Crafting the Introduction to a Scientific Presentation:

Create a mystery box

CLIMB
Collaborative Learning and
Integrated Mentoring in the Biosciences

CREATING A DIVERSE COMMUNITY OF YOUNG SCIENTISTS

Steve Lee, PhD

CLIMB Program
Assistant Director
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Our CLIMB curriculum of workshops on communication in scientific research:

1) **Delivering scientific presentations and posters for impact:**
   Make it stick with SUCCESs

2) **Crafting the introduction to a scientific presentation:**
   Create a mystery box

3) **Communicating and collaborating across disciplines:**
   Use simple words

4) **Displaying visual evidence in scientific presentations:**
   Help viewers make valid scientific decisions

Why are we focusing on a 10-minute presentation to a broad audience?

- to stretch your communication skills with a tough challenge:

  - to explain your research concisely <u>and</u>

  - to engage a broad audience

- to help you collaborate across your fields

- to provide a brief presentation for all to practice

How do you set up your intro?

The traditional introduction is boring

- background
  - full of acronyms and jargon
  - definitions (maybe)

- question

- hypothesis

This is dry and does not engage the audience.

Instead, set up a scientific story for your introduction

- A story helps to connect with a broad audience
  - they won't be familiar with the context and jargon

- Set up a scientific story by creating a mystery box
  - Let's view JJ Abram's TED talk

How do you create a mystery box?

- help your audience to <u>imagine</u>
  - ex: a major problem will be solved with this new instrument

- explain why your research is <u>significant</u>
  - ex: the disease affects millions of people

- describe why your research is so <u>fascinating</u>
  - a unique or counter-intuitive research puzzle

Remember to address the *Curse of Knowledge*: make your ideas stick with SUCCESs

Simple: find and share the core message

Unexpected: get their attention – surprise or twist

Concrete: help people understand – be specific

Credible: help people believe – give evidence

Emotional: help people to care – inspire

Stories: share ideas to simulate and inspire

Communicate to inform and inspire

Inform

- concrete information
- visual and audio info
- details; raw data
- credible evidence

But, if you only inform, your talk may be:
- *dry or flat*
- *random details*
- *lack meaning*

Inspire

- significance
- stories & analogies
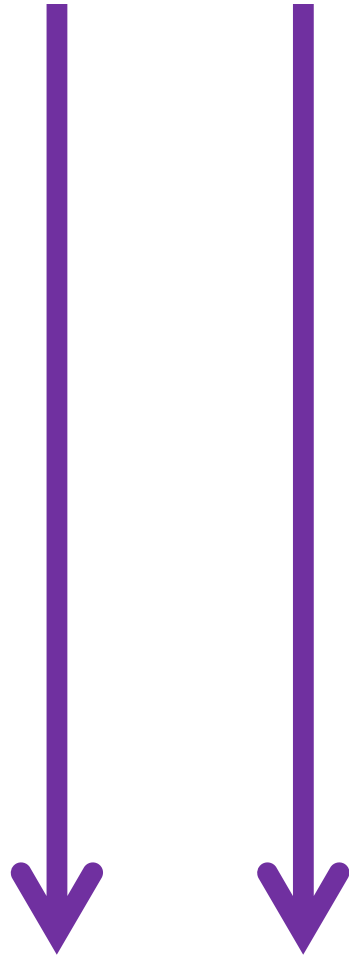- cast a vision for future
- big picture

But, if you only inspire, your talk may be:
- *vague*
- *ambiguous*
- *not concrete*

The challenge is to go broad *and* deep

speak to broad audiences: use analogies and illustrations

speak deeply:

use 1 or 2 examples for the experts

For slides: pay attention to these details

- plan for 1-2 min/slide

    o for 10-min talk: 5-8 slides

- maximize the "info to ink" ratio

- don't use serif fonts (e.g. Times New Roman)

- convert bullet lists into word tables (if possible)

- use message or question titles

Practice and get feedback

- pay attention to your physical stance

  - your posture affects your audience's *perception* of you

  - <u>and</u> your *performance* as well

- View Amy Cuddy's Poptech talk

- connect your spoken words with slides

- get feedback early and often

Your first practice: set up your intro

- select a research project with some results

- present your intro (few slides)

- explain up to your question and hypothesis

Scheduling

- Winter Quarter
  - Part 1: intro
  - Part 2: intro + design and methods

- Spring Quarter
  - Part 3: full presentations (videotaped)
  - individual mtgs for feedback