Presentation skills
How to prepare and give a scientific talk

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Burg Bodenstein
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Presentation skills
Overview: What you will get...

Check and revision of own presentations

[1]
Aspects of preparing a scientific talk:
What has to be pre-planned!

Checklist:
What has to be taken
into account beforehand?

Preparing visualisations:
Considerations and rules

[2]
Giving the talk:
How to be successful during the talk?
Checklist: What has to be taken into account beforehand?

Aims of the talk

Characteristics of the audience

Structure of the talk

Alloted time

Environment

Giving the talk

Aims of the talk

1. General survey of the project, e.g.
   - what you investigate,
   - what kind of methods you use,
   - which results you already have or expect to get,
   - etc.
   
2. Information about the actual status quo of your project
   
3. Presentation and discussion of new results of your studies
   
4. Information about and discussion of particular problems

Characteristics of the audience

- Size?
- Knowledge?
- Expectations?
- Interests?

Define your message and make it clear!!
### Structure of the talk

<table>
<thead>
<tr>
<th>Introduction</th>
<th>Mainpart</th>
<th>Ending</th>
</tr>
</thead>
<tbody>
<tr>
<td>ca. 15%</td>
<td>ca. 70%</td>
<td>ca. 15%</td>
</tr>
</tbody>
</table>

**Introduction**
- Address of welcome
- Introduction of yourself
- Personal involvement
- Overview what the audience has to expect
- Introduction to the topic

**Mainpart**
- Depending on your aim:
  - Background information about your project
  - Information, - what you have done already, - how it worked, - what you plan to do.
  - Explanation of your methods
  - Presentation of your results
  - Illustration of your main problems

**Ending**
- Summary
- Conclusions
- Open questions
- Further questions
- Acknowledgements
- Maybe: Bibliography

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**Stay within the alloted time! → Practice beforehand**

### Environment

- **Which media do you want to use?**
- **Which equipment is available?**
- **Who is in charge of the media and can be contacted beforehand?**
- **What size and form does the (lecture) room have?**

**How are the light conditions?**
(important for your slides)

**Be prepared for the failure of technology:**
- Take a CD with your whole talk with you
- Take printed transparencies with you
- Take paper prints from all transparencies
  → In case nothing works they can copied for the audience
Giving the talk

✓ Prepare your notes
  • Brief notes
  • Cards (it's good to have something in your hand)

Tip: Print out your transparencies/slides in a small version and write keywords on it!

✓ In case you might be nervous:
  → Know the first minutes of your talk by heart... and the very end too
  → Write out your first sentences in full

Preparation visualisations:
Considerations and rules

General considerations

Rules concerning the content

Rules concerning the design
Preparing visualisations:
General considerations

1. Consider the aims of visualisations:
   Visualisations
   - make your message clearer,
   - confirm what you are saying,
   - underline and emphasise your arguments,
   - help remember things,
   - keep the attention of your audience.

2. Preparing diagrams or tables:
   - label the axes of diagrams,
   - put a legend to each diagram,
   - point out the first row and the first column in tables,
   - give each diagram and table a title,
   - explain diagrams and tables step-by-step

❗ Rule of thumb:
Don't use more than one transparency/slide every other minute!

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Comparison of the rainfall during the months June, July and August 2003
- Freiburg / Brsg. -

![Comparison of rainfall graph](chart.png)
Rainfall, sunshine and temperature during the months June, July and August 2003 - Freiburg / Brsg. -

<table>
<thead>
<tr>
<th></th>
<th>Rainfall (litres per m³)</th>
<th>Sunshine duration</th>
<th>Average temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>29 l/m³</td>
<td>290 h</td>
<td>24.2 °C</td>
</tr>
<tr>
<td>July</td>
<td>54 l/m³</td>
<td>255 h</td>
<td>22.6 °C</td>
</tr>
<tr>
<td>August</td>
<td>57 l/m³</td>
<td>345 h</td>
<td>25.5 °C</td>
</tr>
</tbody>
</table>

Preparing visualisations:
Rules concerning the content

✓ Make the structure of the whole presentation clear
✓ Give all transparencies/slides a title
✓ Put your name on each transparency/slide
✓ Use keywords or short phrases instead of long sentences
✓ Keep textual explanations and visualisations in balance
✓ Choose only one topic for each transparency/slide
**Preparing visualisations: Rules concerning the design**

- **Give the whole presentation a consistent appearance!**
- **Make sure that all colours, visualisations and animations have a special function!**
  - Use colours always in the same way
  - Visualisations have to confirm and emphasise what you say
  - Be thoughtful with animations
- **Make sure that everything is easy to read!**
  - Be careful and thoughtful with coloured fonts
  - Prefer colours in the background instead of coloured fonts
  - Be careful with backgrounds of a whole transparency/slide
  - Use capitals and small letters
  - Choose an appropriate font
  - Consider that the colours at the PC at home seem to be brighter as if presented by a beamer

**Coloured fonts**

- ✓ **Is it easy to read? (black)**
- ❓ **Is it easy to read? (orange)**
- ❓ **Is it easy to read? (green)**
- ✓ **Is it easy to read? (dark blue)**
- ❓ **Is it easy to read? (red)**
- ❓ **Is it easy to read? (yellow)**
- ✓ **Is it easy to read? (dark green)**
- ❓ **Is it easy to read? (light blue)**

- ✓ It's good.
- ❓ It depends on the light conditions.
- ❓ You shouldn't use it.

Note: You should also consider that some people can't distinguish between red and green.

**CAPITALS and small letters**

An example:

**WHAT DO YOU THINK: IS IT EASY TO READ? OR DO YOU THINK, IT'S DIFFICULT?**

And what do you think about this? Don't you think, it's easier to read?
Choosing the fonts

Choose a font which is good to read. (Century Gothic)
Choose a font which is good to read. (Times New Roman)
Choose a font which is good to read. (American TEXT BT)
Choose a font which is good to read. (Comic Sans MS)
Choose a font which is good to read. (Architecture)
Choose a font which is good to read. (Bard)
Choose a font which is good to read. (Berlin Sans FB)
Choose a font which is good to read. (Folio Lt BT)
Choose a font which is good to read. (President)
Choose a font which is good to read. (Arial)

💡 Rule of thumb: Use fonts without serifs

Rules of thumb concerning the size of the fonts

<table>
<thead>
<tr>
<th>Distance to the screen</th>
<th>Recommended font size</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 m or less</td>
<td>5 mm</td>
<td>Font</td>
</tr>
<tr>
<td>11 - 15 m</td>
<td>10 mm</td>
<td>Font</td>
</tr>
<tr>
<td>16 - 20 m</td>
<td>15 mm</td>
<td>Font</td>
</tr>
<tr>
<td>21 - 25 m</td>
<td>20 mm</td>
<td>Font</td>
</tr>
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Giving the talk:
How to be successful during the talk?

What should you do ...

 shortly before you start... during the talk ... after the talk in the discussion...
### Giving the talk: What should you do shortly before you start ...

<table>
<thead>
<tr>
<th>What you should do</th>
<th>What you should NOT do</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Check the technology about 15 minutes before you start</td>
<td>? Forget the address of welcome</td>
</tr>
<tr>
<td>✓ Check your transparencies/slides</td>
<td>? Hide yourself behind the desk or computer</td>
</tr>
<tr>
<td>✓ Face the audience</td>
<td>? Face the screen</td>
</tr>
<tr>
<td>✓ Speak free</td>
<td>? Read your script</td>
</tr>
<tr>
<td>✓ Speak loudly and clearly</td>
<td>? Point with your fingers on the transparencies</td>
</tr>
<tr>
<td>✓ Notice your audience’s needs</td>
<td>? Overrun the allotted time</td>
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### Giving the talk: What should you do during the talk ...

<table>
<thead>
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<th>What you should do</th>
<th>What you should NOT do</th>
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</thead>
<tbody>
<tr>
<td>✓ Accept that you might be nervous</td>
<td>? Forget the address of welcome</td>
</tr>
<tr>
<td>✓ Stay in a comfortable position</td>
<td>? Hide yourself behind the desk or computer</td>
</tr>
<tr>
<td>✓ Face the audience</td>
<td>? Face the screen</td>
</tr>
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<td>✓ Speak free</td>
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</table>
Giving the talk:  
What should you do after the talk in the discussion...

<table>
<thead>
<tr>
<th>Before</th>
<th>During</th>
<th>After</th>
</tr>
</thead>
</table>

- Make sure that you understand the questions correctly
  - Maybe ask for further clarification
- Before you answer:
  - Repeat the question as you have understood it
- If you don’t know the answer: Be honest!
- Avoid arguments
- Write down important hints...
  - .. or ask somebody else to do it for you

Presentation skills

Open questions / Ending

Are there any open questions?
Are you interested in additional informations?

Think of the possibility of individual coaching in the afternoon

Good luck for your next presentation!!!


