

Bringing new ideas to life

Research Communication – why it matters & how to do it

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Why communicate research?



Responsible & accurate portrayal of research Building your academic reputation in your field Inspire and encourage stronger presence of research in society Responsibility to the public as your stakeholder Makes you a better researcher

> "... when I talk publicly, I appreciate the need to step back and present the big picture, and in so doing put details into a larger context that is much more accessible – and much more memorable – for an audience. This has stimulated me to think about larger questions over the years and has influenced the directions of my research."

> > Nicholas Spitzer, co-director of the Kavli Institute for Brain and Mind at UC San Diego

Nature 150 year anniversary

Highlighting the plethora of multidisciplinary research collaborations



What are the benefits of research communication?



When researchers communicate more effectively, research thrives

More likely to collaborate with industry/receive funding from industry

It allows researchers to be better teachers and mentors for next-gen researchers

Impact & outreach are becoming increasingly important in research funding applications

> Communicating effectively beyond immediate peers builds support for your research area, promotes understanding of wider relevance to society & encourages informed decisionmaking at all levels

More likely to give significant talks at conferences/successfully network to build collaborations with other labs/research groups

Challenges faced by researchers



The "curse of knowledge" – when you know something really well, it is hard to remember what it was like not to know it.

Terms that have different meanings for researchers and the public		
Scientific term	Public meaning	Better choice
Enhance	Improve	Intensify, increase
Aerosol	Spray can	Tiny atmospheric particle
Positive trend	Good trend	Upward trend
Positive feedback	Good response, praise	Vicious cycle, self-reinforcing cycle
Theory	Hunch, speculation	Scientific understanding
Uncertainty	Ignorance	Range
Error	Mistake, wrong, incorrect	Difference from exact true number
Bias	Distortion, positive motive	Offset from an observation
Sign	Indication, astrological sign	Plus or minus sign
Values	Ethics, monetary value	Numbers, quantity
Manipulation	Illicit tampering	Scientific data processing
Scheme	Devious plot	Systematic plan
Anomaly	Abnormal occurrence	Change from the long-term average

Tool to help teach research communication



Toolkit sprint – series of short exercises to keep the participants engaged and get them thinking about their research in a different way

Rules:

- Participants are given a prompt to write these are intended as short "sound bites" of information that participants can takeaway and use in their everyday work
- 5 minutes to work individually, 5 minutes to discuss in a small group, 10 minutes to share with the wider audience

Benefits:

- Each prompt is brief, so if participants find it doesn't exactly fit their research, they can help someone else and move on in the next exercise
- Working in groups with multidisciplinary researchers getting someone else's opinion (from someone who is also very educated and intelligent is helpful)





Research question and the gap

Describe the research question you are trying to answer and how existing research doesn't answer it.

"Current research tools are unable to provide live imaging of these cells, so we don't know how XXX works. My research looks at compiling multiple snapshots over a period of time to create a timelapse showing XXXX." Scale of the problem

Important statistics that describe the size of the problem that you are solving.

"Only 1 in 10 people are diagnosed in the early stages."

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Why now

Why should your audience care that you are doing your research now?

"If we can categorise the changes in sea levels and temperatures, we can contribute to the development of new climate change strategies."





Gaddie pitch



A simple introduction that anyone can understand.

"You know how....

Well I'm researching....

In fact...."

Unique advantage

What is the unique quality about your research/situation that no one else has?

"We are the only research lab in Spain to have access to this telescope."



How far along are you in your research?

"We have tested our software on over 46 real 2D scans of retail properties. Our software reduced the average processing time from 6 hours to 17 minutes."

Reflection questions at the end



What was the most difficult part of this exercise?

- What was surprisingly easy?
- Where (in what types of situations) do you see this being particularly helpful?
- How would you use this in your everyday research life?
- How would you change the edits you made if the audience was a high school class?



Thank you

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Training & Professional Development