
Monday, September 21st - Today’s presenters are:
Liz Kollmann from the Museum of Science, Boston
Liz Rosino from the Oregon Museum of Science and Industry (OMSI)
Gina Svarovsky from the University of Notre Dame

As we wait to get started with today’s discussion, please:

Introduce yourself! Type your name and institution into the chat box.
Call into the phone line (optional) at (877) 898-0037 (if using the phone line please make sure to mute your phone when not talking and also your computer’s microphone).
Questions? Feel free to type your questions or comments into the chat box at any time.

Today’s discussion will be recorded and shared on nisenet.org at:
http://nisenet.org/events/online-workshop

This presentation is based on work supported by the National Science Foundation under Grant No. 0940143. Any opinions, findings, and conclusions or recommendations expressed in this presentation are those of the author(s) and do not necessarily reflect the views of the Foundation.
Nanoscale Informal Science Education Network

The NISE Net is a national community of researchers and informal science educators dedicated to fostering public awareness, engagement, and understanding of nanoscale science, engineering, and technology.
NISE Network Logic Model

**Inputs**
- NISE Network
  - ISE organizations
  - Research centers

**Outputs**
- Network community
  - partnerships
  - practices and knowledge
  - resources and materials
  - workshops and training

- Educational products
  - programs
  - exhibits
  - media
  - tools and guides

**Outcomes**
- Increase capacity in the field to engage the public in nano
- Engage the public, increasing awareness and understanding of nano
Unique Characteristics of NISE Net

- Size
- Timeline
- Content
- Open-source philosophy
Unique Characteristics of NISE Net

- Size
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NISE Net Timeline

Years 1-5: (2005-2010)
• Building the network

Years 6-10: (2010-2015)
• Engaging the public through the network
Unique Characteristics of NISE Net

- Size
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NISE Net Content
Unique Characteristics of NISE Net

- Size
- Timeline
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NISE Net Open-Source Philosophy
Brown Bag Agenda

• Presentations
  o Estimating project reach
  o Collecting data at one-day events
  o Creating multi-stakeholder surveys

• Questions & answers
When methods meet the real world...

Poll #1: Imagine...
When methods meet the real world...

• Choosing and tailoring methods for a specific study can be overwhelming and challenging.

• Our goals for today:
  • Outline a process
  • Provide you with examples
  • Give you a place to start
A Method to Applying Your Methods

1. Define the problem
2. Define the objective
3. Seek information
4. Brainstorm and weigh possible solutions
5. Develop and implement a plan
6. Reflect and improve
NanoDays™

The Biggest Event for the Smallest Science!
NanoDays in 2014 and 2015

- 250+ unique events
- NanoDays kits were all the same; customization always encouraged
- Public Impacts to explore:
  - Reach
  - Learning
How many people are we actually reaching?
1. Define the problem:

- NISE Net materials are used to engage the public in various ways across the nation

- We needed to know more about this reach
  - NSF & reporting
  - NISE Net leadership
2. Define the objective:

- Estimate the number of people reached by NISE Net offerings
- Avoid over-estimation
3. Seek information:

Potential challenges and important considerations:

• Duplicated vs. Unduplicated
Unduplicated Count

\[= 1\]

\[= 3\]

Duplicated Count

Adapted from NSF Online Project Monitoring System
3. Seek information:

Potential challenges and important considerations:

• Duplicated vs. Unduplicated

• What do we know about…
  • last year’s event?
  • the types of activities?
  • our own events?
3. Seek information:

What resources are available?

- Network Partners
4. Brainstorm and weigh possible solutions:

• Ways to count
• How much can we ask of our partners?
• Strategic sampling
5. Develop and implement a plan:

*NanoDays*

- Sample sites: Determined # of people reached by each activity

- All sites reporting: Asked which activities included in each NanoDays

- All non-reporting sites: Applied median of the reporting sites based on institution size and type
6. Reflect and improve:

- It’s better than gate revenue…but still an estimation
- Some types of estimations are easier to convey
- Estimation factors used to update reach numbers in 2014
Exploring Learning

So much awesomeness, so little time...
1. Define the problem:

- 250+ unique events…
- What does public learning look like at a NanoDays event?
- Need for high-volume, simultaneous data collection
2. Define the objective:

- Explore public learning at NanoDays events
- Representative sample
- Optimize event-day data collection
Potential challenges and important considerations:

• What data did we already have?

• Breadth vs. depth

• Who is considered “public”? 

3. Seek information:
What resources are available?

• Evaluation team

• Network Partners

• Previously collected data and analysis
4. Brainstorm and weigh possible solutions:

- Focus sample on “mature” NanoDays events
- Leverage resources and deploying staff strategically
- Explore two public audiences through different data collection techniques
5. Develop and implement a plan:

- Data collection sites identified

- Protocols developed & piloted (3-person teams, paper survey, different and specific roles)

- Online survey for volunteers (no paper)
6. Reflect and improve:

- Importance of sampling of NanoDays event sites
- Analysis in aggregate only – not by site
- More depth to be mined in Volunteer study data
Let’s Pause for Questions!

What questions do you have?
Surveying partners... but how often?
Poll #2
Poll #3
1. Define the problem:

Respondent Fatigue
2. Define the objective:

• Reduce and consolidate requests

• Stakeholders still get the data they need
3. Seek information:

Potential challenges and important considerations:

- Timelines
- Stakeholder diversity
- Best methods?
- Coordination?
- Data priority?
3. Seek information:

What resources are available?
4. Brainstorm and weigh possible solutions:

- Improve communication
- Tracking participants
- Consolidate into one
5. Develop and implement a plan:

The Annual Partner Survey

- Survey team created
- Compile, refine, and negotiate
- Promotion and recruitment
- Clean and share data
6. Reflect and improve:

- Gathered feedback to improve
- Still doesn’t collect all of the data for Network!
A Method to Applying Your Methods

1. Define the problem
2. Define the objective
3. Seek information
4. Brainstorm and weigh possible solutions
5. Develop and implement a plan
6. Reflect and improve
More Time for Questions & Answers!

What questions do you have?
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Thanks for joining us!

Upcoming Online Brown-Bag Conversations:

Findings from the Professional Impacts Summative Evaluation
Monday, September 28, 2015
2:00 – 3:00PM Eastern

Planning a Museum and Community Partnerships Project
Wednesday, September 30, 2015
2:00 – 3:00PM Eastern

Findings from NISE Net’s Public Impact Studies
Monday, October 5, 2015
2:00 – 3:00PM Eastern

All brown-bags are archived online at http://www.nisenet.org/events/online-workshop