

An introduction to scientific oral presentations and posters: How to give presentations that “stick” to clearly inform and inspire your audience




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Outline

- Principles of Effective Communication
 - ideas that “stick”
 - using the Myers-Briggs types to understand different communication styles
- Some Practical Suggestions
 - types of presentations
 - tips for slides and posters
 - good and poor examples

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Part 1: What is a “sticky” idea?

- Chip and Dan Heath’s “Made to Stick”
- Exercise 1 – memorize as many letters as possible

- Exercise 2 – remember as much of the text as possible
- Between these pairs of examples, what features helped you to remember the letters and the text?

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Why is it so hard to communicate effectively? Because of **The Curse of Knowledge**

- Research at Stanford with tappers and listeners
 - tapper was given a popular song to tap out
 - listener had to guess the song
 - but beforehand, the tapper was asked to predict the % of songs that would be guessed correctly
 - tappers predicted: ~50%
 - actual: 2-3%
- Problem: those with the knowledge (tappers) are cursed with not understanding the audience’s (listeners) perspective

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Key Message #1:

- To effectively communicate our ideas, we can’t simply tell what we know.
 - telling ≠ effective communication
- Effective communication means that our audience understands, remembers and acts upon our ideas
- To effectively communicate, we need to transform our ideas to become sticky.

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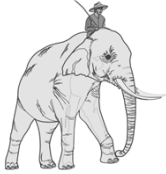
How can we communicate “sticky” ideas?

- A sticky idea is understandable, memorable and has a lasting impact to change thought and behavior
- Use as many of these 6 key principles as possible:
 - **S**imple – find and share the core message
 - **U**nexpected – get their attention; surprise or twist
 - **C**oncrete – help people understand and act
 - **C**redible – help people believe; credentials
 - **E**motional – help people to care; inspire; values
 - **S**tores – simulation; inspirational

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To communicate effectively, we need to: feed the rider and the elephant

- Chip and Dan Heath's "Switch"
 - rider
 - intellectual
 - information
 - data
 - S-types
 - elephant
 - intuition
 - inspiration
 - emotional
 - N-types



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Apply a broad mix of communication styles to reach a broad audience

- | | <u>Communication features</u> | <u>Potential problems</u> |
|----------------|---|---|
| S-types | <ul style="list-style-type: none"> ○ information ○ details of raw data ○ real experiences ○ visual and audio info | <ul style="list-style-type: none"> ○ dry or flat ○ random details ○ not meaningful |
| N-types | <ul style="list-style-type: none"> ○ inspirational ○ stories; visionaries ○ big patterns, picture ○ significance; analogies | <ul style="list-style-type: none"> ○ vague ○ ambiguous ○ not concrete |

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Part 2: Some Practical Suggestions Types of Presentations

Setting	Medium	Presenter	Audience
class	slides	individual	expert and non-expert; group
class	slides	team	expert and non-expert; group
lab group mtg	slides	individual	expert; group
poster session	poster	individual	expert and non-expert; individual
	video		
	discussion		

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How do you start?

- Key questions to ask about your audience
 - what do they already understand?
 - what do they care about?
 - what are you trying to convince them about?
- What are the few core messages that you want your audience to remember after your talk or poster?
 - prioritize your messages

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Tell a scientific story

- the classic elements of a story are:
 - thesis – intro characters, context, importance
 - antithesis – problem or question
 - synthesis – wrap up and conclusions
- set up your story with clear rhetorical markers
 - context and significance
 - complication
 - question or problem
 - hypothesis or proposal

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Creating Slides

- Plan to spend ~2 minutes per slide
 - 10 min talk: 5-7 slides
 - 60 min talk: 25-30 slides
- Maximize the "info to ink ratio"
 - provide the most amount of info
 - using the least amount of ink
 - example: full sentences are not usually needed, but write complete thoughts with verbs

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Additional tips and suggestions

- To avoid adding too much content in your presentation or poster, create extra slides or handouts for use afterwards.
- Organize experiments for clear communication
 - trials done in lab
 - trial A; trial B; trial C; trial D - successful
 - during a presentation
 - chronological order: A, B, C, D
 - logical order: D and then A, B, C (briefly)
 - don't drag the audience through useless information

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Delivery of your talk or poster

- Eye contact helps you to connect with your audience.
- If you often get very nervous, try memorizing your introduction. (see handout for more tips)
- Connect your spoken words with the images and text on your slides or poster.
- Engage your audience, if possible
 - ask questions, especially during posters

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Key Message #2:

Practice your presentation and get feedback early and often (the Chicago way)

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Resources posted in BlackBoard

- Chip and Dan Heath
 - Made to Stick
 - Switch
- “Making Oral Presentations: Dealing with Nervousness”
- “Creating Posters Using PowerPoint”

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Key Messages

- Transform your ideas to become “sticky” by using as many of these principles as possible
 - Simple
 - Unexpected
 - Concrete
 - Credible
 - Emotional
 - Stories
- Practice and get feedback – early and often

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