher researchers;
- Creating a model for conducting collaborative research with school, families and students typically not included in museum research and evaluation;
- Contributing to overall research on collaborative sense-making conversations in museums;
- Increasing the ability of museum teachers who interact with the public, their supervisors and trainers to promote self-directed learning; and creating a model for national dissemination.

Once the researched strategies and methodologies for identifying those strategies are documented, researchers can efficiently add to the body of understandings. This project will have broad implications for all informal learning, no matter the location.
