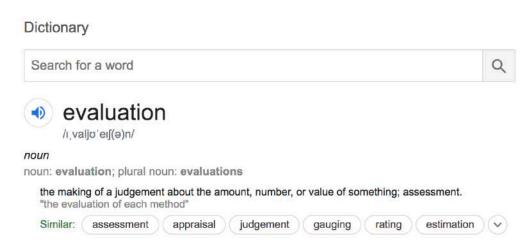


Can I ask you a question? A guide to evaluation

1







Evaluation is the term we apply to a range of processes that allow us to gather evidence to better understand what we've done. If we evaluate something correctly it will give us all we need to report back on our achievements as well as helping us develop and improve in future.

This guide will take you through the evaluation process from beginning to end. It will show you how to develop your own evaluation plans to record your own engagement journey



Contents



1. Evaluation Planning

The steps to create a robust evaluation plan

2. Evaluation tools

The methods of collecting data

3. Dealing with data

Making comments make sense

4. Popping the question

Ensuring your questions will give you reliable answers

5. Reporting and examples

The key questions you need to answer in a report and evaluation examples





Why Evaluate?

C

Good evaluation takes time and effort but it brings many rewards. Here are some of the reasons you might want to evaluate your project.



Evaluation reason	Description
Demonstrate success	Gather data to show you have achieved your aims
Give participants a voice	Listening to people's experiences, needs and interests
Improve provision	Knowing what didn't work (and why) helps for next time
Understand participants	Learn who was (and wasn't) involved and why.
Monitor change	Record the outcomes of your work
Inform direction	Decide on strategic direction going forward





Why evaluate?

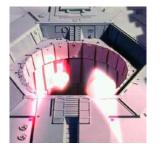


The starting block for every evaluation plan is the project aim. What are you trying to do? What will you be able to show that proves you have achieved it.

Star Wars: An evaluation plan



Aim: This project aims to blow up the Death Star



Project method: Torpedoes fired into exhaust port



Marker of success: Death Star is destroyed



Evaluation method: Direct observation





2

Evaluation planning

Creating your evaluation plan step by step



Evaluation process



We can tackle evaluation in a step by step process to make sure we are capturing the information we need to tell the story of what we are doing.

Aim Outcomes Markers Measure Methods

First we start with our project and what we are trying to achieve and develop a clear Aim and relevant Outcomes. We then think about what our Markers of success would look like and how we go about Measuring them. Finally once we know what we need to ask we can think about the Method we will use to ask it.



Aims and Outcomes



Let's explore the aim of your project and the elements which will help to make it a reality. For this section we will start of with some definitions.

Aim:

The overall purpose of the project, an Aim can usually be broken down into several smaller Outcomes which you hope to achieve.

Outcome:

An Outcome is something which is different because of your project. These are normally achieved through Outputs. E.g. changes in knowledge, understanding or behaviour.

Output:

Products of the project. The events, publications, meetings, artwork, performances etc.

Impact:

The over all result of the project. If all has gone perfectly to plan this will be the realisation of your Aim. The Aim is what you hope will happen and the Impact is what has happened.

Aim

Outcomes

Markers

Measure



Aims: Example

Let's look at an example. Here will will look at a project engaging schools with a science project.

Aim:

To inspire children to pursue careers in science.

Outcomes:

- Pupils to have an enhanced understanding about career pathways in science
- Pupils feel more confident discussing science topics
- Pupils feel more positively about science as a subject

Outputs:

Classroom workshop. School trip to university. Classroom activity pack for teachers

Impact (the story we tell after the events and evaluation):

Following the series of interventions pupils indicated that they were more inclined to pursue science post-school. At the end of the project 54% (n = 74) of pupils involved indicated an interest in a science based career opposed to just 27% pre-intervention.

Aim

Outcomes

Markers |

Measure





Markers of Success

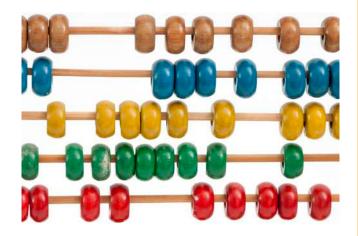


Once we know what we are setting out to do we need to decide how we will know if it has worked. We need to pair our Outcomes with Markers of Success.

Markers of success are used to demonstrate that an outcome has been achieved. Often the markers will be very closely related to the the intended outcome. There might be one marker for an outcome, or there might be several markers.

Example 1: If your intended outcome was to "make people aware of an issue" then your marker might be simply be the number of people made aware.

Example 2: If your intended outcome was to "increase child literacy rates" then you might have several markers which collectively demonstrate success such as higher reading level, more books read, increased confidence in reding, increased use of school library usage figures.



Aim

Outcomes

Markers

Measure



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Example: Markers

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Let's stick with the example from the previous slide, inspiring pupils.

TRY IT: Before moving on write down what would evidence that you have been successful in achieving your outcome.



Outcome Marker of success Pupils to have an enhanced understanding about career pathways in science Pupils feel more confident discussing science topics Pupils feel more positively about science as a subject

Markers

Example: Markers

U

Answer: There is no fixed number or type of success marker. The markers are normally very closely related to the Outcome, but are written in a more measurable way.



Outcome	Marker of success
Pupils to have an enhanced understanding about career pathways in science	Following the interventions pupils will be able to articulate more science career paths than they were before.
Pupils feel more confident discussing science topics	Pupils have a higher confidence level in talking about science topics than before.
Pupils feel more positively about science as a subject	Most pupils feel more positive about science than they did before the interventions.

Aim

Outcomes

Markers

Measure



Measures



Now we have the Markers of Success that we are looking for we need to think about what we need to Measure. This will almost always involve asking questions and recording data. Here we explore what data you might want.

Measuring change: If you want to measure a change in something (e.g. knowledge) then it is best to gather some data before and some data after – this way you can show that you have caused something to change.



Measuring satisfaction: If you want to know if someone enjoyed something or not than you can ask them at the end. A common way to do this is to ask them to agree or disagree with statements like "I found this event interesting"

Measuring metrics: The easiest thing to measure is the outputs – how many events were there? How many people did you interact with? How many people registered to get more information?

Aim

Outcomes

Markers

Measure





Example: Measures



Marker of success	Measures of success
Following the interventions pupils will be able to articulate more science career paths than they were before.	 Ask pupils before and after the event what careers people who study science might have Get pupils to draw pictures of the places scientists work before and after workshops
Pupils have a higher confidence level in talking about science topics than before.	Measure the level of agreement with the statement "I feel confident talking about science" before and after the interventions.
Most pupils rank themselves as feeling more positive about science than they did before the interventions.	Pupils rank themselves higher on a positivity scale following the interventions.

Aim

Outcomes

Markers

Measures

Vlethods



Methods
an is working out the Methods

The next step in an evaluation plan is working out the **Methods** that you will use to capture your measurements. Decide how and when the information will be captured.

There are a lot of different ways to capture and record information. Choose a method which:

- Will give you the type of data you need
- Is suitable for your audience
- Doesn't negatively effect the audience experience
- Is proportionate to your intervention

The best evaluation methods are often when it is built in as part of the engagement process itself.

You will find more information on different methods to choose from, as well as their advantages and disadvantages in the **Evaluation Tools** section



Aim

Outcomes

Markers

Measure



Example: Methods



Measures of success	Methods
 Ask pupils before and after the event what careers people who study science might have Get pupils to draw pictures of the places scientists work before and after workshops 	 Survey delivered by teacher 2 weeks ahead of visit and again 2 weeks after Drawing activity before & during visit
Measure the level of agreement with the statement "I feel confident talking about science" before and after the interventions.	 Pupils add sticky dots to a poster indicating their confidence level. This is carried out before and after the visit.
Pupils rank themselves higher on a positivity scale following the interventions.	 Part of the survey given to teachers for pre and post delivery.

Aim

Outcomes

Markers

Measures

Evaluation Plan



۹im

What you are trying to achieve overall?

Outcomes

What you hope will result from your project?

Markers

What evidence that your Outcomes have been realised?

Measures

What do you need to ask or record to get those Markers?

Methods

How will you go about capturing the data you need?



3

Evaluation tools

What formats can be used for capturing data



1. Voting stations

Ask your audience a question and get them to put tokens/stickers/counters in place indicating their answer.

This will give you quantitative data and is useful for simple questions about knowledge or opinions.

Tip: Keep the answers hidden until people have voted, then reveal how others answered

Good points:

- Interactive, the evaluation is part of the activity
- Easy to obtain data



- If people can see how others have voted it may skew answers (they give the answer they believe you expect)
- Limited questions and limited answer options.







2. Graffiti walls

Sheets are put up on walls and people are invited to write or draw answers.

A nice variation of this is drawing a tree on the wall and too this people add cut out leaves on which they have written their answer.

This gives you qualitative data which will have to be interpreted later.



Good points:

- Interactive, the evaluation is part of the activity
- Huge variety of thoughts and opinions can be captured
- Visually interesting

- If people can see how others have voted it may skew answers (they give the answer they believe you expect)
- Will take time and effort to analyse the responses





3. Comment cards

Post cards are either given out or placed at a feedback station. On the cards you can have a mix of quantitative and qualitative questions.

You might ask people to display their answers on a board or post them anonymously in a box.

Make sure to provide clear instructions as well as pens and pencils if using comment cards.



Good points:

- Can get a mix of quantitative and qualitative data.
- Relatively easy to organise
- Can be stand-alone

- Limited space means limited questions
- It may be more challenging to get people to fill them out.
- The data will have to be analysed.



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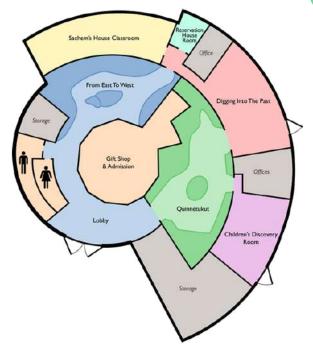
Evaluation Tools

4. Visitor tracking

This is used by museums and science centres. A visitor (selected at random) is shadowed around the venue with their movements. Other places have issued visitors with tracking devices.

Good points:

- This shows you where high traffic areas of your venue are.
- Dwell time shows the areas people show interest in



- Ethically complex
- Doesn't tell you why people behave the way they do.





5. Live voting

If you are giving a talk to an audience you could introduce live voting. Tools like Kahoot or Mentimeter can be used to ask your audience questions to which they answer using their phones.

This is a great way of breaking a long talk up and allowing a way to instantly get the thoughts/knowledge/opinions of very large audiences.



- Can get a mix of quantitative and qualitative data.
- Turns a talk into a participatory experience
- School are often familiar with it



- Requires audience to have a phone and internet signal
- Relies on technology working



6. Vox pop

Deriving its name from the Latin for "voice of the people" a vox pop is a short interview with someone. Radio and TV news use them regularly where they ask the public what they think of an issue.

You can film or record the public's answers to questions. Or have them write a word or phrase and photograph them holding it.

Good points:

- It can be a conversation so you can ask for extra info or clarification.
- Can give you a video/podcast as a follow up output.



- There are additional permission issues associated with storing and using someone's image and voice.
- Not everyone will be happy to be recorded so will get self selecting sample





7. Social media data mining

Encouraging your audience to use a hashtag can allow then to join in with an event and share their opinion.

If you want people to tweet about the event then you must encourage them to do so. Have hashtags on every slide and program and remind people that you want them to tweet.



You can even display the tweets coming in on a screen but you may want to have someone curate the tweets that appear.

Good points:

- Gives added reach to your event.
- There are various platforms to help you calculate your online impact

- It is debatable as to whether it is ethical to use peoples tweets as data without their explicit permission.
- There isn't the same control over questions asked as in other methods





8. Survey

One of the most common, traditional and formal forms of evaluation.

If you ask people to register online you can link then to a survey before the event. You can also email out a survey after your event if you have their contact details and permission.

Response rates can be low, to improve this have people deliver the survey in person. Have people to approach visitors and go through the questions with them. Using a tablet for this can speed up analysis

Good points:

- Gives added reach to your event.
- There are various platforms to help you calculate your online impact

- It is debatable as to whether it is ethical to use peoples tweets as data without their explicit permission.
- There isn't the same control over questions asked as in other methods





9. Reviews/ expert testimony

While an individual testimonial from a member of the public may not be viewed as representative the opinions of professional reviewers can carry more weight. If someone has a professional position of oversight – where they can compare your work to other similar examples the may be able to provide an expert testimony.



Contact reviewers, museum directors or anyone who can compare your work to what has gone before and ask them to provide their thoughts on how your project went.

Good points:

- Can be useful for reporting
- Involves just a single response
- Can be organised after the event

- It might be assumed that the testimony is biased
- Can't speak to the changes fostered in the public, only the quality of the intervention.





10. Photographs

Professional photographs can add flavour to a report. While they can't speak to the overall quality of the event they can be used to show how busy the event was.

Top tip: Use photos to show a diversity of interactions. Where lots of different activities and interactions are happening at once. le two children playing a game while an adult has an interaction with a researcher.



Good points:

- Can be useful for reporting
- Gives an insight into the event for those who didn't attend.

- You need permission to store and use someone's image.
- Doesn't give analytical data



4

Dealing with data

What are you capturing and what does it mean?



When we are asking for and using people information we need to make sure we are being ethical with our data use. Some rules to follow.

- 1. Only ask for the data you need and will use
- 2. Tell people how the data will be used.
- 3. Tell people who has access to their data
- 4. Tell people how long you will store the data
- 5. Give a contact email if people have questions
- 6. Make sure people understand if it is possible to have their data removed
- 7. Consult your university ethics committee early for guidance and clearance as required.





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Dealing with data



There are two types of data in evaluation:

Quantitative data: this deals with numbers. It gives use statistics to report like "53% of visitors travelled less than 20 minutes to be at the event". If we ask "Have you been to this event before? Yes/No/Don't Know" we will get a numerical, quantitative answer.

Qualitative data: deals with concepts, ideas and expressions and is descriptive. Qualitative data arises when we ask people to write or draw their answers. This allows respondents to go beyond the ticking of boxes and give a rich and full answer. The downside is that qualitative requires interpretation.

Eg "What comes to mind when you think of research?" is a qualitative question.







Quality Qualitative

As you don't need to give set answers (like with quantitative questions) you can ask bigger, broader conceptual questions. Let's say you ask 100 visitors to write or draw what their perfect day would look like. You then end up with 100 post-its with different words, phrases and images on them. To turn this into meaningful data we need to code the responses.



Thematic Coding

To work out what the data is show us first we read through the responses. Then from out first impressions we make some categories. Let's say we noticed lots of answers about: family, holidays, adventure, pets and food. These will be out first themes. We then go back through the responses and put them into one (or more) of these themes.

We keep sorting, resorting and adding categories until our data is sorted and we can answer the question. When visitors were asked to think of their perfect day the most common response was a day spent with family with 61 % (n=61) articulating a response involving time with relatives eg one said "It's a day spent with my wife & son"



-

Dealing with data



Quality Qualitative

As you don't need to give set answers (like with quantitative questions) you can ask bigger, broader conceptual questions. Let's say you ask 100 visitors to write or draw what their perfect day would look like. You then end up with 100 post-its with different words, phrases and images on them. To turn this into meaningful data we need to code the responses.



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We keep sorting, resorting and adding categories until our data is sorted and we can answer the question. When visitors were asked to think of their perfect day the most common response was a day spent with family with 61 % (n=61) articulating a response involving time with relatives eg one said "It's a day spent with my wife & son"







TRY IT: Visitors were asked "what comes to mind when you think of chemistry?" and the responses are written below. Look for common themes then sort the data into categories. What do people think of when they think of chemistry?

The periodic table	Medicine	Oh I don't know
Mrs Page, she was a great teacher	About whether people get on, love and attraction	I was never any good at it in school
Experiments and things	Experiments, white coats	People that make drugs to
Oh I hated it, all the symbols and things. My teacher was awful	Its to do with those big names on medicine packets. Oxybiotic hydrogen.	It takes me right back, I think about playing with mercury in my old classroom. No health and safety then.
I never took it as a subject I did biology GCSE instead	It's a science and has lots of beakers and flasks	It's all about chemicals. It's quite dangerous really.









Answer: We need to identify the common themes. At first glance many seem related to school memories so let's give all school related answers a colour.

Reactions and testing chemicals	Medicine	Oh I don't know
Mrs Page, she was a great teacher	About whether people get on, love and attraction	I was never any good at it in school
Experiments and things	Experiments, white coats	People that make drugs to
Oh I hated it, all the symbols and things. My teacher was awful	Its to do with those big names on medicine packets. Oxybiotic hydrogen.	It takes me right back, I think about playing with mercury in my old classroom. No health and safety then.
I never took it as a subject I did biology GCSE instead	My favourite school subject!	It's all about chemicals. It's quite dangerous really.









Answer II: Lets also colour code the other themes that emerged: Medicine and Experiments. We leave two answers as uncategorised as they don't seem to match with any other common themes.

Reactions and testing chemicals	Medicine	Oh I don't know
Mrs Page, she was a great teacher	About whether people get on, love and attraction	I was never any good at it in school
Experiments and things	Experiments, white coats	People that make drugs to help
Oh I hated it, all the symbols and things. My teacher was awful	Its to do with those big names on medicine packets. Oxybiotic hydrogen.	It takes me right back, I think about playing with mercury in my old classroom. No health and safety then.
I never took it as a subject I did biology GCSE instead	My favourite school subject!	It's all about chemicals. It's quite dangerous really.







Dealing with data



Answer III: Now we can answer the question more fully. When visitors were asked what comes to mind when they think of chemistry the most common answer given related to school memories with 40% (n=15) talking about classroom experiences. For example one respondent said "My favourite subject at school!". Around a quarter mentioned experiments while the third most common answer related to medicine (20%).

Answer IV: There is a lot more we could do with this data too. We could look at wither people were giving us positive, negative or neutral answers. The beauty of qualitative data is that there are often many things we can learn from the answers to just one question.





5

Popping the question

How to prepare a question people can answer





When it comes to asking a question we need to be sure it is something which is easily answerable to the respondent. This section will give you a check list to ensure your questions work.

Follow the evaluation CARES rules:

Clear
Answerable
Relevant
Equally weighted
Singular

Jamiebgall.co.uk







Clear

Answerable Relevant Equally weighted Singular Questions must be easy to understand.

- Do you think its not really important to be in favour of protesting the new runway?
- Do you think it is important to protest the new runway?







Clear Answerable Relevant Equally weighted

Singular

Questions must be within the ability of respondent to answer reliably. Narrow the question and ensure it is something people are likely to know.

- How many vegetables have you eaten in the past 4 months?
- On average how many portions of vegetables do you eat a day? (where a portion is 200g e.g. ½ of beans)



Evaluation Cares



Clear Answerable Relevant Equally weighted Singular The data you gather should be important to you. You only get to ask people a few questions so make them powerful ones that you will act on.

- How was the catering at today's event?
- <question should be related to your aim>







Clear Answerable Relevant Equally weighted Singular Ensure your questions are not bias. There is no need to invent scales for questions, google Likert Scales to find balanced answers for almost any multiple choice question.

- How would you rate the event?

 Excellent / Very Good/ Good / Acceptable / Poor
- How would you rate the event?

 Very Good / Good / Average / Poor / Very Poor





Clear Answerable Relevant Equally weighted Singular Don't use the word "and". Any time you use the word "and" you are likely to be asking two questions.

- Do Microsoft and Apple take cyber security seriously?
- Do you think Microsoft take cyber security seriously? Do you think Apple take cyber security seriously?







Clear Answerable Relevant Equally weighted Singular



Final tip: Always, always include a "Don't Know" option, even for questions you think everyone has an answer to.







TRY IT: Using the evaluation CARES can you tell what is wrong with these questions?

Do you think the Prime Minister is portrayed accurately in the media?
 | | Yes | | No | | Don't know

2. When you take into account their low pay, short term contracts and huge skill set would you agree that PhD students are undervalued?
[] Yes [] No

3. Do you think the Conservatives and Labour parties doing enough to protect the NHS?

[] Yes [] No [] Don't know

-

Questions



TRY IT: Using the evaluation CARES can you tell what is wrong with these questions?

1. Do you think the Prime Minister is portrayed <u>accurately</u> in the <u>media</u>?

[] Yes [] No [] Don't know

Answer: It isn't Clear, what media? It isn't Answerable, how do we know what accurate is?

2. When you take into account their <u>low pay, short term contracts and huge skill set</u> would you agree that PhD students are undervalued?

[] Yes [] No _______

Answer: It isn't Answerable unless you know pay and contract situation. It isn't Equal, it has bias towards Yes. There also isn't a don't know option.

3. Do you think the Conservatives <u>and</u> Labour parties doing enough to protect the NHS?

[] Yes [] No [] Don't know

Answer: It is not Singular. NB: Adding "do you think" is a good way of asking something which someone might not know for a fact but may have an opinion on.



5

Reporting and Examples
Telling the story of your engagement impact

Narrative



Reporting is more than just presenting data, we need to tell a story of change. To help with that there are several markers to look out for along the way.

In this section you are presented with seven questions which it is useful to answer when reporting. You might be able to answer all of them, or maybe just a few. You only include the ones which are relevant to you.

When answering the questions you should use supporting evaluation data to back up your points.



Impact

Narrative

- 1. How has an opportunity presented itself?
- 2. What did you make or do that didn't exist before?
- 3. How many people interacted with you/it and for how long?
- 4. Did they have a positive experience?
- 5. Has there been a change in thoughts or knowledge?
- 6. Has there been a change in policy?
- 7. Has there been a change in behaviour?





Examples





Helen Featherstone @HFeatherstone - 19h

Replying to @Kimberley_F @JamieBGall and 9 others

It's not bunting, but it's easy and doesn't involve writing or talking. Stick a dot on the map to show where you live. This project wanted to reach 'all of Bristol' from this we could make something of a claim about reach across Bristol.





Kimberley Freeman @Kimberley_F · 23h

Replying to @cprthorley @JamieBGall and 8 others

Plus (although I am obviously biased), I like the fact we created a sticker challenge for young visitors to the @EngageQM Festival of Communities, which allows us to track interaction with stalls, and see which events are most popular. We've also experimented with bunting...







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Examples





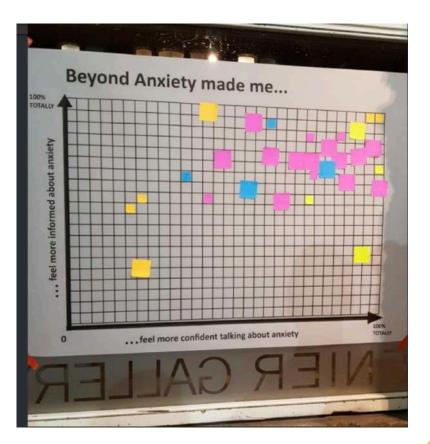
Following

Replying to @cprthorley @JamieBGall and 6 others

The brilliant @DrHelenStark asked people questions via a marble run at an event as part of Being Human (I think) when she was still based at Queen Mary...



8:06 AM - 20 May 2019



-

Examples





Dawn Smith @dsmith_edi · 19h

Replying to @cprthorley

Linking to the activity and making it interactive is key. I'm a big fan of paper plates and use them as part of art and craft sessions, matching other activities.





Replying to @cprthorley

This was tied to our outcomes and you can see we did better on some than others.



3:20 PM · May 21, 2019 · Twitter Web Client







Examples











Example survey layout:

Public Engagement Lunchtime Session Survey How info will be used The information from these surveys will be used to improve central support for Public Engagement. If you have any questions about this survey please contact Jamie Gallagher (Jamie.Gallagher@glasgow.ac.uk) Contact info 1. In which College are you based? (please tick) Clear instruction Arts Medical, Veterinary Social Sciences and Life Sciences Engineering 2. Have you previously attended any training or information sessions exploring Public Engagement at the University of Glasgow? This could include School seminars, conference sessions or formal training. (please tick) Yes No Don't know Include Don't know 3. We are planning a half day "Public Engagement with Research" Conference at the University in Glasgow on 24th August, would you be interested in attending? Yes No Don't Know (Topic dependant) Don't Know (Date dependant)

Standard Scale 4. How would you rate the following aspects of today's event? (please tick)

	Very Poor	Poor	Neutral/ Average	Good	Very Good	Don't Know
Speaker	0	0	0	0	0	0
Organisation	0	0	0	0	0	0
Content of the talks	0	0	0	0	0	0
Time allocated to talk	0	0	0	0	0	0

Clear instruction (Please turn over for questions 5-7)

5. To what extent would you agree with the following statements (please tick) Standard Scale

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree	Don't Know
I now feel more confident in my ability to evaluate public engagement	0	0	0	0	0	0
The session was disorganised Include neg	gative s	tateme	nts	0	О	0
The session was too long	0	0	0	0	0	0
Public Engagement is valued by my Funder	0	0	0	0	0	0
Public Engagement is valued by the University of Glasgow	0	0	0	0	0	0
Public Engagement is valued by my Line Manager	0	0	0	0	0	0
I would attend future Public Engagement sessions	0	0	0	0	0	0

6. What do you think stops other researchers from the University of Glasgow engaging with the public? (please list)

1.	Use third person for negatively reflecting questions	
2.		
3.		

7. If there is anything else you'd like to tell us please leave it in the space below.

Always include an "anything you'd like to tell us" box