Giving a Presentation

Checklist for the PRG Seminar

General Criteria for a Good Talk

A good talk is …

- … well structured (with a clear beginning, middle, and end)
- … is clearly explained and contains a good motivation
- … is engaging and allows a knowledge transfer
- … is supported with relevant examples/illustrations
- … is appropriate to the audience and makes appropriate use of prior knowledge

A good presenter …

- … uses gestures, facial expressions and posture
- … moves appropriately
- … shows enthusiasm and self-confidence
- … uses different pitches, tempos and volumes
- … uses a precise choice of words and clear language
- … uses few or no filler words

What to Avoid

- Avoid spelling mistakes on your slides (someone will see them).
- Avoid outline slides. If an outline slide is really important and actually necessary, please do not start the presentation with this slide. First describe the problem, say why this problem is important and then give an overview of the remainder of the talk.
- Avoid displaying complex diagrams all at once (especially if they consist of several components, it is better to build the diagram component by component).
- Avoid, however, too fancy animations. Simple animations for the appearance and disappearance of components are sufficient.
- Avoid turning your back to the audience, look at your audience (and not just your supervisor), and try not to be glued to your laptop.
- Avoid red/green, blue/violet color combinations to distinguish elements, as these are not accessible to people with color blindness.
- Avoid the use of Powerpoint – we provide a LaTeX template on ILIAS.

What to not Forget

- Bear in mind the audience (viz. interested computer science students).
- Include page numbers on the slides as they help to point out a specific slide.
- Cite the sources of images/figures/tables/etc. (e.g. as footnotes).
- Five to seven bullet points per slide are okay, more than that makes slides crowded.

- Choose the titles of the slides carefully, as they are important to read and understand the slide with the right associations.
- Explain tables and figures carefully (check Section 3.2 in the document "Academic Writing" available on ILIAS for details).
- Practice your presentation to deliver a great talk. Rehearse multiple times to refine timing and tone.

Structure and Content

The actual structure and content of the presentation will depend on your work or chosen topic – however, we provide two lists for possible structures and content to help you prepare (make sure you choose the right list for you).

For students who **write a thesis** in our group as well as for students who have chosen to work on a **small research project**, we recommend the following structure and content.

1. Start by motivating your research project by explaining, which problem is solved and why this problem is relevant and thus important/interesting to be researched.
2. Embed your research question in a broader perspective, i.e., describe the main research area and possible sub-areas and make references to important publications in the field.
3. Outline the roadmap for your project. This means that you describe the planned or implemented steps.
4. Formally describe your research and solution (i.e., present algorithms, formulas, theorems, proofs, etc.) and describe your solution with didactic examples and illustrations. If applicable, present your own implementation including examples that illustrate the main processes and steps of your method.
5. Describe and discuss the empirical results achieved so far (if applicable) or at least the planned setup for the empirical evaluation.
6. Draw conclusions.
7. Present possible future research directions (and your next steps, if applicable).
8. Prepare one slide with at least two interesting, debate-provoking questions (in case the discussion session does not get off the ground).
9. Prepare one slide with mentioned references.

For students who write a **review article**, we recommend the following structure and content.

1. Start by motivating your field of methodology or field of application by explaining why this field is relevant and thus important/interesting to be researched.
2. Provide an overview of algorithms that are relevant for your field of methodology or field of application. Try to define a logical grouping with categories and subcategories.
3. Describe the most important algorithms from your overview with sufficient depth so that the descriptions are interesting (not just superficial lists of different methods). Show didactic examples and illustrations.
4. Also compare the different algorithms with each other, and discuss the strengths and weaknesses of them.
5. Describe and discuss the empirical results found in the literature.
6. Draw conclusions.
7. Discuss possible future research directions for your field of methodology or application.
8. Prepare one slide with at least two interesting, debate-provoking questions (in case the discussion session does not get off the ground).
9. Prepare one slide with mentioned references.