

SHARING SCIENCE WORKSHOP & PRACTICUM



Developed by the Strategic Projects Group at the Museum of Science.
Workshop guide and materials freely distributed by the NISE Network.

http://www.nisenet.org/catalog/tools_guides/sharing_science_workshop_practicum

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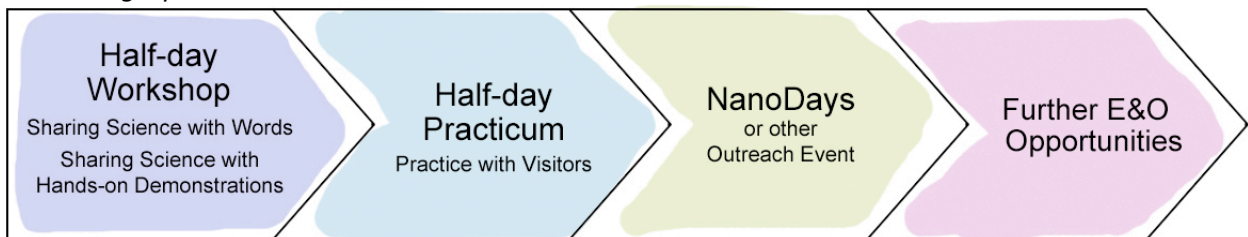
BASICS: This is a lively half-day workshop for early-career researchers, followed by a half-day guided practicum working with museum visitors. Participants learn and practice oral science communication skills and inquiry-based education skills using well-vetted hands-on demonstrations. Participants are invited back to help at special outreach events, like NanoDays.

GOALS for Participants

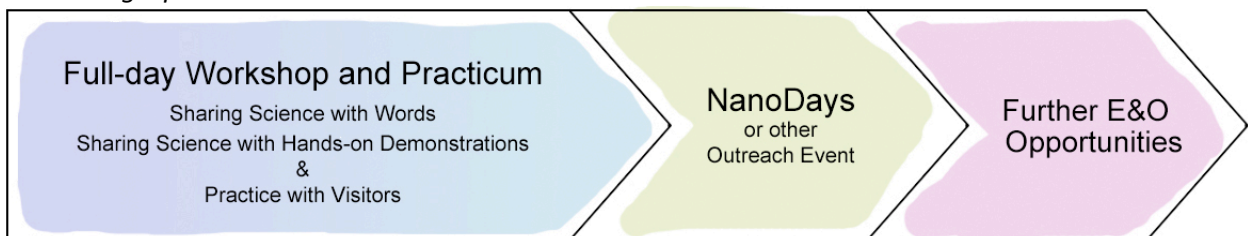
- Enhance their oral science communication skills.
- Engage their interest in education and outreach.
- Prepare them for providing effective and rewarding education outreach experiences.

STRUCTURE:

Scheduling Option One



Scheduling Option Two



When the Workshop and Practicum occur on separate days, as in Option One above, they occur in four-hour blocks, generally starting each with a brief lunch mid-day. (The late start and early lunch seems to appeal to many graduate students. When the Workshop and Practicum are condensed and combined into a single day, they comprise a seven-hour day, including a lunch break.

OVER >

CONTENT AREAS: Contextualizing research with aims and societal implications; targeting messages for different audiences; engaging attention; oral presentation skills; constructive feedback skills; inquiry-based learning; making use of hands-on demonstrations; working with museum visitors, encouraging discussion.

STRATEGIES: Discussion; skits; role-play; practice in small groups; reflection and feedback; practice with museum visitors.

TARGET AUDIENCE: Graduate students and post-docs from partnering university-based research centers. (A short version of the workshop, concentrating on oral science communication skills, is provided for early-career researchers in NSF ADVANCE programs.)

RECRUITMENT: Faculty partners can either assign students to attend, or give them the option. The university either contracts with the Museum for the Workshop & Practicum, or the cost is included in an education outreach sub-award with a research center. Generally students look forward to attending.

COMMITMENT: Participants commit to attending the Workshop & Practicum only; however, they will be invited back to practice their skills at one or more outreach events. Faculty may require further outreach efforts.

FACILITATORS: Museum staff with excellent science communication, inquiry-based learning, and workshop facilitation skills; aided by faculty and former participants coached in the process, serving as small-group facilitators.

PUBLIC ENGAGEMENT PLATFORMS: Museum events; K-12 and afterschool outreach; social events; job interviews; daily life.

EVALUATION FINDINGS: The Donahue Institute for Research and Evaluation conducted studies of Sharing Science in 2009* and 2011, and concluded that participants found the workshops useful and enjoyable; they reported increased confidence and skill in engaging visitors with hands-on demonstrations and conversations about science; and they felt motivated to get more involved in education outreach. Specifically (n=52),

- 89% of participants rated the workshop as very or extremely useful.
- Participants agreed that as a result of the workshops:
 - improving their science communication skills became a greater priority (89%)
 - they had a better understanding of the purposes of education outreach (96%)
 - they felt more confident engaging people with science demonstrations (93%)
 - they were more motivated to get involved in education outreach (90%)
 - they felt better equipped to explain their research to non-scientists (90%) and children (83%)
- All participants reported that the Workshop had helped prepare them for the Practicum, and that they had learned a lot about engaging visitors with hands-on demonstrations.
- All participants in the Practicum day reported that they had a good time and enjoyed working with visitors.

*http://www.nisenet.org/catalog/evaluation/sharing_science_workshops_graduate_students_fall_2009