

Does Public Engagement Work?



Dr Penny Fidler
The UK Association for
Science and Discovery Centres

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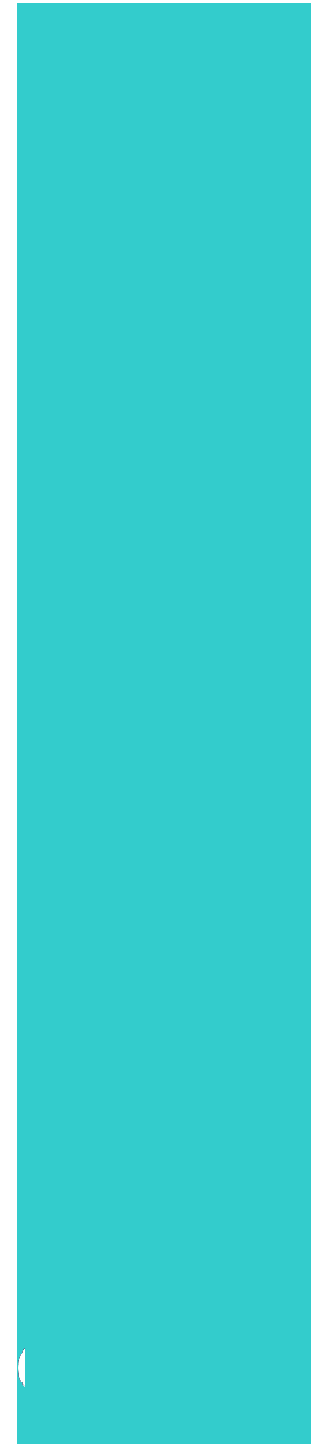


A shared ownership of science

- Public Understanding...
- Public Communication...
- Public Engagement...

NOW...

A Shared Ownership





What might we measure?

- Cultural impact
- Impact on Scientific literacy
- Impact on the local community
- Impact on teaching in the region
- Impact on knowledge-base of students
- Economic Impact
- Affective change of parents
- Attitudinal change of students
- Feelings of ownership over the issues
- Behavioural change in visitors

Measuring impact at a variety of levels;
Personal – family - community –
regional – national

Looking at our role strategically



Major Challenges:
Climate change - Energy - Water – Aging

- Our skill in Engaging people in debate
- Our ability of bringing together the public, scientists and policy makers to discuss issues
- Our potential to involve people in scientific debate and stimulate behavioural change
- Our impact inspiring scientists of the future to address Major Challenges

Measuring Attitudinal Change

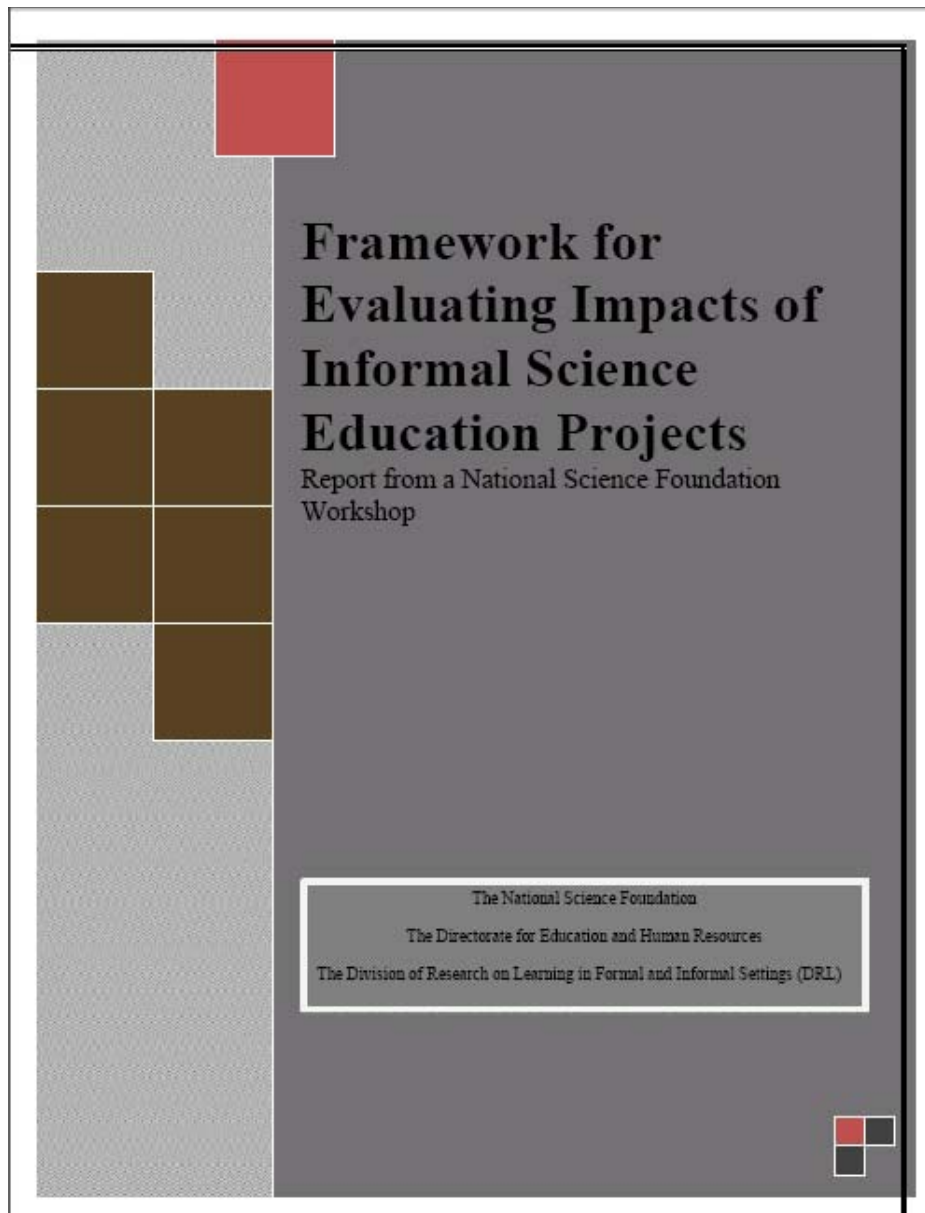
- Life-long and Life-wide learning
- Enjoyment in science
- Affective change
- Desire to experiment
- Playfulness with science
- Confidence to try new things
- Excitement of discovering something new.
- Deeper learning and on-going motivation and enrichment





www.inspiringlearningforall.gov.uk/toolstemplates/

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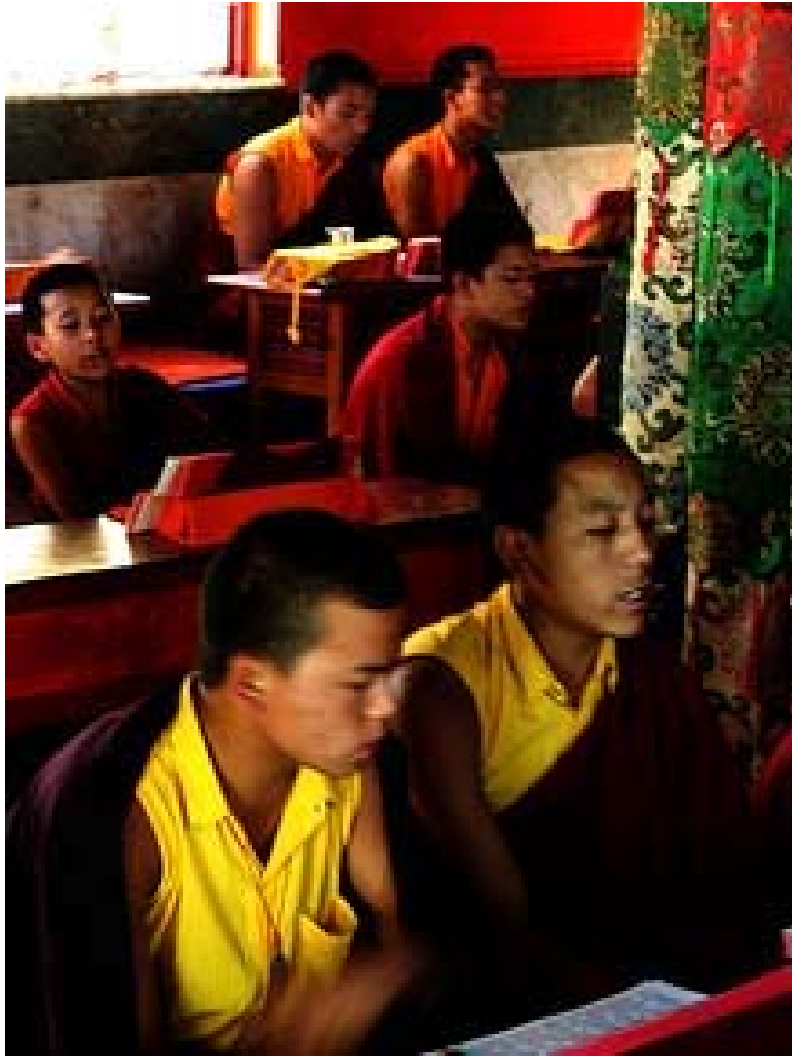
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Impact Categories (NSF)

1. **Awareness, knowledge or understanding** of STEM concepts, processes, or careers
2. **Engagement or interest** in STEM concepts, processes, or careers
3. **Attitude** towards STEM-related topic or capabilities
4. **Behavior** related to STEM concepts, processes, or careers
5. **Skills** based on STEM concepts, processes, or careers
6. **Other** (Project specific)

http://caise.insci.org/resources/Eval_Framework.pdf
(centre for advancement of informal science education)



“Do good work for a hundred years, then see if things are better.”

Dalai Lama

Mark St. John and colleagues from the Exploratorium run a “Science for Monks” program. They asked the Dalai Lama how he would suggest evaluating the program

Should we all start using a similar framework to assess impact?

GLO's
NSF Framework



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Assessing the Impact of Science and Discovery Centres Independent Government Research



- Last summer UK Government commissioned an impact study.
- Led by Science and Society team at BIS (formerly DIUS)
- Undertaken by Frontier Economics
- Study took place between June and December 2008
- Currently with ministers and will be published in the near future

The Goal of the Research by DIUS



- To measure the impact and value for money of Science and Discovery Centres in delivering Science and Society goals,

as compared to other STEM delivery mechanisms

- Comparators; STEMNET, British Science Association

- By Frontier Economics



Methodology

Quantitative Survey of all 50 centres + other organisations

Measuring;

- Activities offered
- Visitor numbers
- Schools and Teacher numbers
- Family visitors
- Background of visitors
- Support for **teachers**, do you have pre & post-visit materials

- What % of your staff have science degrees
- ...Do you have links with schools in your area

79 questions

Methodology: Interviews

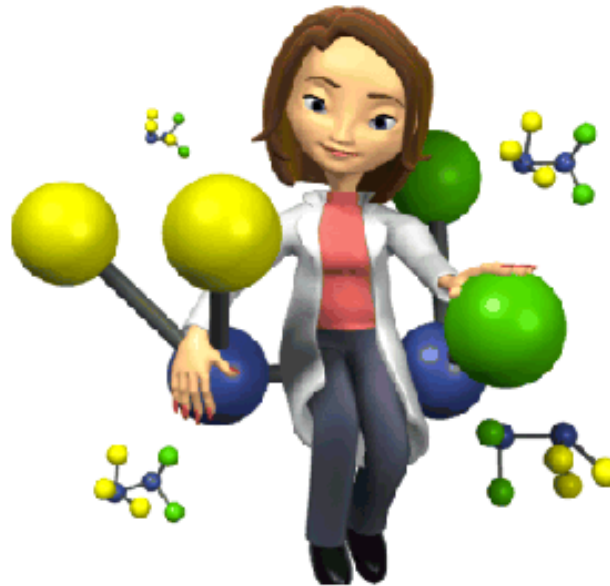


Case studies of:

- Intech
- Eden
- Thinktank
- Catalyst
- At-Bristol

- Interviews with funded science learning organizations (comparators)

Will a trip to a science centre
turn you into a scientist of the
future?



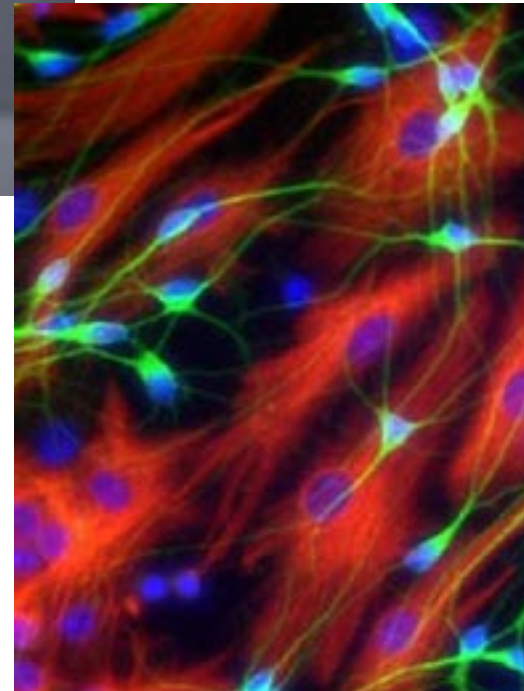
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Will a trip to a theatre make you into a future actor?



McMaster report

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Thank you



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