



# LITTLE BOOK OF EVALUATION TOOLS:

## *Curiosity Carnival* case studies

---

This guide highlights a series of easy-to-use methods to evaluate the impact of Public Engagement with Research activities, including performances, table-top activities, workshops and talks, using case studies from the University of Oxford's European Researchers' Night *Curiosity Carnival*.





# CONTENTS

Introduction	3
Why evaluate?	4
Evaluating <i>Curiosity Carnival</i>	5
<b>Evaluation activities for:</b>	
A site with multiple activities and displays	6
Short 'drop-in' talks	8
Interactive shows	10
Researcher-public one to one interactions	12
Games	14
Workshops	16
Short performances	18
An interactive and immersive installation	20
Debates	22
In summary	24
Planning a straightforward evaluation	25
Further information	28
Acknowledgements	29



# INTRODUCTION

This guide is for researchers and engagement practitioners who are new to evaluating Public Engagement with Research activities and events.

You will find practical evaluation tools that were used to explore the visitors' experiences of a range of activities that took place at *Curiosity Carnival*, the University of Oxford's European Researchers' Night.

*Curiosity Carnival* was a huge festival of Public Engagement with Research – a city-wide programme of activities that took place in the University of Oxford's museums, libraries, gardens,

woods and in the city-centre. There was a wide range of researcher-led engagement activities for all ages and interests – live experiments, games, stalls, busking, debates, music, dance and a pub-style quiz. You can find out more about *Curiosity Carnival* here:

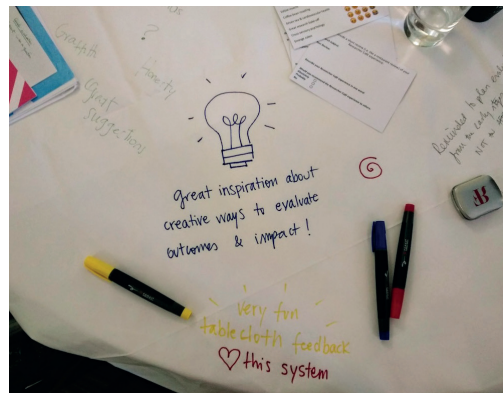
[www.ox.ac.uk/curiosity-carnival](http://www.ox.ac.uk/curiosity-carnival)

In this guide, we hope that you find some inspiration and creative ideas for evaluating your own Public Engagement with Research activities that aim to inform and inspire the public.



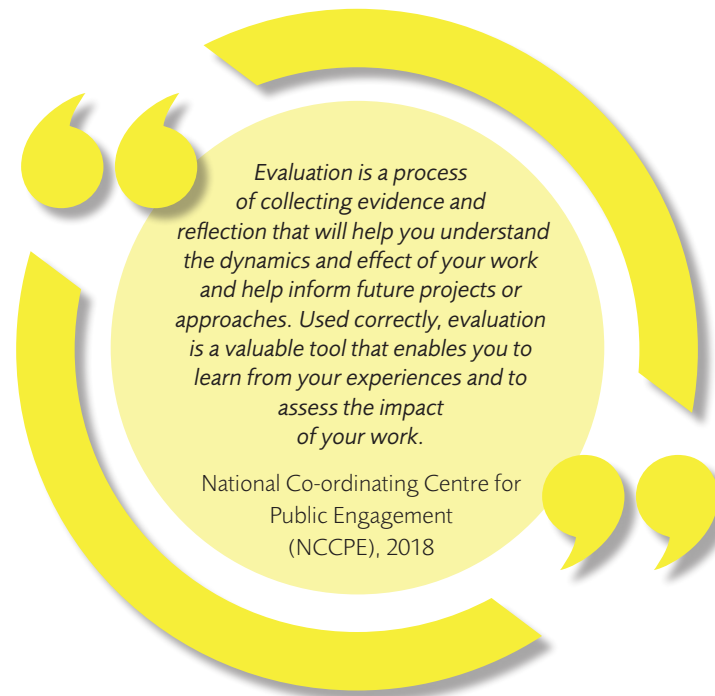


# WHY EVALUATE?



Evaluation is a process to collect evidence, learn from your experiences and can provide you with:

- Evidence of outcomes and different types of impact
- The opportunity to reflect, learn and improve activities
- Evidence to support future funding applications
- An understanding as to whether your activity is fit for purpose



Public engagement can result in a range of academic, societal, cultural and economic impacts. Impacts on the engaged publics can include informing, enhancing knowledge, influencing attitudes and values, enjoyment, inspiration and learning new skills.

Evaluation can be used to demonstrate the outcomes and impact of engagement activities and what difference (if any) these have made to particular groups of people or target audiences. When used effectively, evaluation can help you explore whether engagement has generated impact and resulted in changes to people's understanding, emotions, views, values or behaviours.

# EVALUATING CURIOSITY CARNIVAL



An in-depth evaluation was carried out to understand the outputs, outcomes and impacts of *Curiosity Carnival* as a whole and to measure against five key objectives. One of these objectives was to explore how to best evaluate and gather evidence of the impact of live researcher-led engagement activities, given these are typically one-off activities with a fairly short time period to interact with the public.

As such, we tried and tested a range of different evaluation and impact assessment tools to gather venue-wide feedback and local feedback for specific activities. Traditional evaluation techniques, such as interviews, surveys and focus groups, were avoided and instead the emphasis was on light-touch creative tools that, where possible, would feel part of the activity rather than an 'add-on'.

A total of 5 venue-wide and 28 individual activities (9 different formats, such as a performance, a talk, a workshop) evaluations were conducted, using 21 different techniques to explore the following outcomes and impacts:

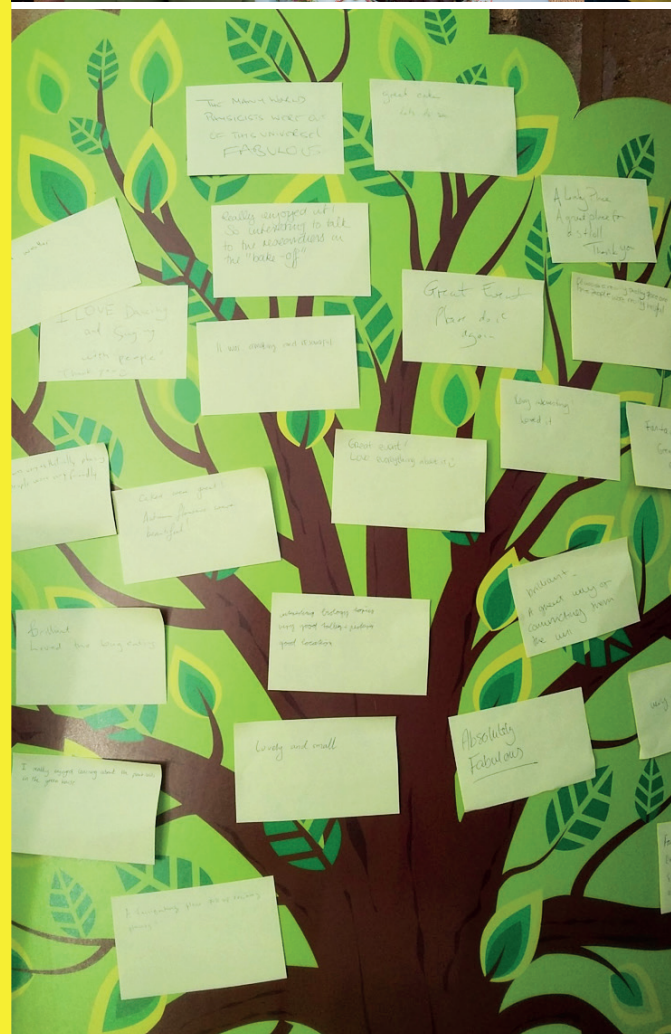
- Visitor experience
- Learning and understanding
- Changing perceptions

This guide shares a selection of the tools that were used to gather quantitative or qualitative evidence, or both.



# EVALUATION ACTIVITY

## FOR A SITE WITH MULTIPLE ACTIVITIES AND DISPLAYS



### Evaluation tool: Graffiti wall

#### Description:

A graffiti wall in the shape of a tree was located at the exit of one of the *Curiosity Carnival* venues, the *Oxford Botanic Garden*. At the venue, there was a range of activities and interactive displays, such as the *Great Research Bake-Off*, the *Quantum Story Corner*, and the *Curious Conservatory*. Upon leaving the venue, visitors were asked to add their comments and feedback on post-it notes and stick these onto the tree, describing their experience of the activities in the venue in their own words. A facilitator was stationed by the tree and encouraged visitors to share their feedback.

#### Resources needed:

Graffiti wall, post-it notes, pens, a facilitator.

#### Outcome/impact to explore:

To explore the overall visitor experience.

#### Response level:

42 (5% - 10% response rate).

#### Type of response:

Qualitative, written responses.

**Synthesis:** The individual responses were 'coded', i.e. they were grouped into themes or categories and presented in a table. This enables the evaluator to synthesise and make sense of a large number of open responses and to reveal an overall understanding of the visitors' experiences by seeing which categories have the highest frequency of responses. An example is provided below.

THEME	EXAMPLE RESPONSES FROM VISITORS CAPTURED ON THE POST-IT NOTES
Overall enjoyable, interactive and engaging learning experience	Making science and research fun. Beautiful setting, Loved the interactivity.
	Lots of things to see. Liked the "cake research" ideas.
	Fascinating. Enjoyed the spiders, scorpions, and crickets – actually tasted good!
	Great event! Love everything about it.
	Brilliant – a great way of connecting by the University.
Good venue and friendly	Interesting biology topics. Good events. Good location.
	Lovely and small enough to see everything.
Too noisy	The place was really aesthetically pleasing and the people were very friendly.
	Generally great, the tent was too loud.

**What did the results tell us?** The majority of the feedback was positive, with demonstrable evidence that the visitors had an enjoyable, interactive and engaging learning experience. In particular, people enjoyed learning about research through the *Great Research Bake-off*, in which researchers demonstrated their work in the form of cakes, pies and tarts. One visitor noted that it was too loud, however the majority of visitors were positive about the venue.



**Top tips and reflections:** The feedback tree was visually eye-catching and a creative way to ask for visitors to provide their comments that felt part of the overall experience, as the design was in keeping with the *Botanic Garden* venue. Post-it notes were a quick and easy way for visitors to share their views, capturing open, qualitative responses. The facilitator that was present by the graffiti wall helped to encourage responses and offer guidance. This also helped to avoid only gathering self-selected responses and therefore helped to reduce bias.



# EVALUATION ACTIVITY

## FOR SHORT 'DROP-IN' TALKS

### Evaluation tool: Rating cards (smiley cats)

#### Description:

The *Quantum Story Corner* was a short, drop-in talk, where researchers explored quantum physics by using story books, such as *Alice in Wonderland* (hence the Smiley Cat) and Philip Pullman's *Dark Materials*. At the end of the talk, visitors were asked to complete a 'Smiley Cat' rating card to reflect their experience of the session, by circling one of the happy, neutral or sad faces.

#### Resources needed:

A6 postcards with pictures, pens, a facilitator.

#### Outcome/impact to explore:

Visitor experience.

#### Response level:

19 (10% - 25% response rate).

#### Type of response:

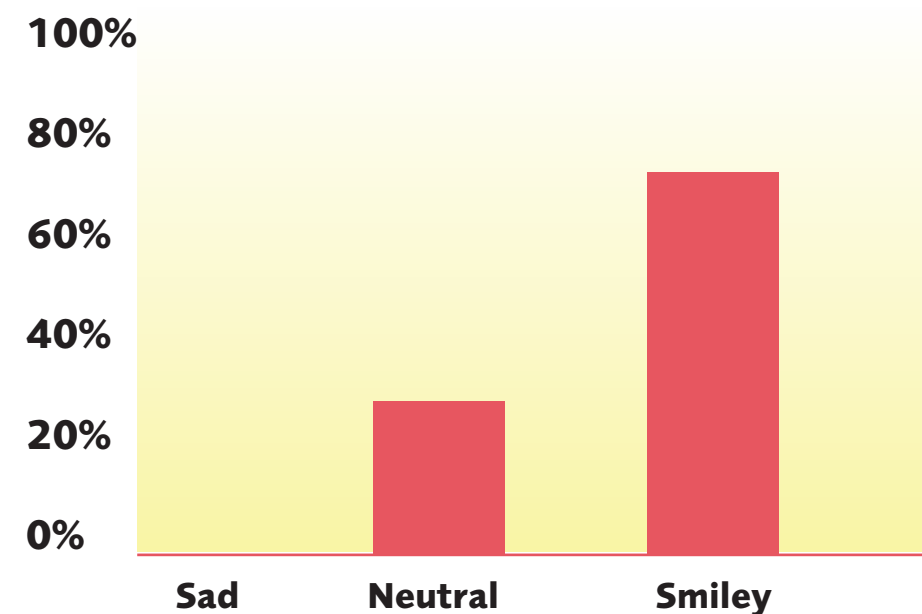
Quantitative ranking responses.



**Synthesis:** A simple frequency table was produced and visualised with a bar chart:

SAD CAT	NEUTRAL CAT	SMILEY CAT
0	5	14

VISITOR EXPERIENCE OF THE *QUANTUM PHYSICS CORNER* TALK



**What did the results tell us?** The majority of responses highlighted a positive experience of the *Quantum Story Corner* talk, with 74% smiley responses; 26% neutral and no sad responses.

**Top tips and reflections:** Rating cards were a quick and easy method to gather feedback on short drop-in talks that were successful in exploring visitor enjoyment (or not) of the activity.





## EVALUATION ACTIVITY

# FOR INTERACTIVE SHOWS

### Evaluation tool: Audience participation exercise

#### Description:

*Accelerate!* was an interactive theatre show that used demonstrations about particle accelerators. At the end of the show, the presenters left the room and two facilitators used an audience participation exercise to gather feedback about their experience of the show. The facilitators asked the audience members to stand and then sit down in response to the following questions:

Firstly, all stand up and sit down if you a) know a lot more about particle acceleration than you did before, b) know a little bit more than you did before, or c) knew it all before.

Secondly, all stand up again and sit down if you thought the presentation was a) brilliant, b) good, c) OK, or d) rubbish.

The facilitator counted the number of people at each stage.

#### Resources needed:

Questions to respond to, a facilitator.

#### Outcome/impact to explore:

Visitor experience, learning and changes in understanding.

#### Response level:

58 for one show (75% - 100% response rate).

#### Type of response:

Quantitative.



**Synthesis:** Frequency tables were created from the results.

	NOW KNOW A LOT MORE	NOW KNOW A LITTLE MORE	KNEW IT ALL BEFORE
LEARNING OUTCOMES	40	17	1

	BRILLIANT	GOOD	OK	RUBBISH
QUALITY OF PRESENTATION	39	19	0	0

**What did the results tell us?** The majority of visitors increased their knowledge, with 40 visitors learning a lot more and 17 knowing a little more after watching the performance. Only one visitor learned nothing/ very little. All visitors thought the presentation was of good quality, with 39 visitors rating this as brilliant, and 19 as good.

**Top tips and reflections:** This was an engaging exercise that was integrated into the interactive performance, and therefore a quick way to gather feedback from the whole audience on their experiences as well as learning outcomes. It was important to ask the presenters to leave the room and to have a facilitator run the feedback exercise, to help elicit more open and honest responses.

For judging the quality of the presentation, a 4-point Likert scale was used. This involved asking the audience to rate the quality of the presentation as; Brilliant, Good, OK or Rubbish. Rather than only including 1 negative point, this could have been more evenly balanced through a 5-point scale (i.e. including 2 positive points, 1 OK, and 2 negative points).









# EVALUATION ACTIVITY FOR GAMES

## Evaluation tool: Texting/ emailing feedback

### Description:

At the *Gaming Café*, visitors could learn about research through playing interactive science-themed board games. After playing the game, researchers asked visitors to text or email (to a facilitator mobile number or email) their comments and reviews on their board game experience.

### Resources needed:

Phone/device to send and receive texts/emails.

### Outcome/impact to explore:

Visitor experience.

### Response level:

10 (<5%).

### Type of response:

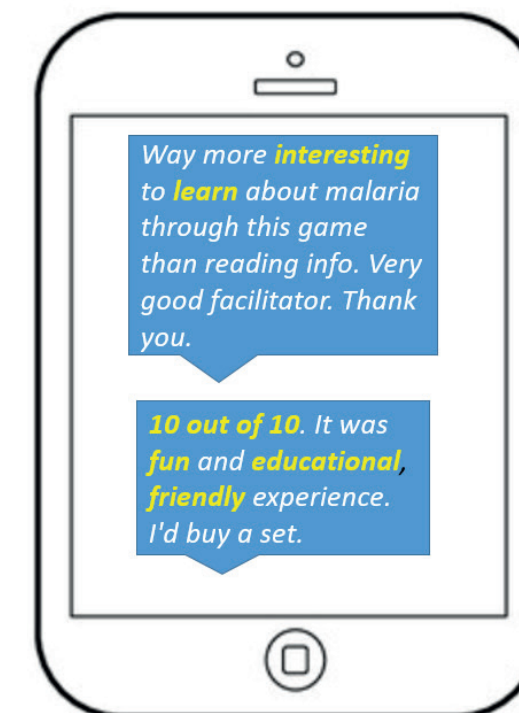
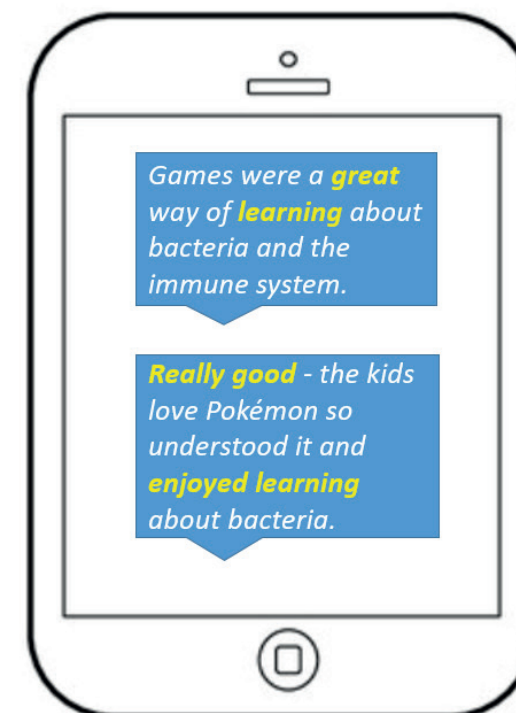
Qualitative, written e-mail/ text comments.



**Synthesis:** Responses were collated and grouped by each different game that the comments referred to. Responses were then synthesised in terms of positive/ negative comments, and references to any specific features were noted.

**What did the results tell us?** All the responses were positive with references to the games being informative, thought-provoking, and an interesting way to learn about research, for example one visitor commented "10 out of 10. It was a fun and educational, friendly experience".

**Top tips and reflections:** While this was an interesting technique to try, only a small number of responses were collected due to the self-completion nature of the activity; and visitors may have been reluctant to use their own devices.





# EVALUATION ACTIVITY FOR WORKSHOPS

## Evaluation tool: Observation

### Description:

A facilitator observed and reported on this activity-based 'Neurococktails' workshop, where visitors learned about how alcohol affects the brain while mixing and trying different cocktails.

### Resources needed:

Observer, guidance sheet to record observations (with details on what to look for and record).

### Outcome/impact to explore:

Effectiveness of the activity; audience participation and engagement.

### Response level:

N/A

### Type of response:

Qualitative, written observations.



**Synthesis:** The observer was provided with guidelines to report on:

- Participant mix, i.e. adults, children etc.
- Level of audience engagement through the workshop – early engagement, later engagement, any changes.
- Type of audience engagement, e.g. exercises, activities, questions etc.
- Enthusiasm of participants.
- Any issues, problems.
- Overall impressions.

The observer then used their notes to produce a short review of audience participation and engagement.

**What did the results tell us?** During the workshop, the initial talk had everyone listening attentively, and the presenting researcher was engaging. During the practical part, the groups of workshop participants chatted and discussed the instructions on each table and worked together to do the experiment. Overall, the observer rated this activity very highly for engagement and participation.

**Top tips and reflections:** Observation is a useful tool to evaluate the effectiveness of an activity and to capture perceived levels of engagement, participation and interest. However, while an observer can aim to judge the experience of the public participants, other tools may be better for evaluating these outcomes, in particular in which the feedback is gained directly from the participants themselves.





# EVALUATION ACTIVITY

## FOR SHORT PERFORMANCES

### Evaluation tool: Feedback postcard (music themed)

#### Description:

The *Ancient Greek Music* activity brought ancient music to life through a short talk and a live demonstration of a reconstructed Greek wind instrument. After the performance, the audience were asked to complete 'musical staff' postcards. On the postcard, visitors could use a dot or draw a musical note to indicate how much they enjoyed and understood the performance. The higher up the staff represents how much they understood the performance and further right along the staff how much they enjoyed it.

#### Resources needed:

Designed postcards, pens, a facilitator.

#### Outcome/impact to explore:

Visitor experience, learning and understanding.

#### Response level:

36 (25% - 50% response rate).

#### Type of response:

Quantitative.



**Synthesis:** Responses on postcards were collated to record how many visitors placed a dot at the far right of the musical staff (indicating level of enjoyment), and how many visitors placed a dot high up on the musical staff (indicating level of understanding).

### PERFORMANCE OF ANCIENT GREEK MUSIC

On the music staff below, please place a small dot (or musical note)

- ❖ Where you place the dot along the staff represents how much you enjoyed the performance, i.e. the further right it is placed the more you enjoyed it
- ❖ Where you place the dot vertically represents how much you understood the performance, i.e. the further up it is placed the more you understood it


**What did the results tell us?** Overall, this was an enthusiastically received activity. Out of 36 responses, 35 enjoyed the performance and 33 also understood it.

**Top tips and reflections:** This was a creative way for visitors to quickly feedback their level of enjoyment and understanding of a drop-in performance and the tool matched the theme of the activity. The facilitator was key in encouraging the visitors to complete and return their feedback cards and to reduce self-selection.





## EVALUATION ACTIVITY

# FOR AN INTERACTIVE AND IMMERSIVE INSTALLATION

### Evaluation tool: Facilitated rating questions

#### Description:

The *Blood Factory* was a small room in the *Oxford Museum of Natural History* that was dressed in red drapes with a soundscape and a range of tabletop practical activities about blood and transfusions. When leaving the *Blood Factory*, visitors were asked by a facilitator to sum up their experience from one to five (where one is poor, and five is excellent).

#### Resources needed:

Facilitator, score sheet to record answers.

#### Outcome/impact to explore:

Visitor experience.

#### Response level:

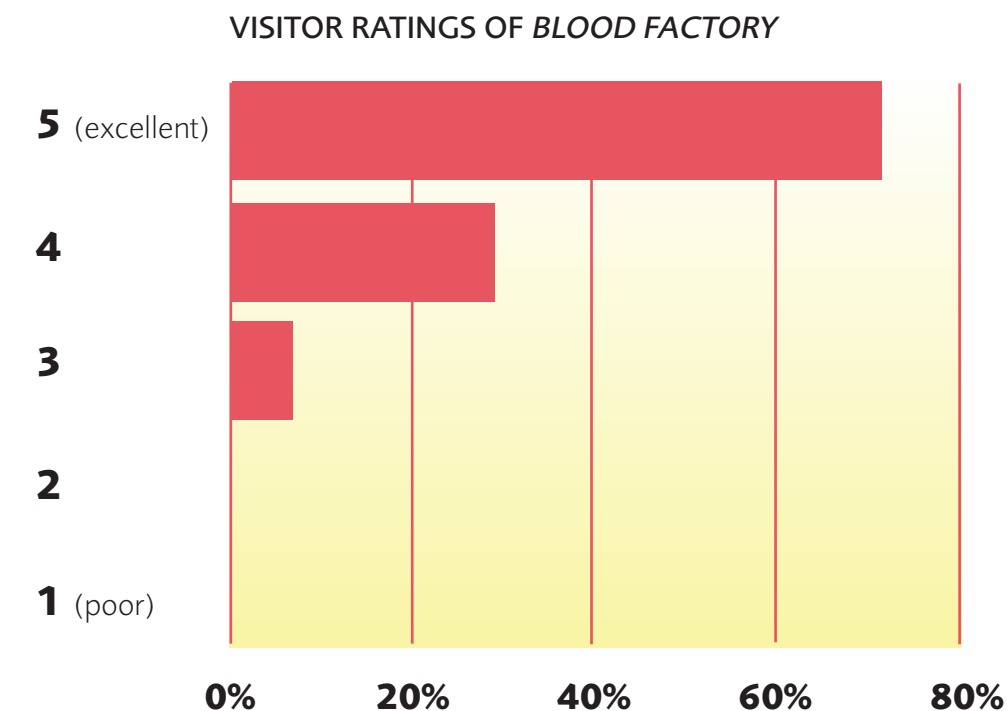
55 (10% - 25% response rate).

#### Type of response:

Quantitative.



**Synthesis:** Responses were recorded in a frequency table to illustrate the number of responses rating experiences of the activities, from poor to excellent, then illustrated as a bar chart:



#### What did the results tell us?

The *Blood Factory* was very well received by the majority of visitors, with 67% rating the activities as excellent.

**Top tips and reflections:** This was a simple method to ask visitors to quickly sum up their perceptions of an activity. The facilitator attracted the visitors' attention as they exited the room, and this light-touch questioning worked well as it required a very short period of time for a response.





# EVALUATION ACTIVITY FOR DEBATES

## Evaluation tool: Love hearts

### Description:

This event was a panel and public debate at the *Weston Library*, involving a series of pitches from Oxford researchers from different disciplines on the question of 'What is love?' followed by audience participation and live debate. As the audience left the debate, visitors were asked to place a card with a heart on it in one of two boxes (Yes and No) to indicate if they had changed their mind about love.

### Resources needed:

Designed mini-cards, Yes and No boxes.

### Outcome/impact to explore:

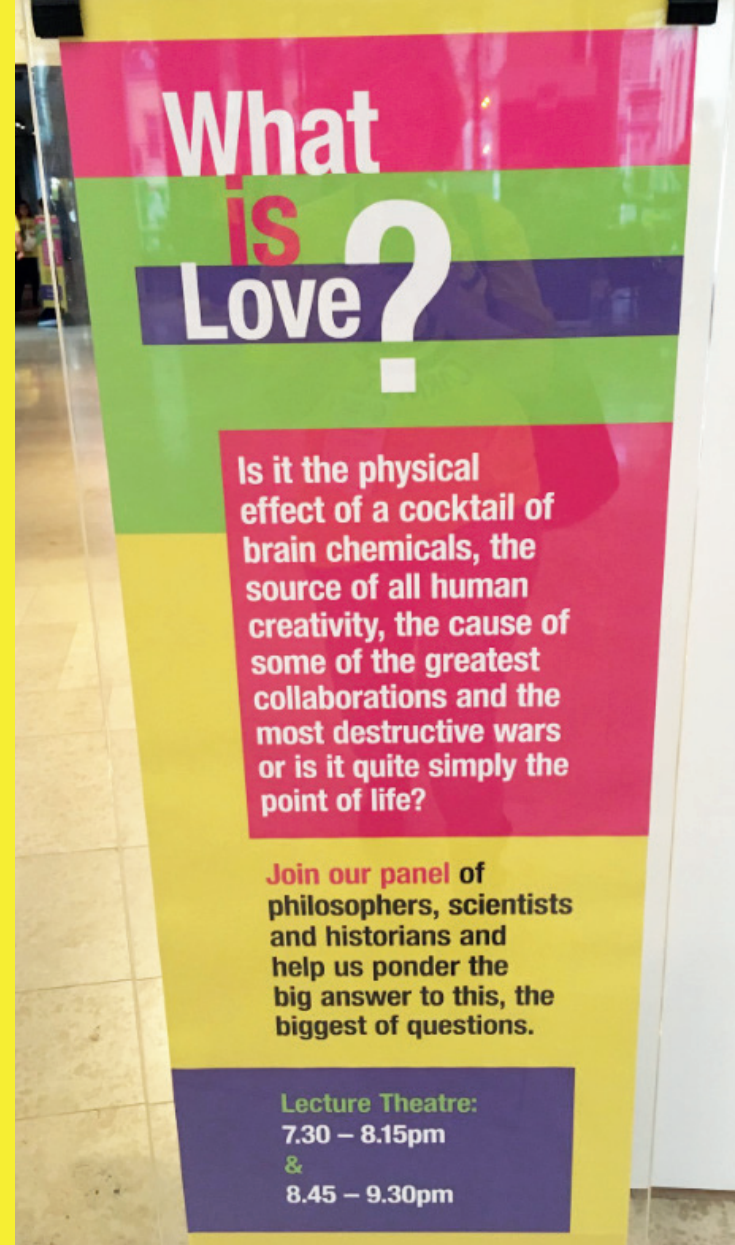
Changes in perceptions.

### Response level:

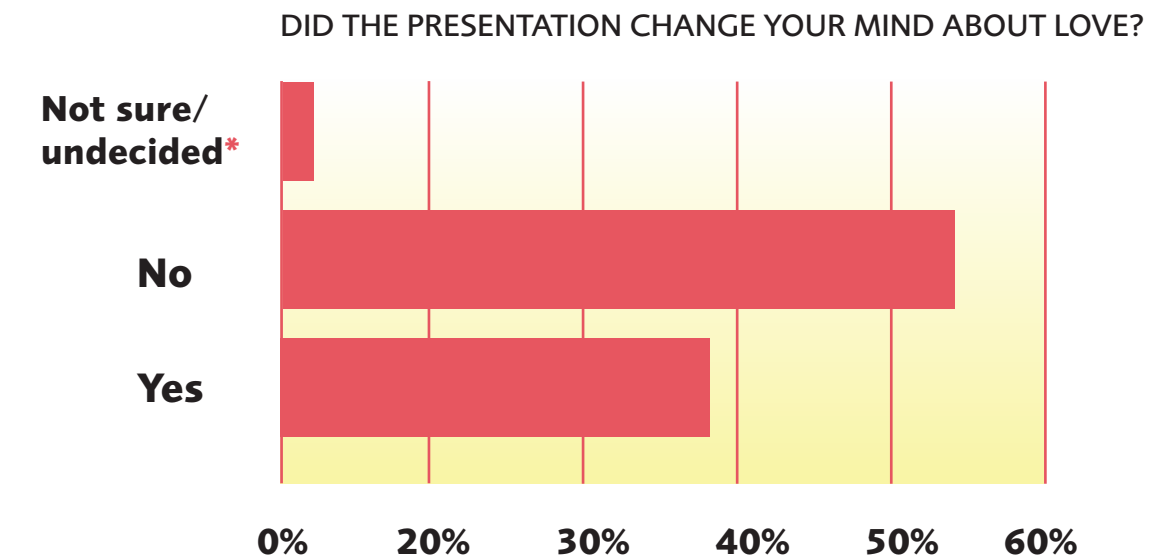
93 (75% - 100% response rate).

### Type of response:

Quantitative.



**Synthesis:** The number of hearts in each boxes was counted, collated in a spreadsheet and illustrated in a bar graph:



\* One respondent split the card in two and placed a piece of the card in both boxes

**What did the results tell us?** At the end of the *What is Love?* debate, the majority of visitors did not report a change in perception or remained undecided about love. There was still some change in perception, with 42% reporting they had changed their minds about what love is.

**Top tips and reflections:** This was a simple and effective feedback activity that elicited a high response level and provided some evidence on whether the participants had changed their perceptions or not.





# IN SUMMARY

## Top tips for evaluation

- For short one-off engagement activities, evaluation tools can be light-touch, designed to feel part of the activity, and effective at generating useful data and evidence to use.
- Evaluation does not have to be complicated and should be commensurate with the size of the engagement activity.
- Evaluation should be thought about when planning engagement activities, and not at the end.
- Evaluation tool(s) need to be designed to be accessible and appropriate for your target audience; and data collection procedures need to follow appropriate ethical and data protection standards.
- Don't just look for success, look for failure as well. Evaluation is intended to be a process to understand the outcomes and impacts of a project and to reflect on changes that can be made to improve activities in the future.

This booklet provides a selection of tools and activities that can be used for similar 'inform & inspire' type engagement activities. Furthermore, we recommend that you fill in the following evaluation planning template before selecting which tool to use.



# PLANNING A STRAIGHTFORWARD EVALUATION

This template (pages 25-27) can be used to plan an evaluation for your own Public Engagement with Research activities or events that aim to inform and inspire the public.

## 1. Aims and objectives of your Public Engagement with Research activity

What do you hope to achieve through your activity/ project? These objectives should be SMART (Specific; Measurable; Achievable; Relevant; Timebound).

---

---

---

---

---

---

---

---

---

---

## 2. Outcomes and impacts

What are the anticipated outcomes (benefits or changes) and impacts (longer term effects, influences or benefits) on the public as a result of engaging with the activity?

I.e. what is it that you want your public audiences or participants to 'take away' from their engagement with you/ your research? For example; learning, enjoyment, changed behavior, gained skills.

---

---

---

---

---

---

---

---

---

---



# PLANNING A STRAIGHTFORWARD EVALUATION

## 3. Evaluation questions

What do you want to find out through the evaluation? Recommend between three and five questions.

---

---

---

---

---

---

---

---

---

---

## 4. Evaluation tool(s)

What approach and methods will you use to gather the data and evidence needed to report on the key metrics, outcomes and impacts and to answer your evaluation questions?

Other questions to consider:

Who do you want to include in your evaluation (i.e. your sample)? How can you reach them? What evaluation tool(s) would work best for your engagement activity? Who will carry out the evaluation? Do the data collection procedures follow appropriate ethical and data protection standards?

---

---

---

---

---

---

---

---

---

---

# PLANNING A STRAIGHTFORWARD EVALUATION

## 5. Synthesising the data

Who will be responsible for synthesising the data? How will you synthesise the data (using quantitative/numerical or qualitative methods)?

---

---

---

---

---

---

---

---

---

---

## 6. Resources

What resources do you need to carry out the evaluation? Are there any evaluation costs required? Who will develop the resources?

---

---

---

---

---

---

---

---

---

---



# FURTHER INFORMATION

## **Public Engagement with Research at the University of Oxford**

*Curiosity Carnival* was part of the European Researchers' Night that took place in September 2017. In addition to this project being public-focused, it also provided an opportunity for hundreds of researchers and staff from the University of Oxford to explore and learn about Public Engagement with Research and to gain practical experience.

This project is part of a much wider building capacity programme at Oxford, that aims to equip researchers with the skills, knowledge, experience and support to plan and deliver high-quality Public Engagement with Research activities. For further information, see: [www.ox.ac.uk/research/public-engagement](http://www.ox.ac.uk/research/public-engagement)

## **For more support on evaluating Public Engagement with Research at the University of Oxford;**

- See the current training opportunities; [www.ox.ac.uk/research/public-engagement/support-researchers](http://www.ox.ac.uk/research/public-engagement/support-researchers)
- Contact **Annaleise Depper** (Evaluation Officer, Public Engagement with Research) [publicengagement@admin.ox.ac.uk](mailto:publicengagement@admin.ox.ac.uk)

## **Other evaluation resources**

There are many evaluation techniques available, in addition to the ones showcased in this booklet, and a number of guides, toolkits and resources to help you evaluate engagement activities, including:

- The National Co-ordinating Centre for Public Engagement (NCCPE) has a range of helpful resources: [www.publicengagement.ac.uk/do-engagement/evaluating-public-engagement/evaluation-resources](http://www.publicengagement.ac.uk/do-engagement/evaluating-public-engagement/evaluation-resources)
- The University of Southampton have developed an online evaluation toolkit: [www.southampton.ac.uk/per/2017/evaluation-planning.page](http://www.southampton.ac.uk/per/2017/evaluation-planning.page)
- A more in-depth guide for researchers seeking to evaluate Public Engagement with Research activities: [www.qmul.ac.uk/publicengagement/goodpractice/evaluation-toolkit/](http://www.qmul.ac.uk/publicengagement/goodpractice/evaluation-toolkit/)

# ACKNOWLEDGMENTS

## **Many, many, many people played a part in making this large-scale University-wide project happen, and hence who made this Little Book of Evaluation Tools possible.**

*Curiosity Carnival* was coordinated, developed and delivered by over 100 staff from across the University of Oxford, in particular from the Ashmolean Museum; Bodleian Libraries; Botanic Gardens & Harcourt Arboretum; Department for Continuing Education; Gardens, Libraries & Museums (GLAM); Humanities Division and The Oxford Research Centre in the Humanities (TORCH); Mathematics, Physical & Life Sciences Division and Oxford Sparks; Medical Sciences Division; the Oxford Museum of Natural History; Museum of History of Science; Pitt Rivers Museum; Public Affairs Directorate (PAD); Research Services; Social Sciences Division; Widening Access & Participation and Wytham Woods. And over 500 researchers and professional services staff from many different departments and faculties, took part in developing and delivering over 150 engagement activities.

The evaluation and impact assessment for *Curiosity Carnival* was developed and delivered by Dr Frankie Wilson (Head of Assessment, Bodleian Libraries) in partnership with the Impact Working Group members from the Academic Divisions; GLAM; Oxford Brookes University; PAD and Research Services; with the assistance and support of IRN Research.

This *Little Book of Evaluation Tools* was authored by Dr Annaleise Depper, Evaluation Officer, Public Engagement with Research, Research Services and Dr Lesley Paterson, Head, Public Engagement with Research, Research Services and *Curiosity Carnival* PI and Senior Project Manager.

Thank you to the many thousands of young people and adults that engaged with the activities of *Curiosity Carnival* and in particular to those who gave their time and feedback to take part in the evaluation activities - you are indeed all 'VIPs' (Very Informative People).

Thanks also to Oxford Brookes University and MRC Harwell for their participation in this project. This European Researchers' Night project was funded by the European Commission under the Marie Skłodowska-Curie actions.



Photos: copyright - University of Oxford;  
credit - Ian Wallman









UNIVERSITY OF  
OXFORD

