

Principles of Effective Communication

Lecture 14



Knowing the audience

- Clearly understanding your intended audience
 - Tailors the level of detail in your description of the project
 - Engages your audience without losing them or boring them
- Framing your project for a variety of ... helps you distill the project and understand it holistically
- Can you explain your project to:
 - Your teammates?
 - Your sectionmates?
 - Your classmates?
 - High school students?
 - Grade school students?

Accurately communicating a project to a general audience is the hardest!

Knowing the audience: specialized

- Teammates: help you getting the details right (appendix material)
- Sectionmates: understanding appreciating method details



Knowing the audience: quantitatively informed

- Classmates and the quantitatively literate: learning how a domain is approached with details
- Understanding the gist of methods used



Knowing the audience: educated, outside of field

- General audience with details (e.g. for high school students):
 - Understand the problem, context, and how it's approached with data
 - Details of the results and its broader implications



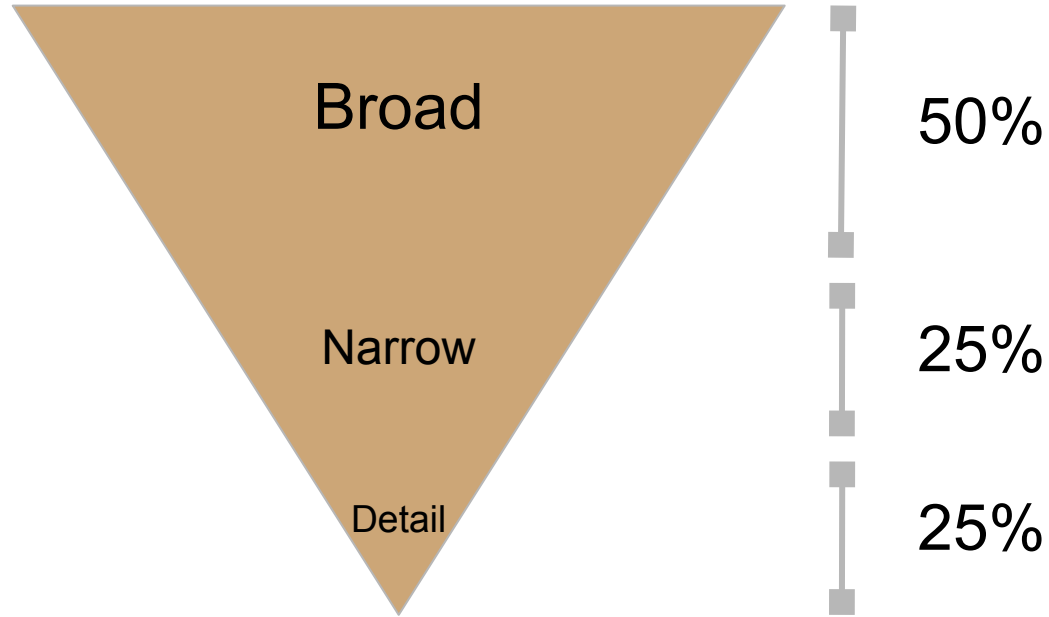
Knowing the audience: fellow citizens

- General Audience (news story; primary school)
 - Problem statement, understanding context, and broader implications
 - Broadly understand the result and its impact



Even specialists need context

- Spend more time on context than you think!
- Framing the problem being solved as relevant can make a “boring” result impactful!
- “Broad” depends on the audience!



Context-Content-Conclusion

Structure communication on complex topics through context-content-conclusion:

- Tell your audience what you are going to tell them (context)
- Tell your audience the information (content)
- Tell your audience what you told them (conclusion)

You understand the details of your project better than *anyone* else -- gently bring your audience along with you.

- Introduce the topic with *context*
- Explain the details of the work
- Reinforce the explanation, placing it back into context.

Demonstrating ... with examples

- Examples help illuminate points for all types of audiences
- Concretely places the point in context
- Always *explicitly* make connection between example and point being made
- Good examples take very little set-up and make point clear

Looking to other work as exemplars

- Details and norms of effective communication vary by field
- Look to your domain for guidance.
- Assignment:
 - Find two examples in your field of writing to a specialist
 - Find two examples in your field of writing to a general audience
 - Do the same for oral presentations.
- Map these exemplars to assignments this quarter.

Communicating well requires good understanding

- (Re)conceptualize the project repeatedly as you work on your project.
 - Continuously connecting work back to the big picture clarifies and broadens the impact of the work.
 - Continuously refining the context clarifies the importance of specifics and suggests new avenues of inquiry.
- Always think about how the problem may be approached from multiple directions.
 - A result is stronger and more robust when it's supported by an accumulation of broad evidence.

Exercise 1: communicate through specificity

- Specify the problem in concrete, testable terms and hypotheses
- Be critical of your model's internal consistency *and* broader applicability
- Qualitatively understand your hypothesis through examples!

If the problem in your project proposal hasn't been specified as a (narrow) testable hypothesis, expressible in mathematical language, *do it now!*

Exercise 2: write your results now!

Starting with your problem and testable hypothesis:

- Create idealized results (graphs and tables) that *clearly* describe the conclusion of your hypothesis.
 - Be specific (label your axes, get the scale 'correct', etc)
 - Create multiple sets of figures clear to different audiences
- Doing this will help clarify your experimental design, connect the result to broader contexts, and guide the implementation of your tests.
- Now, work backwards from these figures to plan out what's necessary to generate them! (Clearly, the numbers in the figure will change!)