How to prepare and give a research talk

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Purpose of a research talk

Is not to

- Impress the audience
- Tell them all you know about a subject
- Present every little detail of your work

Is to

- Give the audience a sense of what your idea/work is
- Make them want to read your paper
- Get feedback on your work

Preparation   Know your audience

- Who would be there?
  - Scientists expert in your field
  - Scientists not expert in your field
  - Students
  - Non experts
  - Who knows?
- Most likely a mix so have something for all

Preparation   Know your audience

- Keep in mind
    - They might be tired
    - They are thinking "Why should I listen?"
    - Non experts will tune off within 2 minutes
    - Experts after 5 minutes
- What can you do?

Preparation   What can you do?

- Earlymotivation rat

Preparation Use examples

Examples are your weapon to
- Motivate your work
- Illustrate the basic intuition
- Show your solution in action (baby problem)
- Highlight extreme cases or shortcomings

If you are running out of time cut the general case not the example

Preparation Where were you?

- People will get À y   È• $rpÐÀ 0

Preparation   Related work

- Be familiar with all related work
- Don't list each paper you read
- Mainly talk about results that are immediately related to what you did
- References at the end of the talk or better in the paper itself
- Acknowledge co authors (title slide)

Preparation Technical details

A fine line

- Present specific aspect that show the "meat" of your work
- Leave the rest out. If you were convincing they will read your paper
- Don't fill up your slides with lots of equations
- Prepare back up slides that has technical details to answer questions. Leave them at the end of the presentation

The presentation skeleton

- What is the problem
- Motivation and goals
- Relevant state of the art
- What is your key idea/contribution
- Why is your approach good/better
- What I want to do next
- Conclusion of the work

Preparing the presentation

- Less is more. Fill in with narration not words
- Use animation sparingly
- Use color to emphasize some points but limit to 2 or 3
- Be consistent! In the choice and use of color font size/type etc
- Use slide real estate appropriately

Slide layout   Bad

- Thispagecontainstoo manywordsfor a presentationslide. It isnot written in point form, makingit difficult both for your audienceto readandfor youto presenteachpoint. Althoughthere are exactlythe samenumberof pointson this slideasthe previousslide,it looksmuchmore complicated. In short, your audiencewill spendtoo much m⟨of͡hÎ z`2 ñH   written

Slide layout – Good

- Show one point at a time:
    - Will help audience concentrate on what you are saying
    - Will prevent audience from reading ahead
    - Will help you keep your presentation focused

Fonts Good

- Usea decentfont size
- Usedifferent sizefonts for main points and secons

Fonts   Bad

- If you use a small font, your   I f

Color Good

- Use font color that contrasts sharply with the background
  - Blue font on white background
- Use color to reinforce the logic of your structure
  - Ex: light blue title and dark blue text
- Use color to emphasize a point
  - But only use this occasionally

Color Bad

- Using a font color that does not contrast with the background color is hard to read
- Using color for decoration is distracting and annoying
- Using a different color for each point is unnecessary
    - Same for secondary points
- Trying to be creative can also be bad

Background   Good

- Use backgrounds such as this one that are attractive but simple

- Use backgrounds which are light

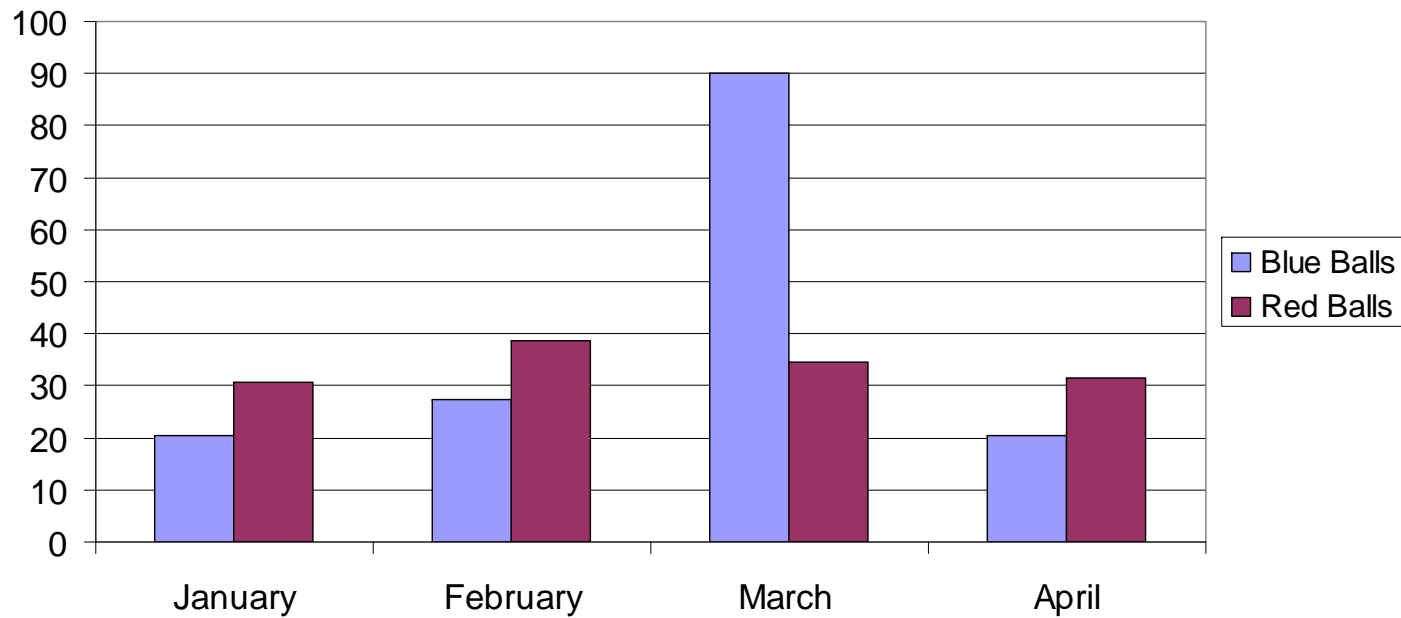- Use the same background consistently throughout your presentation

Graphs Good

- Use graphs rather than just charts and words
  - Data in graphs is easier to comprehend & retain than is raw data
  - Trends are easier to visualize in graph form

- Always title your graphs

Graphs   Bad

Graphs   Good

Items Sold in First Quarter of 2002

Graphs Bad

- Minor gridlines are unnecessary
- Font is too small
- Colors are illogical
- Title is missing
- Shadings distracting

Preparing the presentation

- Prepare the slides in advance
- Show them to friends
- When you think you are done read them again
- Check all animations with the sound on

Preparing the presentation

- Practice, practice, practice
  - Give a practice talk to a general audience
  - Give a practice talk to an audience of expert
  - Time your presentation (allow for speedup effect caused by nervousness)
- Always assume technology will fail you. Have backups.

Delivering the talk

- Be enthusiastic! If you aren't why should the audience be?
- Make eye contact with the audience
- Identify a few "nodders" and speak to them
- Watch for questions. Be prepare to digress or brush off when irrelevant

Delivering the talk

- Point at the screen not the computer
- Do not read directly from the PPT or your notes
- Have the contents for the first couple of slides memorized in case you go blank
- Finish in time

Handling questions

- Different types – handle accordingly
  - Need clarification
  - Suggest something helpful
  - Want to engage in research dialog
  - Show that he/she is better than

Summary and Recap (Cont)

- SlideLayout
  - Less words
  - One point at a time
  - Use Animation Carefully
  - Choice and use of font size/type
  - Use different colors limit to 2 or 3
  - Good Graphs

- TalkDelivery
  - Enthusiastic
  - Eye Contact and Speak to "Nodders"
  - Watch for Questions

- PresentationPractice
  - Prepareslidesin

Questions?

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