Seminar Presentation and Seminar Manuscript

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Outline

1. Presentation Environment
2. Seminar Presentation
3. Seminar Manuscript
1. Presentation Environment

Where Shall I Give Presentations?

- Presentations for clients
- Presentations for visitors / guided tours
- Project meetings
- Conferences
- Appointments
- Lectures
- Applications
- Consulting
- Public hearings

Who Are the Participants?

- Screen
- Chairperson
- Speaker
- Audience
Presentation Steps

• Chairperson introduces speaker
• Speaker gives presentation
• Chairperson moderates discussion:
  - Chairperson appoints questioner
  - Speaker answers question
  - … repeat until time is up / no further questions.
  - If nobody else does so, chairperson asks question.
• Chairperson closes talk, moves on to next speaker.

Questions?

• Arrange in advance whether questions are taken during the talk.
• Short presentations: take questions only after presentation.
• Long seminars: allow (and encourage) questions at any time.
2. Seminar Presentation

'The Columns of Success':

- well-structured
- comprehensible
- interesting
- memorable

Preparation

- Good Manuscript
- Trial Run
  - Practice in front of a mirror
  - Net duration 20 minutes (excl. discussion)
- Relax!
  - Prepare presentation in time
  - Transfer presentation to computer beforehand (CD-ROM, USB-Stick) not right before presentation.
  - Plan time to test equipment, connect hardware, etc.
  - Test presentation (animations, movies!)
  - Don't panic when problems arise!
Standard Presentation Structure

- Title page (title, name, affiliation)
  *Introduce co-workers!*
- Warm-up page *(What is the talk about?)*
- Outline (re-use during presentation)
- Main parts
  - Divide into sections (max. 4)
    And subsections
- Summary – Conclusions
- Outlook (future work)
- Acknowledgements (partners, funding organisations)
- End page *(Thank you for your attention!)*

End of the Presentation

- Use summary as ‘second chance’ to get your ideas across!
- Provide ‘End of Presentation’ slide to keep audience from guessing!
- Appendix with additional material for answering probable questions.
Slide Design

• Each slide has own topic
• Use colors (carefully)
• Free space: 1/3 of slide should remain empty
• Limit number of main points per slide (5)
• Lines should be thick enough (min. 1.5 pt)
• Number slides consecutively (for later reference)
• Avoid introducing too many symbols or too many abbreviations!
• Use clip art and animations only where they help understanding
• Better too little than too much on a slide:
  • Typically 20 to 40 words per slide
  • Maximum 80 words per slide

Slide Design - Text Layout

• Avoid justified text
• Avoid hyphenation
• DO NOT USE ALL CAPITAL LETTERS
Slide Design - Fonts

• Use sans-serif font for readability!
  Compare:
  - Futura, Arial, Helvetica (20 pt)
  - Times-Roman (20 pt)

• Do not use small fonts (10 to 20 lines per slide!)

This is 32 point font size (Header)
This is 24 point font size. A good standard.
This is 20 point font size. This should be the minimum.
This is 16 point font size. Could be used for on-slide references, diagrams.
This is 12 point font size. It gets painful.
This is 10 point font size! Can you really read this?

Slide Design – Fonts (cont.)

• Do not mix too many font sizes (max. 2)
• Do not use ‘exotic’ fonts if you distribute your presentation electronically (Word).
Comprehensible Presentation

- Speak loud and clearly
  - Ca. 1-2 minutes per slide
- Use short sentences
- Use simple descriptions (pictures!)
- Slides:
  - One topic per slide
  - Use keywords only (max. 7 words per line)
  - Figures: max. 2 per slide

Comprehensible Presentation

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- Do not use copies of manuscript pages!
- Do not use whole sentences on slides!
- Do not speak to the screen!
Mathematical Formulas

- Avoid 'Formula Graveyards'
- Try to express content with plain text:

Compare:

- Since $\left\{ x \in \{0,1\}^* \mid x \trianglelefteq y \right\} < \infty$, we have …

with:

- Since $y$ has only finitely many prefixes, we have …

(Example from *Users Guide to the Beamer Class*)

Graphics

- Put a graphic on each slide!
- Place graphics to the left of text!
- Use same fonts as text!
- Explain everything that is shown!
- Show short info about the figure source (URL or author, title) below or on the side of the graphic

Animations

- Use animations to explain a dynamic process!
- Do not use animations to attract attention!
- Do not use distracting special effects, unless they illustrate a process!
Raising Interest

- Make sure that you understand the topic!
- Try to impress by making things 'look simple'
- Use examples!
- Be friendly!
- Speak freely (prepare keywords only)
- Motivate
  - „What do we need this for?“

🤔 Do not read or learn by heart!
🤔 Try not to lecture the audience!

Memorability

- Overall Impression
  - First impression is most important!
  - Good presentation (fluid, well-prepared, contact with audience)
  - Discussion (prepare for probable questions!)
- Supplementary Material
  - Specimen, photos, advertising material

Handouts

- Do not distribute handouts before presentation.
- Exception: table of contents for long presentations.
Was the Presentation Successful?

- Public interest – Many questions!
- Positive feedback (Grade)

Never forget: Provide knowledge for colleagues!

3. Seminar Manuscript - Structure

- Title Page
  - Title of presentation
  - Title of the seminar, seminar ID.
  - Author, matriculation number
  - Date
- Table of Contents
- Main Body
  - References to figures and literature
  - Figure captions, numbered consecutively
- References
  - Author, title, publisher, year, source (library, private)
1. Introduction

1.1 Preliminaries
   1.1.1 Mathematical Basics
   1.1.2 Mechanical Basics

1.2 Literature Overview
   1.2.1 Internet
   1.2.2 ILSB Library
   1.2.3 TU Library

Figure 1: Cryogenic pipe.

Cryogenic hydrogen is transported in double walled pipelines with vacuum insulation, see Figure 1.
Figure References, Examples

- In Figure 1, the experimental setup is shown.
- Figure 2 shows the predicted stress results.
- The modified setup is presented in Figure 3.
- The experiment by Ashby, compare Figure 4, …

Most often ‘Figure’ is abbreviated as ‘Fig.’

Careful: ‘Figure 2’ is capitalised because it represents a name, whereas ‘figure’ is not capitalised where it is used as a simple noun:

\textit{In this figure, the results from the simulation are displayed.}

Literature References

- The stability of cylindrical shells under external pressure was investigated by Meier et al. [1].
- … was presented in [1] by Meier and Müller.
- … compare [1].
- … see also [2].

References


Mathematical formulas are written centered on separate lines and provided with a right-justified equation number:

\[ E = mc^2 \]  

(1)

References to formulas in the text:
• In Eq. (1) the mass \( m \) has to be entered in [kg/m\(^3\)].
• Inserting (1) in (2) yields …

Formatting of Mathematical Symbols

• Symbols \( \Rightarrow \) italic font:

\[ \sigma_{xy}, F_i \]

• Abbreviations \( \Rightarrow \) roman font:

\[ \sigma_F, F_{\text{ext}} \]

Note difference between index \( i \) and abbreviations!
Summary

• Outline sequence of events in typical presentation; role of chairperson.
• Guidelines for a successful presentation
• Structure and formal requirements for seminar manuscript