

Giving a good scientific talk

Never Stand Still

Faculty of Engineering

Plan

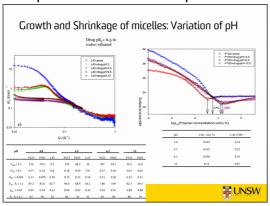
- Prepare your material carefully and logically. Know your audience and pitch the talk appropriately. Make sure they learn enough from you as the talk goes on to appreciate what it is you are saying and understand the conclusions you are drawing.
- Tell a story. The story should have four parts:
 - Introduction: should not just be a statement of the problem but it should indicate your motivation to solve the problem. You must also motivate the audience to be interested in your problem. Convince the audience that they care about your work. This also helps provide an overall shape (story).
 - Experimental Methods: includes your approach and the caveats. Short and simple. Include why you are adopting this method. What are the strengths and weaknesses of the techniques used.
 - Results and Discussion: a brief summary of your main results. Try and be as clear as possible in explaining your results - include only the most salient details.
 People will ask questions if they need more detail. Lead through the set of results in a clear fashion to tell your story.
 - Conclusions: condense your results and the a key conclusions that come from them. Be short and descriptive. Don't waffle on here, but do try to link back to your original motivations.
- Don't put in too much material. You only have a few minutes to describe what you've done and it's better to explain what you have done well than to gloss over lots of things and confuse your audience.
- Practise your talk. Practise it a few times. Practise it to the mirror, to a friend, to your pet dog. Make sure you know what is coming next in the presentation so that you can tell a smooth and coherent story.
- Make sure you stick to your allotted time. (Practice your talk!)

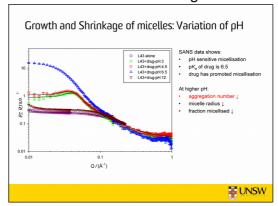
Visual aids

- With the exception of the title slide, each slide in your presentation will take 1.5 to 2 minutes to talk about.
- Avoid equations. They're probably not necessary and they're hard to interpret when thrown at the audience.
- For a short research talk (less than 30 minutes) you probably don't need any form
 of Table of Contents slide. Everyone knows you're going to give a talk that has an
 introduction, an experimental section, some results and conclusions. Don't waste
 your valuable time or risk putting your audience to sleep.
- If you have references to the literature in your methods or discussion sections, include the reference in abbreviated form on the slide where you use it. No-one is going to look at a slide-full of references at the end of the talk. Don't over-use referencing on the slides.
- The visual aids are a graphical assistance to your explanation. They're not notes to

you about what to talk about. No-one will read a wall of text on a slide (and if they are reading the wall of text, they're not listening to you).

- Good: images, plots of data, schematics, short dot-points of key concepts.
- Bad: wall of text, tables of results, long sentences.
- Spend time making sure the slides look good. A little time spent on alignment, sizing and consistency makes them look a lot better.
- Make good use of colour and hierarchical dot-points, but don't go mad with it. Be tasteful rather than distracting.
- Use a decent sized font. Some templates have crazily small or crazily large fonts look at how your slides look on your screen from the other side of your room.
- Compare these two examples that tell the audience the same thing:





Giving the talk

- Talk to the audience, not the projector screen or the computer screen (this is particularly easy to do if you've got a computer in front of you at the lectern).
- Don't talk to quickly! Particularly at the start of the talk when people are getting used to the sound of your voice, and trying to work out what it is you're talking about, be measured.
- When you need to point out a feature of the data on a plot, be deliberate in your gestures. Don't wave a laser pointer around wildly. Unless you're an experienced speaker, avoid laser pointers or big long sticks entirely. If the room is small enough, just point it out on the screen.
- You're talking about your slides. Don't read them out.
- Don't try hide behind humour, clip-art or Comic Sans font... it actually highlights weaknesses in what you are presenting.

Questions

- After the talk, people in the audience will have questions. Some will be really easy
 and some will be really difficult. Sometimes, people from outside your specific area
 will ask what they think is an easy question but it turns out to be much more difficult
 to answer.
- Make sure you understand what the question is actually asking before you start to answer. If you're not sure, repeat the question in your own words. Think about your answer before you launch into an explanation.
- Don't make up answers to things you're not sure about. You don't want to answer
 every question with "I don't know" but if you're making up nonsense, people know.
 (And if you don't know the answer, then try to make something positive out of your
 answer perhaps how you could find out.)