Giving a research presentation

CSE 891, Sec 4, SS09

http://www.cse.msu.edu/~ldillon/cse891
Why present research orally?

◊ People retain best what they see and hear together
◊ Interest others in what you have done
◊ Provide intuition for easier understanding
◊ Requirement for PhD

http://www.onr.navy.mil/about/speaking_tips
Common misconceptions

◊ Good research speaks for itself
◊ Your audience is already interested
◊ Your talk should cover everything in the paper
◊ You should lose most members of your audience by the end of your talk
◊ The slides must be sufficiently detailed to be understood on their own
Speaker’s Rule-of-thumb

“Tell’em what you are going to tell’em. 
Tell’em. 
Then tell’em what you told’em.”

http://www.agu.org/sections/atmos/scientific_talk.html
Structure of a presentation

◊ **Introduction**: motivate problem (what, why)

◊ **Method**: your approach (how) and caveats

◊ **Results**: only salient or representative detail

◊ **Conclusion**: major take-away lessons (≤ 4!)
Structure of a presentation

◊ Introduction: **Tell’em what you’re going to tell’em.**

◊ Method: your approach (how) *and caveats*

◊ Results: only salient or representative detail

◊ Conclusion: major take-away lessons (≤4!)
Structure of a presentation

◊ Introduction: *Tell’em what you’re going to tell’em.*

◊ Method: *Tell’em.*

◊ Results: 

◊ Conclusion: major take-away lessons (≤4!)
Structure of a presentation

◊ Introduction: *Tell’em what you’re going to tell’em.*

◊ Method: *Tell’em.*

◊ Results:

◊ Conclusion: *Tell’em what you told’em.*
Structure of a presentation

◊ Introduction: Tell’em what you’re going to tell’em.

◊ Method: Tell’em.

◊ Results:

◊ Conclusion: Tell’em what you told’em.

◊ Future directions: Tell’em what you’ll do next.
Choose what to present carefully!

Deciding what key points to make:
◊ Consider your goal
  – Is it to motivate, inform, persuade, teach, ...?
◊ Consider background & expectations of your audience
◊ Consider how much time you have

Limit details:
◊ Only those needed to support your key points
◊ Favor intuition over details
Some organizational options

◊ Rhetorical
  – Questions and answers

◊ Logical progression
  – Give steps in a process
  – Time series: beginning to end, earlier to later, ...

◊ Compare and contrast

◊ From problems to solutions
Some organizational options

◊ Simple to complex:
  – Gradually build up to complex concepts

◊ Deductive reasoning:
  – From general principles to specific applications

◊ Inductive reasoning:
  – From specific examples to reach general principles or conclusions
Slides and overheads

◊ **Visual aids:** Reinforce, exemplify, clarify
   – Brief and concise (bullet lists, phrases)
   – Comprehensible and uniform

◊ **Need to be legible, clearly visible**
   – Sufficiently large font size (min. 18 pt)
   – Larger type for headings, smaller for sub-heads, ...
   – Uniform, bold typeface (plain fonts: arial, helvetica)
   – Left justify, leave ragged on right
   – Upper and lower case easier to read than all upper
Slides and overheads

◊ Use color for emphasis, distinction, clarity
  – Too many colors, unclear function is distracting
  – Use bright, contrasting colors

◊ Slide
  – Title—key point of slide (guide to presentation)
  – 2-3 subheadings/items of information
  – Avoid lengthy, flat lists of sub-points (introduce hierarchical structure)
Slides and overheads

◊ Avoid detailed algorithms, mathematical formulas, proofs
  – Abstract into key steps
  – Explain intuition, key insights
  – Animate effects of algorithm
  – Picture relationships between key concepts
  – If needed, give details in a handout

◊ Avoid clutter, crowding

◊ Limit number of slides (2-3 mins/slide)
Fielding questions

◊ Repeat the question before answering
◊ Respond simply, directly (stay on topic)
◊ If asked about something covered, can go back to slide (but don’t belittle questioner)
◊ Anticipate likely questions in advance and have a response ready (back up slides to help)
Fielding questions

◊ Don’t bluff
  − “I don’t know; I’ll have to look into that.”

◊ Keep your cool, be polite
  − Rephrase hostile question positively, answer it and move on
  − Do not enter into an argument: Offer to discuss further “off-line”

◊ Be polite and respectful
General tips

◊ Practice, practice, practice, practice, practice ...
◊ Talk to your audience, *not* the screen
◊ Make eye contact
◊ Do *not* read your slides
◊ Use humor (appropriately)
◊ Vary your tone and position
◊ Show (bridled) enthusiasm
◊ Smile!!
Thanks


◊ Mark Schoeberl and Brian Toon, “Ten secrets to giving a good scientific talk,” http://www.agu.org/sections/atmos/scientific_talk.html

◊ “Making effective oral presentations,” http://web.cba.neu.edu/~ewertheim/skills/oral.htm