# EVALUATION IS YOUR FRIEND

7 July 2015

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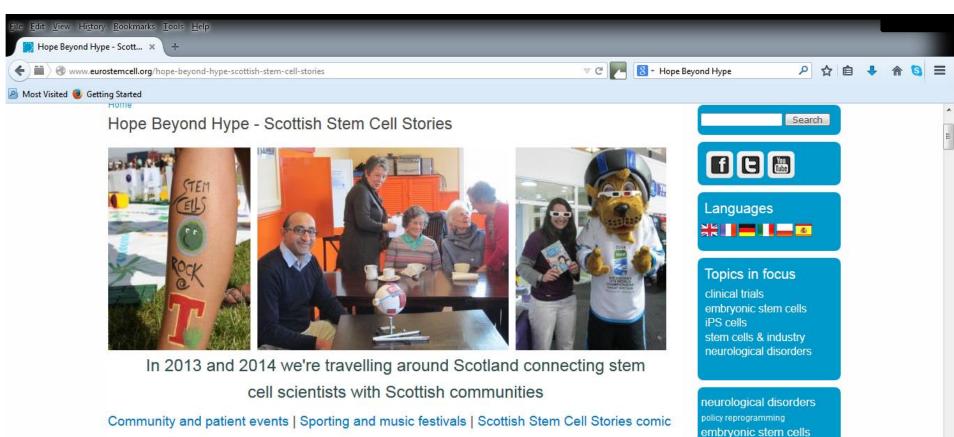
### **Jenesys** Associates

### Session Aim

To understand evaluation as an integral part of any science communication or public engagement activity

### Evaluating outreach?

# **Hope Beyond Hype**



GOOD NEWS! With the generosity of The Wellcome Trust we are extending our travels to include schools. We've named this arm of the project Regenerate!

schools public engagement clinical

DC

trials and stem cell

treatments research explained ethics research news

### **Festivals**

#### Edit View History Bookmarks Tools Help Explore Surgery $\rightarrow$ 8 👻 surgical simulation at Big Bang fair 🛛 🔎 V C Ξ www.exploresurgery.com ☆ 自 🙆 Most Visited 🥘 Getting Started EMERGENCY! at The Big Bang Fair, 14th - 17th March 2013 Two visitors to the Imperial College exhibit at The Big Bang Fair in 2012 find themselves as part of the clinical team performing an Angioplasty operation in a medical simulation.

We will be participating at The Big Bang Fair on 14th - 17th of March 2013 at London's Excel Centre. Our stand, titled "Emergency" is a central exhibit of the Health Zone, and each day we will be demonstrating medical emergency simulations. Come and meet highly skilled clinicians and learn about their careers and skills

### **Museum Gallery Preferences**

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	Welcome to NatSCA, we are a UK based membership organisation and charity that represents natural science collections and the people that work with them.	Become a Member Become a member of NatSCA today to enjoy further benefits of our Subject Specialist Network and help support natural science collections across the UK and beyond. Find out more about the benefits of membership and join online now! Connect with NatSCA To keep up with the latest from NatSCA, sign up to our JISCMAIL list and connect via social media:				

### **Physics Beer Mats**





#### Which type of glass does your beer prefer?



Z





BEER

**IOP** Institute of Physics



Why evaluate?

To prove and/or improve

**Clarify objectives** 

Identify audiences

Demonstrate success

- Highlight good practice
- Help attract funding

Information about scope for improvement & lessons learnt

What is GOOD and BAD evaluation?

# 'Good' evaluators DO:

- Think of evaluation as a tool for reflection and learning, not merely judgement
- Think about evaluation during planning
- Ensure sufficient time and resources
- Aim to collect balanced feedback
- Plan evaluation questions at the start
- Think about the most appropriate way of collecting feedback from their audiences
- Analyse and write-up data
- Share findings with others

### 'Good' evaluators DON'T:

- Think that evaluation is pointless
- Leave it to the last minute & rush it
- Bias their questions for positive feedback
- Think that evaluation = a questionnaire
- Worry that evaluating some thing which didn't work means they have failed
- Leave data on a shelf
- Keep findings to themselves

### 7 steps to Good Evaluation

- 1. Define activity aims and objectives
- 2. Define evaluation aims and objectives
- 3. Choose evaluation methodology
- 4. Design data collection materials
- 5. Collect data
- 6. Analyse data
- 7. Report findings

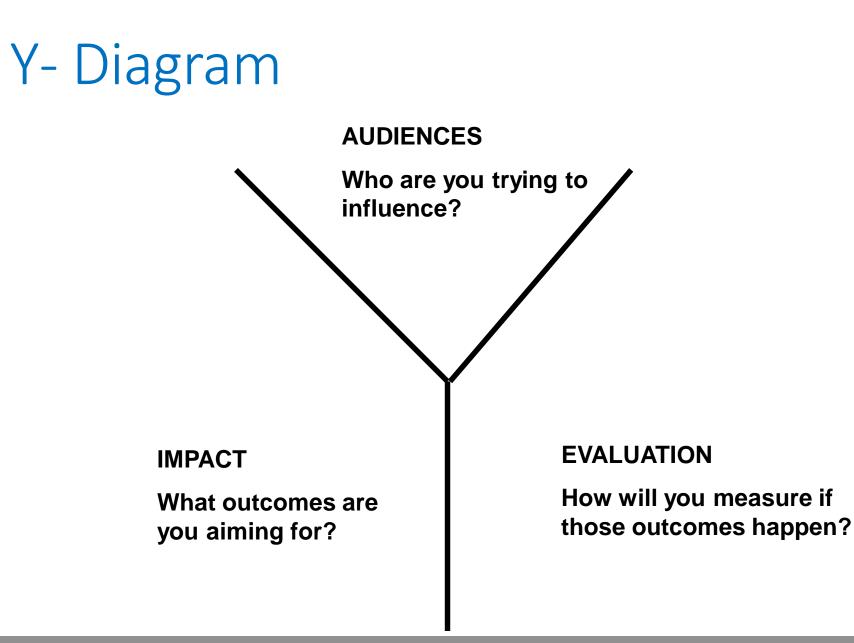
### Step 1: Activity aims & objectives

Build evaluation into your activity from the start Objectives should be SMART

• Specific, Measurable, Achievable/Agreed, Realistic, Time-bound

Front-end evaluation can help set objectives for activity

What outcomes would you like your activity to have?



### Outputs, Outcomes, Impacts

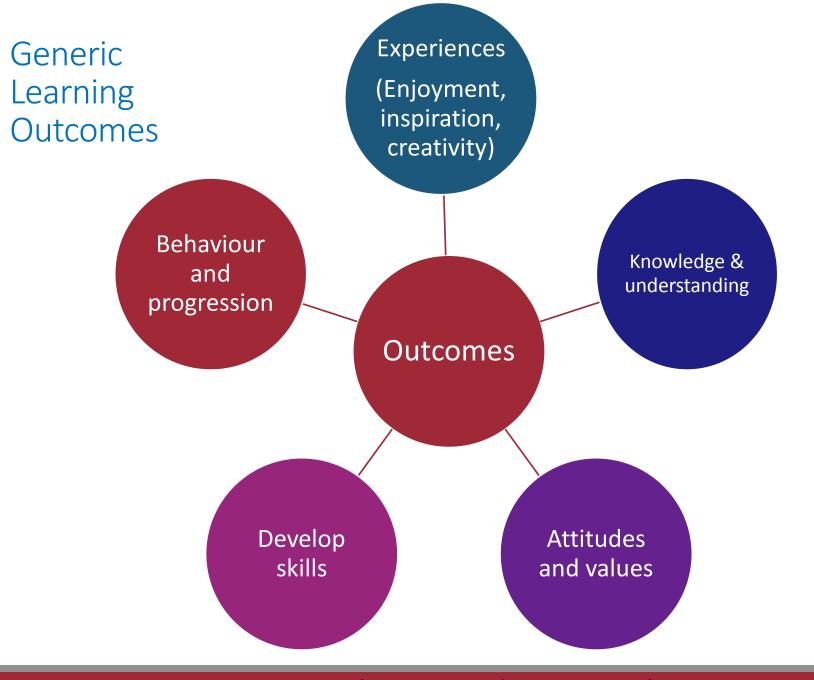
**Outputs** – the results of your activity (e.g. events, exhibits, websites, shows)

**Outcomes** – the benefits you aim to achieve (e.g. deeper understanding, skills, knowledge, action)

**Impact** – the overall effect or influence of the activity i.e. the sum of the outputs and incomes

### GLOs





www.inspiringlearningforall.gov.uk/toolstemplates/genericlearning/

### Step 2: Evaluation aims & objectives

- Who is your evaluation for? (funder, partners, audiences)
- •Will it be primarily?
  - Summative (proves)
    - Measurement of success
    - Backward looking
    - Often mostly quantitative
  - Formative (improves)
    - Feeds into and shapes activity
    - Forward looking
    - Often mostly qualitative

### Step 2: contd.

Articulating evaluation aims will help you develop:

**Research questions** – what you want your evaluation to find out **Indicators** – the ways in which you will answer the questions

*Did the audience enjoy the event?* 

Audience:

appear engaged rank event highly in terms of enjoyment describe event as 'fun' or 'enjoyable'

### Step 3: Choose methodology

How will you collect data?

- Qualitatively
- Quantitatively
- Both

Think about your audiences

Think about the environment

### Step 4: Design materials

Balanced – ask for most and least favourite

Non-leading – think about wording

**Comparable** – ask the same questions for comparable events and activities

Easy to complete – think about design, layout, format, medium

Piloted – test if possible

**Optimum length –** not too short or too long

### Step 5: Collect data

#### **Sample –** will it be?

- Census
- $^{\circ}$  Random
- Self-selecting
- Intentionally skewed

Can be useful to have more than one sample if possible

### Step 6: Analyse data

Think about how you will present your data and analyse it in the same logical order.

- 1. Describe activities, events, audiences
- 2. Describe evaluation samples
- 3. Descriptive statistics
- 4. Analytical statistics

### Step 7: Report

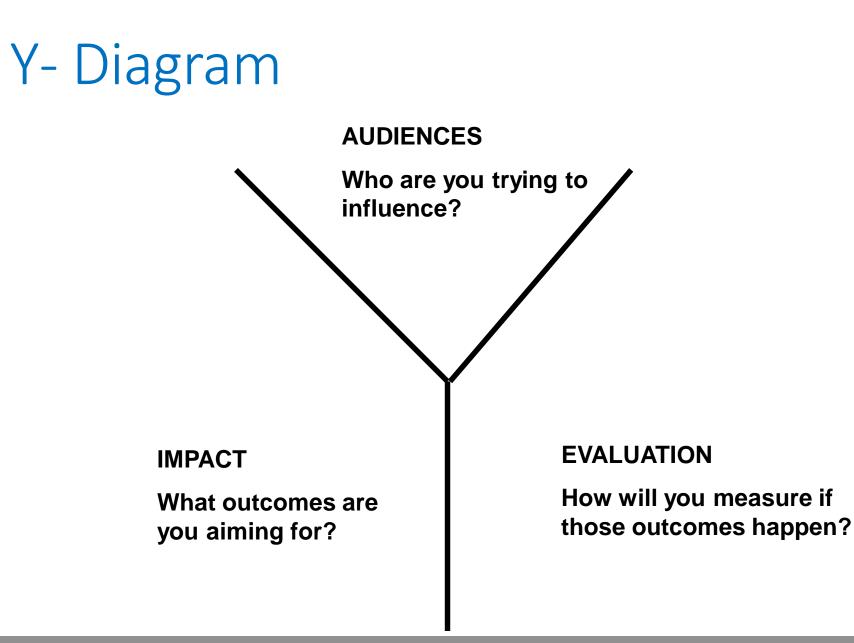
- 1. Executive summary
- 2. Introduction
- 3. Methodology
- 4. Description of activity
- 5. Description of evaluation sample
- 6. Descriptive and analytical results
- 7. Conclusions
- 8. Recommendations

### Your Outreach Activity

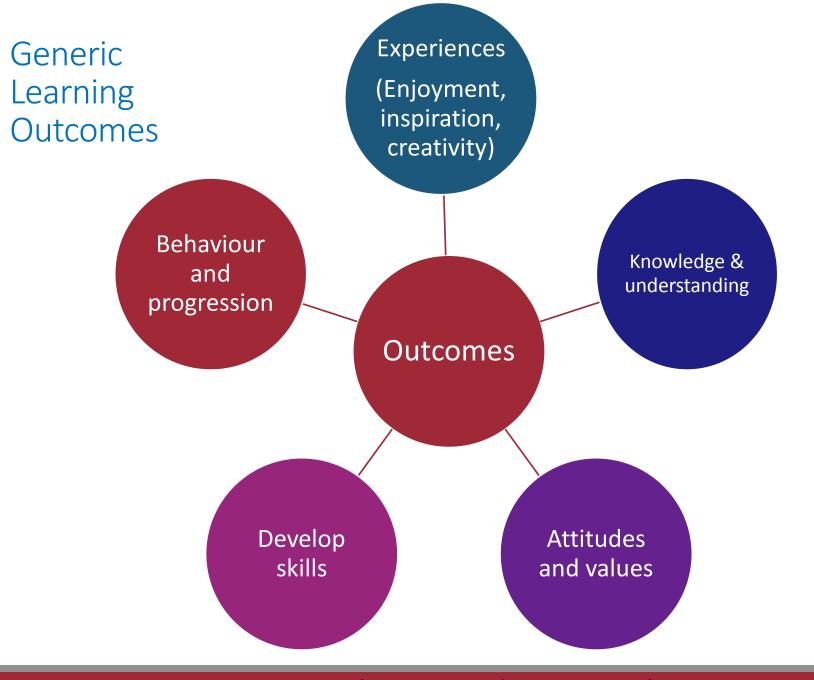
- What activity are you evaluating?
- What do you want to find out?
- How are you going to evaluate it?
  - Methods
  - Materials
  - Samples

Think about audiences and environments

Any evaluation challenges?



What should we be evaluating in astronomy and geophysics outreach?



www.inspiringlearningforall.gov.uk/toolstemplates/genericlearning/



Research Councils UK

www.rcuk.ac.uk/Publications/policy/Pages/Evaluation

National Coordinating Centre for Public Engagement

http://www.publicengagement.ac.uk/plan-it/evaluating-public-engagement

Charities Evaluation Services

http://www.ces-vol.org.uk/Publications-Research

# References – contd.

Personal Meaning Mapping (alternative to pre- and post- questionnaires)

http://www.depts.ttu.edu/museumttu/CFASWebsite/5333/Supplemental%20Readings%20 2011/Falk\_The%20Effect%20of%20Visitor%27s%20Agendas.pdf

Ben Gammon's Questionnaire Guide

http://www.danacentre.org.uk/documents/pdf/questionnaire\_recipe\_book.pdf

Theory of Change (Project evaluation)

http://www.theoryofchange.org/what-is-theory-of-change/

Bristol Zoo Evaluation Tips – 10 Pain Free Ways To Evaluate

http://www.izea.net/education/journal%2047%202011-10-pain-free-ways-to-evaluateyour-education-programs.pdf

### Answers on a postcard