

# Team-Based Inquiry

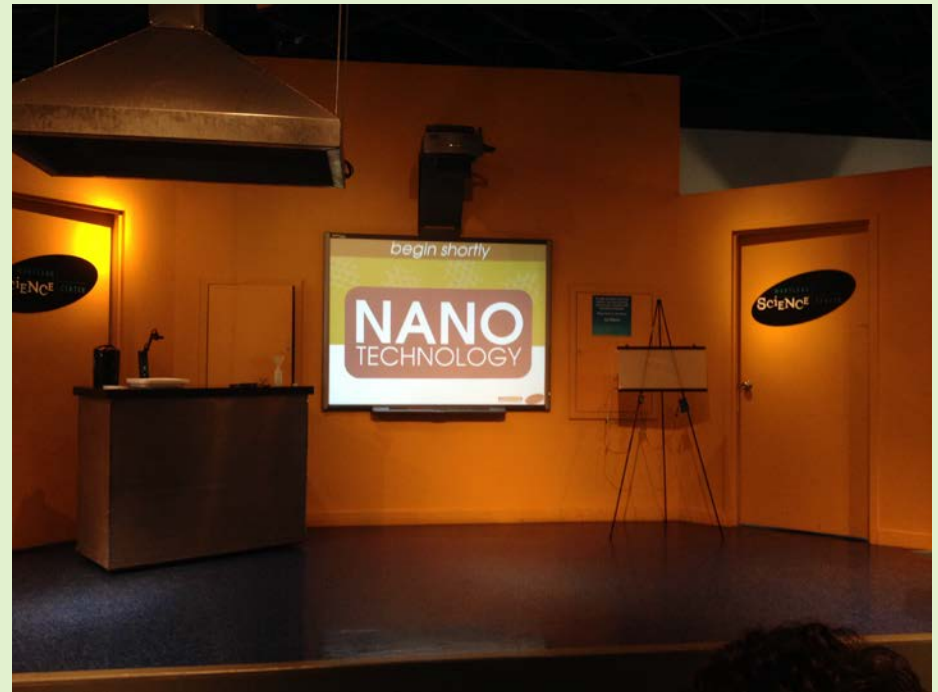
## Maryland Science Center



# Staff Training

## Goals

- Presenters will be prepared to engage visitors in an active role.
- Presenters will be prepared to facilitate personal connections between nano and a wide variety of audience members.



# Planning the Training



## Engaging the Public in Nano:

*Key Concepts in Nanoscale Science, Engineering, and Technology*



## Nanoscale Science Informal Learning Experiences:

*NISE Network Content Map*



Developed by Marjorie Bequette, Rae Ostman, Kirsten Ellenbogen, Greta Zenner Petersen, Darrell Porcello, Troy Livingston, Marilyn Johnson, and Paul Martin for the NISE Network.

# Key Concepts

nano is small and  
different

nano is studying  
and making tiny  
things

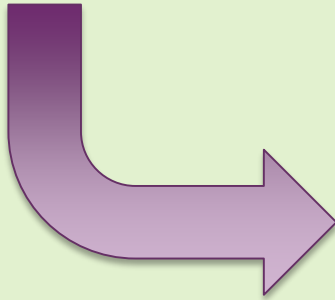
nano is new  
technologies

nano is part of  
our society and  
future

# Developing Questions

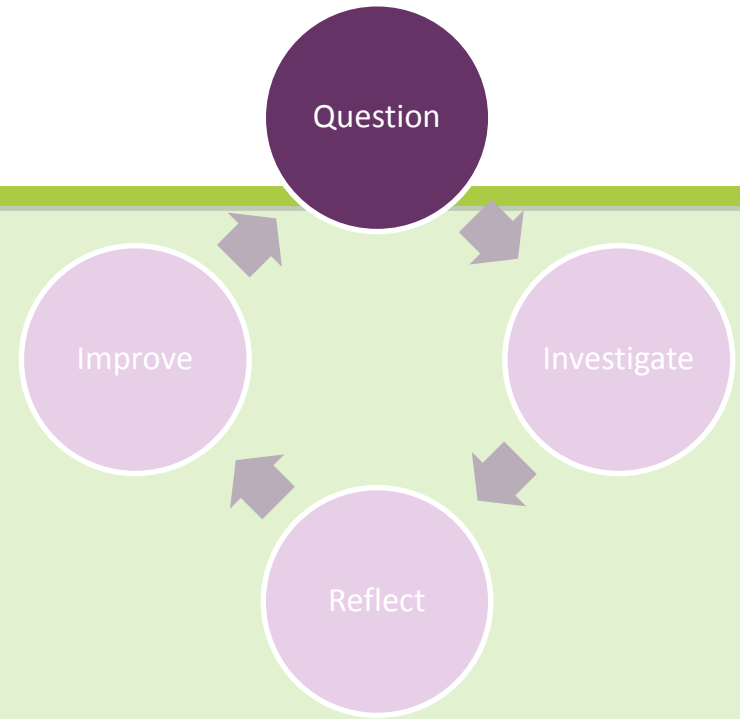
## Training Goals

- Presenters will be prepared to engage visitors in an active role.
- Presenters will be prepared to facilitate personal connections between nano and a wide variety of audience members.



## TBI Questions

- Do presenters develop their skills engaging visitors in an active role?
- Do presenters gain an understanding of nanoscale phenomena?



# Investigation Methods

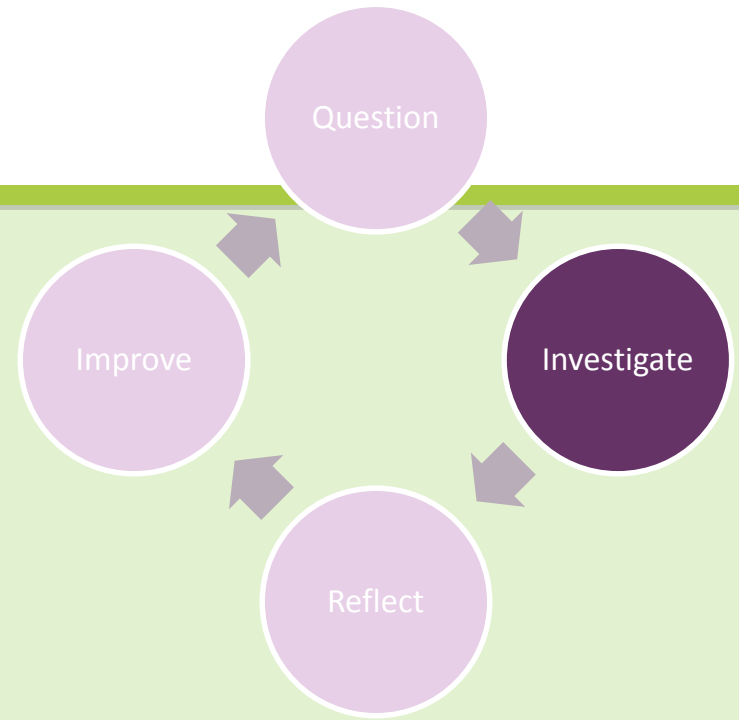
## **Do presenters develop their skills engaging visitors in an active role?**

Surveys were completed before and after the training addressing self-reported comfort with engaging visitors in an active role.

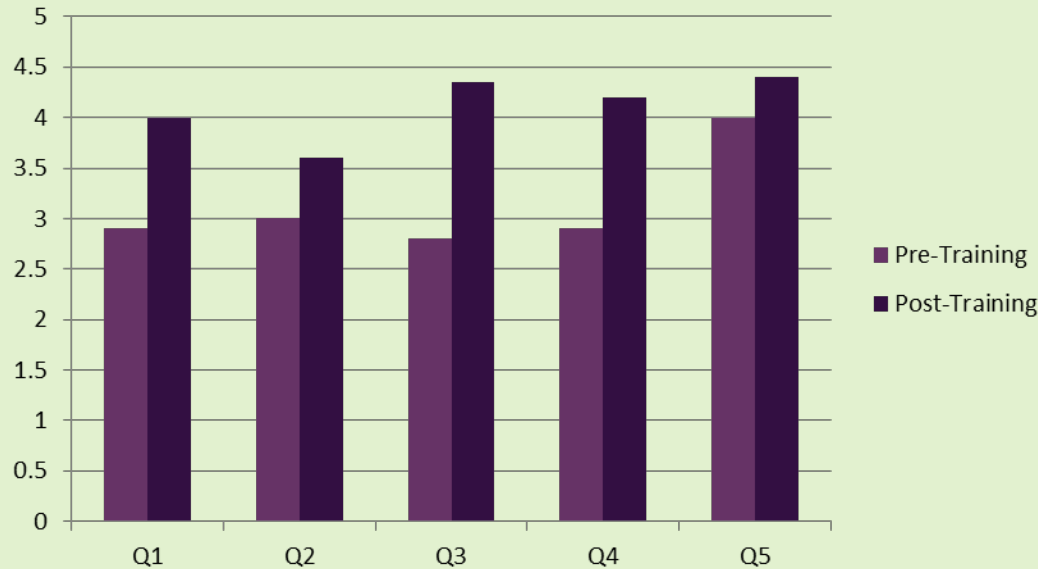
## **Do presenters gain an understanding of nanoscale phenomena?**

Surveys were completed before and after the training addressing self-reported knowledge of nanoscale phenomena.

Participants were invited to respond in writing to open-ended questions.



# Survey Data



How knowledgeable do you feel about...

Q1 ...nanoscale science and engineering?

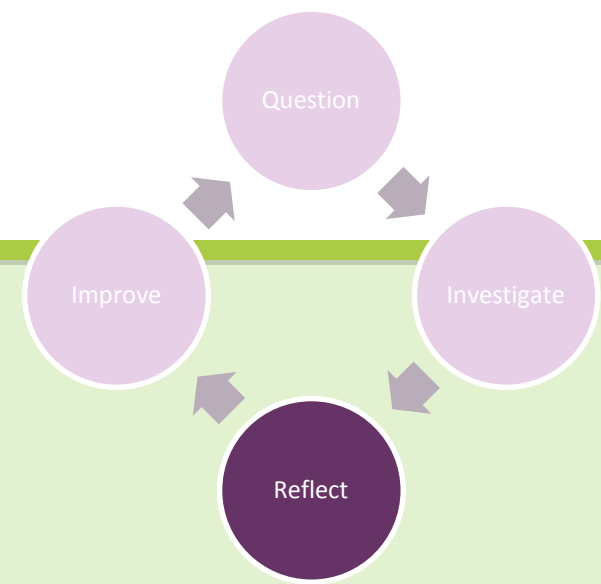
Q2 ...how things behave differently on the nano scale?

Q3 ...how nanotechnology relates to our daily lives?

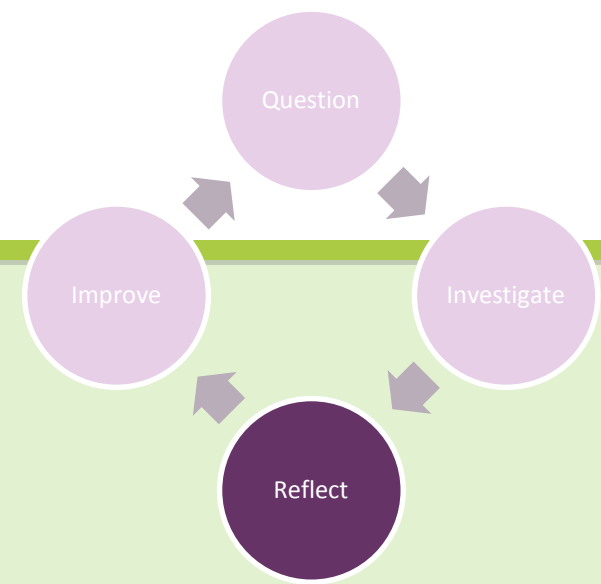
How comfortable are you with...

Q4 ...talking to visitors about nanotechnology?

Q5 ...facilitating activities which are directed by guest observations and comments?



# Open-Ended Questions



What questions do you still have about nano?

How could this training be improved?

What topics would you like to see in future trainings?



# Sorting Responses

What questions do you still have about nano?

Applications of Nano

3 responses

Chemistry of Nano

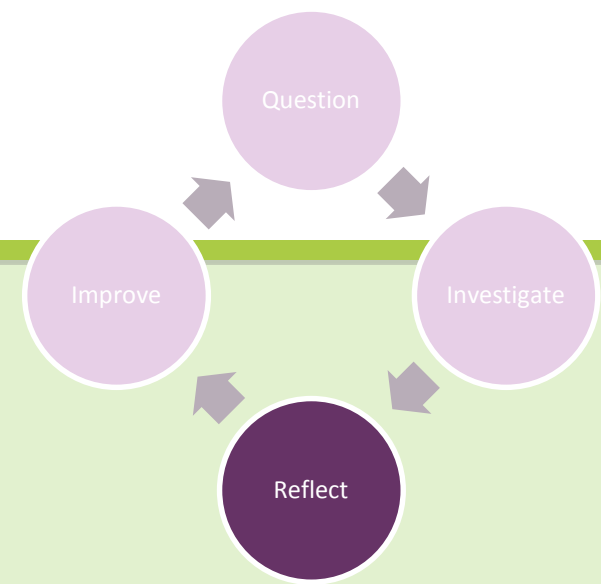
3 responses

Societal Implications

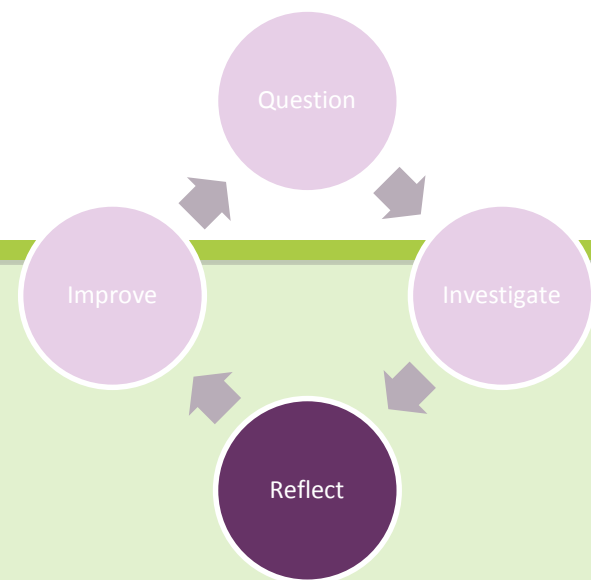
2 responses

Museum Activities

1 response



# Sorting Responses



How could this training be improved?

Applications of Nano

2 responses

Chemistry of Nano

1 response

Museum Activities

1 response

More information  
on each topic

2 responses

More topics

1 response

# Sorting Responses

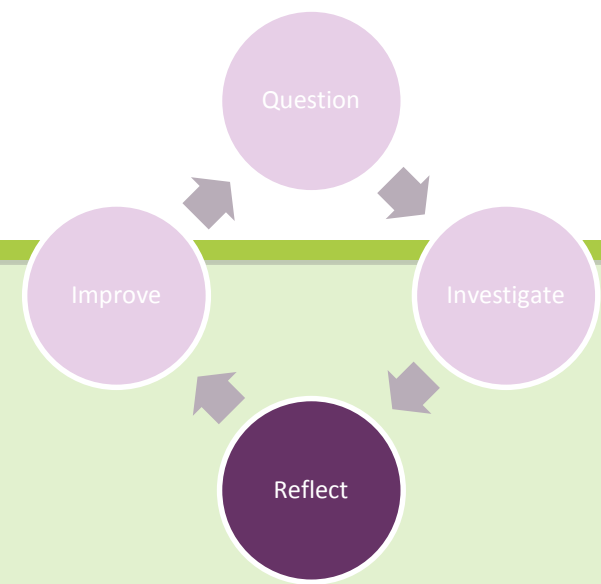
What topics would you like to see in future trainings?

Nano topics

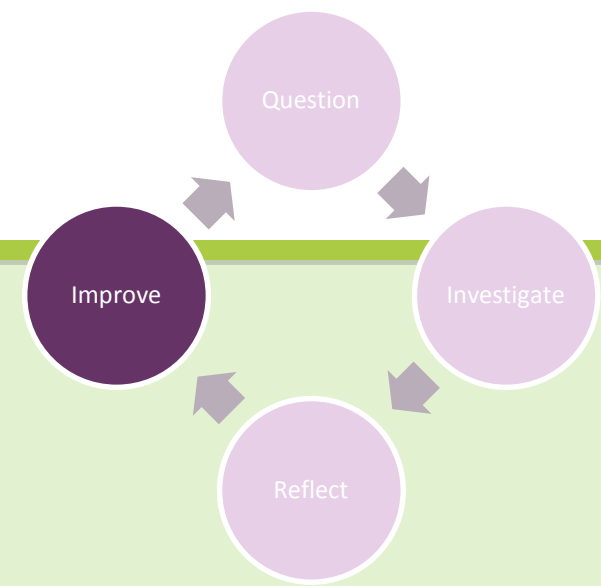
2 responses

Other topics

5 responses



# Future Training



## TBI Findings

Participants wanted more topics covered and more time with each topic.

Minimal impact on comfort engaging audience members in an active role.

Participants have more questions about nano and suggest nano topics for future trainings.

## Improvements

Plan future trainings with narrower focus or longer duration.

Focus on this skill during one-on-one training.  
Potential topic for future group training.

Offer one-on-one training opportunities and training materials. Potential to incorporate into future group training.

# Questions?



Abby Goodlaxson

[agoodlaxson@mdsci.org](mailto:agoodlaxson@mdsci.org)