



PORTAL  
to the Public

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# **Content Design and the Involvement of the Scientific Community**

Workshop for Establishing a National Science Centre  
Colombo, Sri Lanka  
January 22,2014



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Greetings from the US  
National Science  
Foundation.

We are delighted that NSF  
could provide support to  
make this workshop  
possible.

I am sorry I cannot be at the  
meeting, but look forward to  
hearing about the  
workshop's outcome.



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I not only represent NSF, but to also Pacific Science Center, where have spent more than 35 years working with scientists who are engaged with science centre activities.





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## Scientists play a critical role in the development and operation of a science centre

- Providing suggestions for exhibit and program content,
- Assuring the accuracy of the scientific content in exhibits and programs,
- Offering concepts for exhibits and programs, and
- Even building exhibits.





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Scientists are Experts at  
Knowing Science Content  
and How to Do Scientific  
Research



But They Are Not Experts  
at Communicating  
Science to Public  
Audiences

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Just as scientists spend  
years learning how to do  
scientific research



it takes years for informal  
science educators to  
learn the skills to  
effectively communicate  
science to the public.

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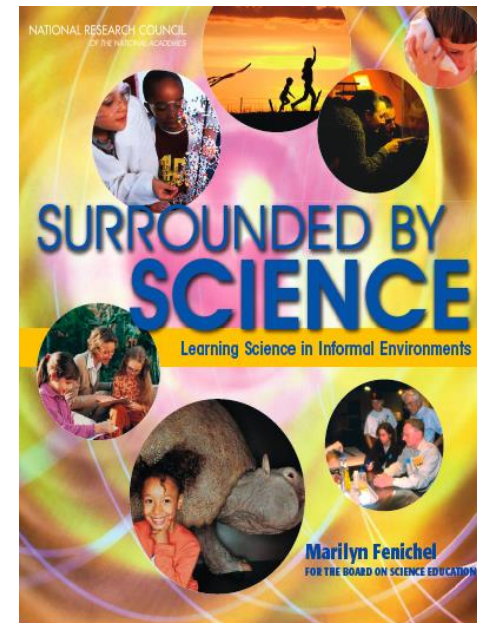
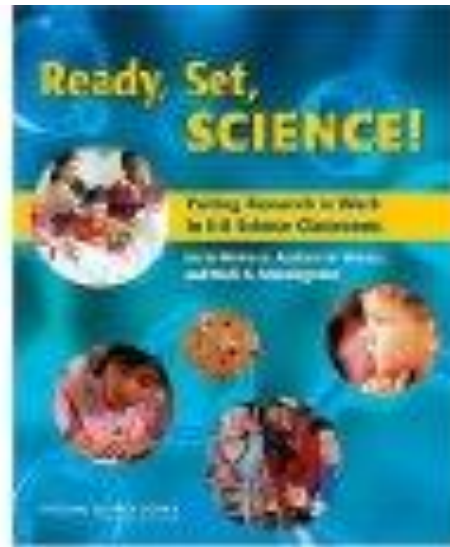
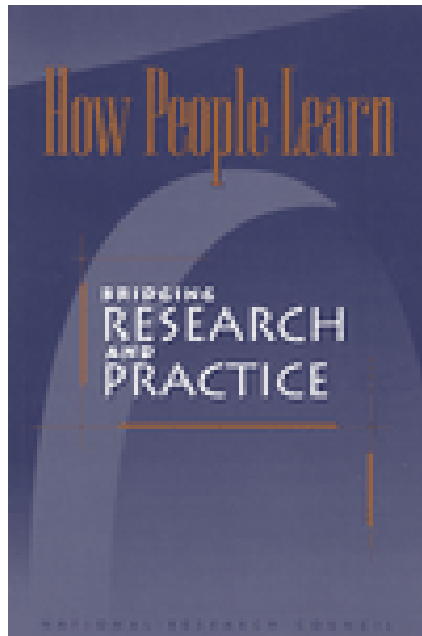


Therefore, I will spend the rest of my session discussing what scientists need to learn about how people learn in a science centre setting and how to facilitate learning with public audiences



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Much research has been done regarding how people learn in general and specifically in school and out-of-school environments



These publications highlight much of this research

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# PORTAL to the Public

Portal to the Public, led by Pacific Science Center and funded by NSF, is a program based on the research regarding how people learn. The program developed a set of professional development experiences for scientists, so that they develop the skills to effectively communicate science and engineering concepts with the public. It is now being implemented at 43 locations across the country



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This video provides an overview of the Portal to the Public program, the nature of the professional development that scientists receive and their reaction to the experience

[Portal to the Public Video](#)



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## **Portal to the Public Research Concluded that These are the Key Elements Needed in Professional Development for Scientists**

1. Self-awareness of strengths, weaknesses and fears regarding interacting with, and developing experiences for, public audiences
2. Communication skills with the public, either via face-to-face interactions or via mediated experiences, such as exhibits or electronic media
3. Understanding the motivations, learning styles, preconceptions, etc. of members of the public



## Specific Topics in the Professional Development Should Include

1. How people learn
2. Visitor types and motivations
3. Strategies for working with various age groups
4. Designing experiences that effectively use visuals and other materials
5. Providing a model of what effective interactions look like
6. Opportunities for scientists to practice their new skills
7. Ways to reflect, self-evaluate and get feedback on their interactions



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## The Key Characteristics of these Professional Development Experiences for Scientists



Workshops are engaging and dynamic!

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## Key Characteristics of Professional Development for Scientists



Focus on how public audiences learn and understand science

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## Key Characteristics of Professional Development for Scientists



Provide a chance to reflect, plan and practice

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For more information:

## Portal to the Public Synthesis Meeting Documents and Videos

<http://www.pacsci.org/portal/synthesis/>

## Portal to the Public Overview Video

<http://www.pacificsciencecenter.org/portal/video>

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