# Research Seminar
(Formation à la Recherche)

26 November 2014

Wendy Mackay
mackay@in.fr
http://insitu.in.fr/People/ResearchSeminar
Building 650, (PCR) or Ada LoveLace

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## Abstract

Summarize the paper:
- Include the problem and solution
- Emphasize the contribution

1st sentence:
- What you did: system, algorithm, study

Next sentences:
- Key details to explain 1st sentence

Final sentence:
- Main results or claim

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## Assignment #5: Write an abstract

First version due: 19 November
Final version due: 26 November

1. Choose a research article and read it

2. Rewrite the abstract without looking at the original abstract (one paragraph)

3. Submit the original abstract and your abstract (one page)
## Lab Notebook check

## Grades

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lab notebook</td>
<td>check</td>
</tr>
<tr>
<td>2 Read a paper</td>
<td>check</td>
</tr>
<tr>
<td>3 Review a paper</td>
<td>grade</td>
</tr>
<tr>
<td>4 Letter of recommendation</td>
<td>check</td>
</tr>
<tr>
<td>5 Write an abstract</td>
<td>grade</td>
</tr>
<tr>
<td>6 Presentation</td>
<td>check</td>
</tr>
</tbody>
</table>

### Giving a talk

**Who is your audience?**

What can you assume about what they know? Shared jargon, assumptions, methods …

- Research group: Specialists with shared context
- Specialized conference: Specialists with less shared context
- Main conference: Mix of generalists and specialists
- Computer Science Dept.: Mix of generalists and specialists
- Research magazine: Technical generalists
- General public: Non-technical generalists
### What is the venue?

<table>
<thead>
<tr>
<th>Setting</th>
<th>Type</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>Conference</td>
<td>15-20 minutes</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Class</td>
<td>1-3 hours</td>
</tr>
<tr>
<td></td>
<td>Corporate meeting</td>
<td>15-60 minutes</td>
</tr>
<tr>
<td></td>
<td>Doctoral consortium</td>
<td>45 minutes</td>
</tr>
<tr>
<td>Informal</td>
<td>Workshop</td>
<td>5-10 minutes</td>
</tr>
<tr>
<td></td>
<td>Poster session</td>
<td>2-3 minutes</td>
</tr>
<tr>
<td></td>
<td>Fêtes de la Science</td>
<td>1-3 minutes</td>
</tr>
</tbody>
</table>

### Talk length

- **If it is your own work**
  - 5 minutes    Hard
  - 10 minutes   Very Hard
  - 20 minutes   Easier
  - 60 minutes   Easiest

- When you travel (conferences, workshops)
  be prepared to give a 5-minute summary of your work

### Conference talk: 12-15 slides, 20-minutes

<table>
<thead>
<tr>
<th>Slides</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Title/author/affiliation</td>
</tr>
<tr>
<td>1</td>
<td>Talk outline (optional)</td>
</tr>
<tr>
<td>1-2</td>
<td>Motivation and problem statement</td>
</tr>
<tr>
<td>0-2</td>
<td>Related work</td>
</tr>
<tr>
<td>1</td>
<td>Approach</td>
</tr>
<tr>
<td>4-6</td>
<td>Main body of talk, including results</td>
</tr>
<tr>
<td>1</td>
<td>Summary</td>
</tr>
<tr>
<td>0-1</td>
<td>Future work &amp; questions</td>
</tr>
<tr>
<td>0-3</td>
<td>Backup slides to support expected questions</td>
</tr>
</tbody>
</table>

### Other types of talks

- **Short talks:** Workshops, posters, Ph.D. status review
  - Keep it simple!
  - Find a key take-home message
  - Eliminate extra discussion

- **Long talks:** Job talks, Ph.D. defense
  - Tell an overall story
  - Go into depth at least once
  - Prepare backup slides and questions
Presentation tips

Talk format

Repeat key points:
- Tell them what you're going to tell them
- Tell them
- Tell them what you told them

Tell a story
- Progress through the points
- Help the audience keep track

Have a take-away message
- They will forget most of what you say
- Help them remember the key point!

Preparation

Day before: Visit the room!
- is there a podium?
- will you need a microphone?
- will there be a moderator?

Test your laptop, especially sound and video
- does the projector cut off the edges?
- figure out where to stand to not block the screen
- sit in the audience.
- can the audience see the bottom of your slides?

Avoid practicing late at night
- eat well, but not too much
- go to bed early, review key points in your head

Day of the talk:
- dress comfortably
- arrive early
- meet the moderator
- explain how to pronounce your name
- ask for warnings: For example: 5 minute, 1 minute
- find that friendly face in the room!

BREATHE!
- Smile! (Yes, it actually helps)
Preparation

What to bring?
- Your laptop
- Paper copy of slides
- Your talk on a key
- Power cable & dongle (Macs)
- Business cards

What if the projector breaks?
- Second projector? Whiteboard? Smartboard?
- Have a backup video if your demo does not work
- If you need a network connection, have a backup

Presentation tips

Avoid laser pointers
- highlight text instead

Stay within the time limit
- practice with 1-minute and 5-minute reminders
- decide in advance what to cut if you run short
- if you so run out of time
- be courteous, and stop

Questions

When you practice with your advisor or other students
- ask them to think of possible questions
- prepare extra slides
- “I’m glad you asked that question!”

Repeat the question
- simplifies the question
- makes sure the audience can hear
- lets you focus on the part you want to answer
- gives you time to think
Handling Stress

Tips for dealing with stress

- Find a friendly face in the audience
  - ask a friend to sit where you can see him or her
  - or make a new friend before the talk
  - Ask that person to SMILE at you!
- If you have a hard time making eye contact
  - look at someone's forehead
- Do not read your talk
- Do prepare points where you can pick up the text if you lose track
- Careful of Powerpoint's monitoring system

Tips for dealing with stress

- Practice! Practice! Practice!
  - First, by yourself
    - Create the slides, work out the key message
  - Next, in front of colleagues
    - Get feedback: what was clear, what needs work?
  - Finally, by yourself
    - Go through the key points in your head before you sleep

Speaking in English
- Accent is less important than emphasis
- Get help from a native speaker, if possible

Consider your personal timing

- Calculate your talk duration
  - usually one minute per slide … but this can vary
- When you are stressed,
  - do you speed up or slow down?
- If you speed up,
  - make sure you have things at the end of the talk
- If you slow down,
  - make sure you have points you can slide over without losing track of the whole talk
Creating Slides

Slide formats

Choose a simple slide format
- reuse it for different talks

Standard powerpoint formats are often complex and ugly

Consider creating a personal slide format
Standard title slide (with logos)
Numbering scheme

Slide content

<table>
<thead>
<tr>
<th>Text</th>
<th>Limit to key points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maximum: two levels of hierarchy</td>
</tr>
<tr>
<td>Color:</td>
<td>Limited palette, use color to highlight</td>
</tr>
<tr>
<td></td>
<td>Careful: Red recedes Yellow disappears</td>
</tr>
<tr>
<td>Contrast</td>
<td>Dark text on bright background (Easier to print, easier to see)</td>
</tr>
<tr>
<td>Font</td>
<td>Serif: Times new roman</td>
</tr>
<tr>
<td></td>
<td>Sans serif: Helvetica</td>
</tr>
<tr>
<td>Font size</td>
<td>Minimum size: 20 points</td>
</tr>
<tr>
<td></td>
<td>Usual size: 24 points</td>
</tr>
</tbody>
</table>

Slide layout

| Frame:       | Avoid placing content at the edges                        |
| Figures:     | Use figures or images to convey ideas                     |
| Transitions: | Avoid special effects (mostly distracting and unprofessional) |
| Graphs:      | Label and read the axes                                   |
|             | Explain what the graph means                              |
**Delivery suggestions**

<table>
<thead>
<tr>
<th>Better</th>
<th>Worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talk</td>
<td>Read</td>
</tr>
<tr>
<td>Stand</td>
<td>Sit</td>
</tr>
<tr>
<td>Move</td>
<td>Stand still</td>
</tr>
<tr>
<td>Vary your pitch</td>
<td>Speak in a monotone</td>
</tr>
<tr>
<td>Speak loudly and clearly</td>
<td>Mumble</td>
</tr>
<tr>
<td>Face the audience</td>
<td>Look downward</td>
</tr>
<tr>
<td>React to audience</td>
<td>Ignore audience</td>
</tr>
<tr>
<td>Finish on time</td>
<td>Go over</td>
</tr>
<tr>
<td>Practice</td>
<td>“Wing it”</td>
</tr>
</tbody>
</table>

Observe good speakers. What do they do?

**Describe each graph**

First, read the labels
Then, explain the graph. What is good, what is bad?
If you jump ahead, the audience will not listen

TCT = Task completion time

**Content suggestions**

<table>
<thead>
<tr>
<th>Better</th>
<th>Worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on key arguments</td>
<td>Get lost in the details</td>
</tr>
<tr>
<td>Avoid or explain jargon</td>
<td>Assume audience knows jargon</td>
</tr>
<tr>
<td>Use graphics, images</td>
<td>Text only</td>
</tr>
<tr>
<td>Summarize key points</td>
<td>Omit the conclusion</td>
</tr>
</tbody>
</table>

**Other ways to present your research**

Give a demo
- conferences, lab visits, university events, science fairs
Online videos
- conference videos, Youtube, lab/personal websites
Research Blogs and webcasts
- lab or personal
Social networks

Talk to people in conferences and events
## Homework Assignment #6

### Presentation Slides

<table>
<thead>
<tr>
<th>Homework: due 17 December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare to give a 5-minute talk in class</td>
</tr>
<tr>
<td>Create a presentation with four slides, based on an article you read</td>
</tr>
<tr>
<td>1. Motivate the talk</td>
</tr>
<tr>
<td>2. Content / image</td>
</tr>
<tr>
<td>3. Content / image</td>
</tr>
<tr>
<td>4. Conclusion</td>
</tr>
<tr>
<td>Work in pairs</td>
</tr>
<tr>
<td>Hand in a paper copy as well as a mailed copy</td>
</tr>
</tbody>
</table>