Convincing Scientific Presentations

TU Hamburg Harburg

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Workshop Humanities and Engineering

Intercultural Communication

Content

*»*Try not to achieve effects that do not lie in your character. *«*
Kurt Tucholsky

Introduction

Like scientific papers, oral presentations at a conference or internal seminar are for sharing your research work with other scientists. They, too, must convince the audience that the research presented is *important*, *valid*, and *relevant* to them. To this end, oral presentations — like papers — must emphasize both the *motivation* for the work and the *outcome* of it, and they must present just enough evidence to establish the validity of this outcome. Also like papers, they must aim to inform, not impress.

In contrast, presentations differ from papers in at least three ways: They are more localized in space and time, they impose a sequence and rhythm to the audience, and they normally include some level of interaction. These three differences affect the selection of a presentation's content.

An effective oral presentation gets you to *pay attention*, to *understand*, and to *think* or *do things differently* as a result of it.

As a scientist, improving your abilities to present can be great fun, as you develop an important aspect of your personal and professional skills. In the seminar you will learn to improve all the three important areas: *content*, *media* (slides, posters, flipchart, etc.) and *performance* on stage.

The first step will be to become aware of your current presenting style and then to make a decision what to change. The most important factors are personal coherence and logical and visual comprehensibility.

Master the three areas

If you want to conduct convincing scientific presentations it is necessary to master the three essential areas:

1. Know how to **create clear content**.
2. Know how to **design proper media** – such as PPT slides.
3. Know how to **be convincing on stage**.

In this workshop & handout you will learn about these three areas.

My learning goals

Please note below the 3 most important questions or goals that you have brought with you – and ideas, which arise during the seminar.

1) _____

Space for my ideas during the seminar:

2) _____

Space for my ideas during the seminar:

3) _____

Space for my ideas during the seminar:

What I take from the workshop

_____

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My next presentation:

Date / Topic: _____

	What will I change? this?	**How will I do this / reach**
Content	_____ _____	
	_____ _____	
Media / Slides	_____ _____	
	_____ _____	
On Stage	_____ _____	
	_____ _____	

The first step(s) I will take	**When am I doing this?**
_____ _____	
_____ _____	
_____ _____	

Tips for your future improvements

- **Use** every opportunity to present! Be active in creating these opportunities.

- Teach others.

- Before every presentation set yourself **three goals** of what you want to do better this time:
    1. Set one goal how to prepare even clearer content
    2. Set one goal how to improve your media
    3. Set one goal for being better on stage

- In your next presentation, kindly ask someone that you know well for **specific feedback.**

- Learn through video- & audio- **recordings.**

- Make **notes** after every presentation of what you can do to improve next time: (1) in regard to the content, (2) the media and (3) on stage. Have a **life-long learning log**. Create a place where you note down all your presentation related learning experiences over the years. After talks, discussions, etc. Write down your own impression and the feedback from others.

- Do this first of all from your own point of view and then with the help of feedback from others.

- To train your **quick-wittedness** and oration: Join the Toastmasters or another similar group.

- Get individual presentation **coaching** to achieve specific goals.

Video and audio record your talks every once in a while – and learn from it.

Have many talks – and learn to enjoy them.

1. Create Clear Content

1. **Target** – tailor your talk to the audience's needs
   1. Write down your goal: From which state A before the talk to which state B after the talk do you want to lead your audience?
   2. Take home message
   3. Main question

2. **Structure** – form a hierarchy
   1. Formulate 2-5 statements that support your take home message
   2. Formulate 2-5 sub-points per statement

3. **Make it stick** – find "brain cinema" chunks
   Collect vivid examples, comparisons, metaphors, objects, diagrams, demos, videos, pictures.

4. **Write it out** – formulate essential parts
   1. A strong start
   2. A sticking end (exit lines 1 at end of talk) and exit lines 2 (end of Q&A)
   3. An inviting title (usually not a paper's title)
   4. Transition sentences per slide
   5. Marker sentences (attention catchers)
   6. Your notes (on paper, as digital notes, NOT as bullets on slides)

Lectures are good when they get to the point.
The more clarity, the better.

1. **Target** – tailor your talk to the audience's needs
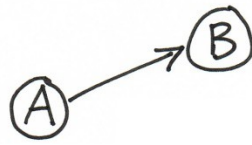
From which *state A* before the presentation do you want to shift your audience to which *state B* thereafter? When it is over, what should your audience know better, do better, see as new, think, and be able to do? B has to be valuable for your specific audience.
Write down your goal.
You may have one public goal to share – and an internal, private one.

Write down your take home message
Have a single, most important message that you want to share – guided by your goal. Begin with the end in mind. Some examples:

ϑ "GATA-3 appears to co-regulate with estrogen receptor."

Λ "GATA-3 is essential for estrogen response (more a single conclusion point than a

complete take home message)."

ϑ "Cytosol components directly participate in the membrane fusion

between MLV and its host cell." – This would be more memorable

than

Λ "Cytosol components are important in membrane fusion."

ϑ "Cooling of the brain may decrease its tendency for excitation and

seizure."

ϑ "Generating viruses that express tissue-specific ligands on their

outer membranes

can allow for highly individualized gene-delivery systems."

ϑ "Female T-cells are immunized against the Y antigen during

pregnancy."

Write down your main question
After having defined your take home message that will be revealed in the second half of your talk, think about a specific question

leading to the take home message.

Λ "Adult CD4 cells undergo partial polarization under CD3/CD28 costimulation with cytokine priming" – this would lack too much context as a starting statement.

ϑ Thus, ask e.g. "How does cytosol contribute to membrane fusion?"

ϑ "What are the kinetics of IFN-8 levels during antitumor treatment?"

ϑ "How does brain temperature affect excitation and seizure?"

ϑ "How can we improve the gene specificity of viral gene-delivery systems?"

Work Sheet: Goal, Take Home Message, Main Question

My internal goal: _____

_____

_____

_____

My external goal:_____

_____

_____

_____

Value for my audience: _____

_____

_____

_____

My take home message: _____

_____

_____

_____

_____

My main question: _____

_____

_____

_____

_____

2. **Structure** – form a hierarchy

Design a hierarchy with three layers. Your take-home message is the root of the hierarchy. Below follow your core messages, a maximum of three. For each core message you can add up to five sub messages.

Take home message

Core messages

Sub messages
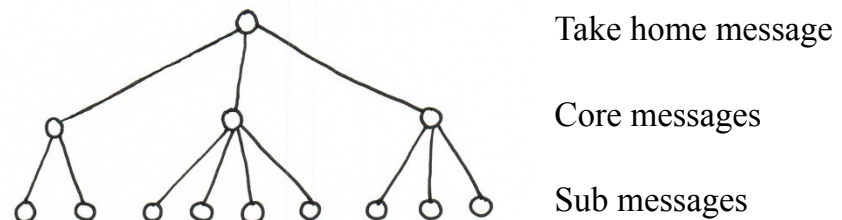
Design the structure of your talk is a higher key.
Rule of thumb: each node turns into one slide.

Giving your talk then can be imagined as the sequential visitation of the nodes of the tree – from top to bottom, from left to right. Thus, you visit all the nodes of your hierarchy during your presentation. When you move from one node to another horizontally it is a good idea to have clear, easily understandable transitioning sentences prepared.

Less is more
Often people are motivated to present the complete work of the last months or even years in one presentation. This is simply impossible. Much better is it to remove specific topics completely from your talk. Your audience can then ask for them during the discussion. It is much more preferable to elaborate only on a few key aspects in depth.

Before each presentation create a list „topics that I will NOT talk about this time"! Stick to it.

Create your Story – the "Bonbon Structure" of your talk

To design your story write down your ideas for each component below.

-

- Attention getter
- Lead your audience to the need / problem efficiently.
- Introduction & Motivation
  Introduce the problem. Clarify common ground and background. Difference between actual and desired situation.
- Topic and leading question
  What you decided/were asked to do to address the problem.
- Preview
  Tell them, what you're going to tell them (ideally three points, max. five).

- Then, tell them:

    a. Point 1
       Transition
    b. Point 2
       Transition
       … (up to 3 core points / messages)

- Main message (the "what?")
  The one sentence I want my audience to remember.

- Review
  Tell them what you told them. Lead into the conclusion.
- Conclusion (the "so what?")
  What the above means to the audience in the end. What they can do / think differently from before. Help them to "use" what you presented.
- Close 1 (end of your talk)
  End your presentation clearly and elegantly.
- Close 2 (end of Q&A)
  Keep control of your audiences state at the end of Q&A.

Adapted from Jean-Luc Doumont, Trees, maps, and theorems (Principiae, 2009, www.treesmapsandtheorems.com) as well as from "Speaking about Science" (Morgan et al. 2006).

3. Make it stick – find brain cinema chunks

For all core messages and your topic: look for specific, well-fitting, easily understandable examples, metaphors, comparisons, quotations, anecdotes, images (visual and verbal), photos, etc.

Do so and you will become a magnet for your audience ;-)

4. Write it out – formulate essential parts

A good method to proceed is to fully formulate sentences for important parts, but then to highlight only important catchwords. You can print them much bigger and place your notes on your desk during the talk. If you feel highly nervous you can then come back to the complete sentences while otherwise a glimpse on the catchwords will be enough.

Formulate text for
1. A strong start
2. A sticking end (exit lines 1 at end of talk) and exit lines 2 (end of Q&A)
3. An inviting title (usually not a paper's title – do not read cryptic, long, scientific titles but transform them in easily understandable language)
4. Transition sentences per slide
(Consider the 4-step process of guiding through a slide, see below)
5. Marker sentences (attention catchers)
Like "One of the most interesting findings was, …", "Why is all this relevant?", "The most surprising new insight is …", "And if you only remember this point from my talk …". Be sure that marker sentences always have to PREcede the relevant information.

Designing Slides
Only then, start to design your slides!
Do so by sketch-like pencil scribbles on paper – NOT in PPT.
Only thereafter implement what you created in PPT.

Presentation Notes
When you know about your slides, create your presentation notes (on paper or as digital notes, NOT as bullets on slides)

Work Sheet: Content Details

Transition	Guide generally from one specific thought to the next – before showing the next slide.
Sentences	ϑ "So, this is the microstructure we observe consistently in the absence of annealing.
	But how does it change if we anneal the sample at 450°C for an hour or more? That's my next point. Here is . . . "

Your transition sentences: _____

_____

_____

_____

_____

_____

_____

_____

A Strong Start	Part 1: get the attention, quickly. Use a question, a statement, an anecdote (humorous or not), an analogy, a quotation, an object, a picture projected on the screen, and so on. It has to be

- short,
- audience-oriented,
- relevant and appropriate, as opposed to out-of-place or overdramatic.

Usually, less specialized audiences require more creative attention getters.

For specialists a simple link with a familiar context ("As most of you know . . . ") or with the previous speaker ("As Dr. Chandrasekhar just pointed out . . . ") may suffice.

Λ "My name is Irma Godowsky and I would like to talk to you today about . . . " –

this is not audience centered but self-centered.

Λ A joke unrelated to the topic

Your strong start: _____

_____

_____

_____

Exit Lines 1   Indicate elegantly yet unambiguously that you have said your last

words – give them the signal to applaud.

ϑ Link back to your attention getter.

Λ "So, that's all I had for you today."

Λ "Thank you for your attention!" (Too weak – you want them to

thank you!)

Λ "I will be happy to answer any questions you have." (Too early)

Your exit lines 1: _____

_____

_____

_____

Further hints on Clear Content

The Beginning

… of a Lab / Branch talk
- Ask and answer yourself: What is the overall aim of the lab or branch?
- Answer to your audience:
- Where are the current dilemmas and complications regarding this aim?
- What am I focusing on at this time?
- Why is this solution / candidate etc. particularly promising?
- What terms need to be defined for the lab / branch?
- What other steps does the lab / branch need to know before I put forward the Main Question?
- Main Question

… of a Department Talk
- Ask and answer yourself: What is the goal of the department?
- Answer to your audience:
- What is the overall aim of the department?
- Where are the current dilemmas and complications regarding this aim?
- What am I focusing on at this time?
- Why is this solution / candidate etc. particularly promising?
- What terms need to be defined for the department?
- What other steps does the department need to know before I put forward the Main Question?
- Main Question

… of a Professional Meeting
- Ask and answer yourself: What is the purpose of the organization or the objective of the professional meeting?
- Answer to your audience:
- Within this context, what does our institution do?
- What is the overall aim of our department, branch, and/or lab?
- Where are the current dilemmas and complications regarding this aim?
- What am I focusing on at this time?
- Why is this solution / candidate etc. particularly promising?
- What terms need to be defined for the organization?

- What other steps does the organization need to know before I put forward the Main Question?
- Main Question

The Ending

1. THM
2. Future Plans
3. Exit Line 1
   Thereafter you should significantly change body position –
   e.g. come aside or in front of your podium.

4. Q&A
5. Exit Line 2 (you control the end)

Good examples for step 1-3:
Our goal over the next several months is to test this single-chain
protein in assays to assess human response. We will also insert this
gene into the patients! own B-cells, to test whether they are either
tumor-specific or idiotype-specific CTL.

In aggregate, puromycin attenuates the activities of store-operated
calcium channels. Our next studies will determine whether
puromycin acts directly or indirectly on these channels.

Choose a good Title

Improvable (way too complex):
The Design and Application of Tagging SNPs in Neuronally
Expressed Voltage-Gated Sodium Channel Genes to a Cohort of
Caucasian Epilepsy Patients
Better:
Tagging SNPs: Voltage-Gated Sodium Channel Genes in Epilepsy

Improvable (unnecessary detail):
Delay of Epiphyseal Fusion: An Experimental Approach for
Increasing the Height of Extremely Short Children
Better:
Delay of Epiphyseal Fusion: Increasing the Height of Short
Children
Even Better (from general to specific):
Increasing the Height of Short Children: The Delay of Epiphyseal
Fusion

Improvable (too broad):
Schizophrenia in the Age of Molecular Science

Improvable (reveals already parts of the THM):
Activation of Hippocampal Formation Reflects Success in Both
Encoding and Cued Recall of Paired Associates
Better:
Applying Hippocampal Formation to Encoding and Cued Recall

Improvable (reveals already parts of the THM):
Event-Related fMRI Reveals Two Human Cortical Mechanisms
during a Working Memory Task
Better:
Déjà Vu in Working Memory: Event-Related fMRI

The 5-step-technique to build an argument
In dependence on Dr. Albert Thiele (s. literature) – thanks!

How do you **tell a good story**? Design its outline on a macro level and then design many good arguments on the micro level.

How to argue convincingly: First, define the **messages** that you want to address. To be able to convince your audience, build your claims into an argument.

Structure your thoughts using the following five steps to receive a convincing, goal-oriented argument:

Step 1:	introduction	context / situation oriented beginning
Step 2-4:	body	three steps of argumentation
Step 5:	closure	core message / goal sentence

A good argument should be provided within **one minute**.

Step-by-step creation of your argument:
1. Start by formulating the core message (a brief, clear sentence)
2. Then search for good supporting reasons (rational and emotional)
   1. Only reasons that support your core message
   2. Which reasons might convince your partner most?
   3. Join abstract reasons with vivid examples and comparisons
   4. Limit body to three reasons
   5. Sort arguments: second | weakest | strongest
   6. Use client-oriented, positive, simple language
3. Finally, find a good introduction

Useful patterns for the 5-step-technique to build an argument
1. Point-of-view pattern
2. Sequential pattern
3. Chronological pattern
4. Pro & Con pattern
5. Compromise pattern
6. Problem solving pattern

To build your own arguments you find spreadsheets in the appendix.
Copy them for use.

1. Point-of-view pattern
    1. Point of view / these
    2. Argument (pro)
    3. Example
    4. Conclusion
    5. Core message / Appeal

2. Sequential pattern
    1. Situation oriented introduction
    2. First, ... / On the one hand ...
    3. Second, ... / On the other hand ...
    4. Third, ... / Furthermore, ...
    5. Core message / Appeal

3. (Chrono-)logical pattern
    1. Situation oriented introduction
    2. In the past... / Evidently ...
    3. Today ... / From this it follows ...
    4. In future ... / This leads stringently
    5. Core message / Appeal

4. Pro & Con pattern
    1. Name the topic
    2. Reasons pro
    3. Reasons contra
    4. Conclusion / own point of view
    5. Core message / Appeal

5. Compromise pattern
    1. Situation oriented introduction
    2. Position A
    3. Position B
    4. Third Solution
    5. Core message / Appeal

6. Problem solving pattern
    1. Current situation w. shortcomings
    2. Goal (It is essential that ...)
    3. Different possible solutions
    4. The best solution
    5. Core message / Appeal

Applying problem solving pattern to question your partner

The problem solving pattern can also be used to interview your counterpart in order to question his solution or to find a good solution:

1. Use probing questions to reveal shortcomings in your counterpart's position:
    7. How do you come to this conclusion?
    8. What are your information sources?
    9. What does science / do experts say?
    10. Where do you see the shortcomings?
2. Which goals seem to be desirable?
3. Which possible solutions do you see?
4. Is your solution the best solution?
    You may use probing questions here, too.

Watch the quality of your reasons / arguments

Possible reasons / references / arguments:

your own experience
facts, figures, numbers, research results, scientific studies
(ZDF – Zahlen, Daten, Fakten)
experts and scientists
references (successful projects, corporations, persons, countries, ...)
the value / benefit of your proposal
USPs (unique selling proposition – uniqueness of your solution)
legal, ethical, moral norms
vivid examples, metaphors and comparisons (for illustration)
to feed the audience's mental cinema (Kopfkino)
Use VAKOG imagination / visualization:

Trigger all five senses: VAKOG

Visual	things you see
Auditory	hear
Kinesthetic	feel
Olfactory	smell
Gustatory	taste

Use rational, emotional, and ethical reasoning

In any convincing presentation, use both reasons for the mind, and reasons for the heart. Often people will be more touched by emotional reasons even if they would never admit. Emotional reasons comprise personal experiences, emotional examples, an individual's destiny, anxiety about the future.

Ethical reasons comprise: values contained by a constitution, law, UN-Charta, statements of well-respected individuals, ethical standards such as justice, sustainability, fairness.

2. Design Proper Media

Stick tot he design guidelines discussed in the course:

Slide Design Guidelines

- 2 minutes / slide minimum
- 25 words max.
- clear background
- two font styles max. – no serifs
- align left, use a grid, group
- visualize!

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3. Be Convincing on Stage

Most important:

1. Watch your language
   a. Follow the MCMCMC rule: Talk in short main clauses
   b. No "and", "and ahm" between sentences
   c. Lower your voice at the end of sentences
   d. No trigger words like "but", "problem" (except for the scientific problem you address)
   e. No filler phrases "ahm", "OK", "So", "You see"…
   f. No weakeners (in Europe): "maybe", "perhaps", "like"… In the US they are more common
   g. Use enumerations to show structure
   h. Use marker expressions to highlight important content

2. Stay in time
   a. Rehearse at least 5 times aloud, note times at milestones
   b. Define priorities of slides, have a plan to skip parts if necessary

3. Prepare likely questions + proper answers

4. Consider how you will use the space, different media, meaningful gestures

5. Have a strong body language

6. Have a strong, modulated voice

During the presentation

A presentation is a sequence of individual contacts. Develop a dialogue. Every presentation is about your audience, not about you. Consider how you can serve them the most. Remain »grounded« during the presentation and stay in touch.
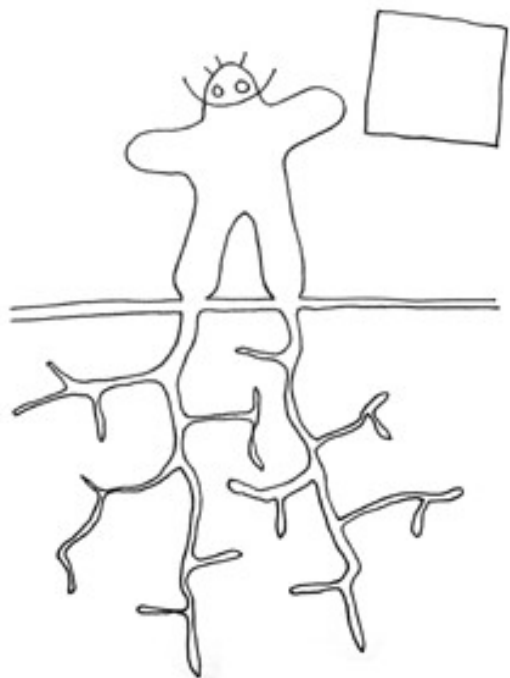
Ideal preliminaries

− Arrange the **room** how it will best suit your needs, before the day of your presentation.

− The evening before: Make a list of 3-7 key words for your desired inner state.

− **Relax deeply** before the presentation for ca. 20 minutes (useful techniques include yoga, breathing techniques, etc.).

− 5 minutes before the start: **physically** get into the desired state (secretly! ;-).

− When you appear on stage, begin with a pause. **»Ground« yourself**, imagine that your feet have 100 meter long roots, breathe deeply and establish eye contact.

− Giving a talk is a succession of individual **(eye) contacts**. **Eye contact** is the bridge to your audience. Focusing only on one side of the audience, or no eye contact at all, signals disinterest and is one of the most frequent mistakes. Fairly apportion where you look (**watering plants** principle). In a large group make use of the 5-spots-technique. Look for faces that you don't mind looking at every now and then.

− Use **guiding questions** before every block to stay in contact with your audience.

Speech

– **Speak simply**, think complicated – not the other way round.

– Main clause. Main clause. Main clause.

– Do not join sentences together too often with »and«. **Pause** instead.
Your audience needs pauses in order to take in what has been said.

– **Avoid weak words such as** (»stop«, »about«, »maybe«, »one could«)

– Replace filler words (»OK«, »good«, »yeah«, »ah«, »hm«, etc.) with pauses. Regular video- or audio feedback helps.

– Be verbally responsive to **all learning styles**: **visual** (show pictures to your audience, use phrases like »as you can see here ...«, »our insights were...« and underline what is said with gestures), **auditory** (use your voice, emphasis, allow your audience to express and write down certain content themselves – employ phrases such as »perhaps you have already heard of this...«, etc.), **kinesthetic** (use words like »imagine«, »conceive«, »feel«, «to touch« - pass around objects to observe).

Articulation

– As **naturally** as possible, be authentic! Be confident in yourself, your experience, your background.

– Goal: free speech by means of fewer key words. Notes are allowed (index cards or notebook, no loose sheets).

– **Modulate** your voice (speak loud, speak quietly, speak slowly, speak fast) – this creates energy.

– **Emphasize** important points. Underline the essentials with your voice, stress them. This will make your speech lively.

– Make ample **pauses** in your speech. Your listeners need them because they are not as familiar with the material as you are. What is a point for the reader is a pause for the listener. Pauses are pauses to think, not pauses from thinking!

– A longer pause is the most valuable verbal tool to underline an important preceding sentence. Pauses that result from a loss of

train of thought are rarely noticeable. Gather your thoughts and continue as normal.

– Tip for **quick speakers**: End every sentence with a 5-second pause (they will then last for 2 seconds, which fits perfectly). By doing this, your speech will automatically become slower.

- Choose your **natural rhythm** for every sentence:
  - Say your sentence.
  - Let your voice drop.
  - Do not say anything else –pause.
  - Collect feedback visually – look at a listener: did they get your message?

- **Speaking without a microphone:** Speak loudly, in a strong voice – so that those sat at the very back can still hear clearly. In the case that you are naturally a quick speaker, reduce your pace or you will lose your audience.

- **Speaking with a microphone:** Speak at your normal volume – with a microphone you can even speak rather quietly – and you should speak even slower and clearer than usual (due to echo-effects).

- **Eat cork :-)** To practice speaking lucidly and clearly, there is a nice exercise that will help: Put a clean cork (such as those used in wine bottles) in your mouth and practice saying difficult passages out loud. Afterwards (without the cork…), you will be able to say these passages more clearly on stage.

- A slight **dialect** and language »mistakes« are charming. They do not disturb your presentation.

Body language

- **Posture:** Make sure you have a secure **stand**. Legs shoulder-width apart.
  Your free leg can rest slightly in front of your supporting leg. If you sit: erect, with your hands in view. Count on your **natural ability** to adopt a good posture. Talk facing your audience, **never facing the wall** / projection surface. Be alert and find a relaxed body tension. You lead throughout the presentation. The attention of the listeners should belong to you and not the screen. This is more difficult if you sit.
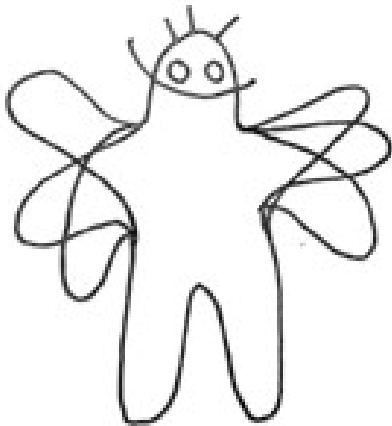
- **Gestures:** Gestures support speech. Underline your main points with gestures. Allow your hands to speak too. As you prepare your talk, prepare your gestures. Write down which gestures you want to apply when. The verbal message follows slightly after the gesture.

- **Facial expressions**: Facial expressions say very much. Abstain from grimacing. Try not to look too serious or too impassive. Allow yourself to smile from time to time.

- **Movement within the room.** Do you have enough space to hold your speech or are you hidden behind a flip chart or rostrum? If you stand around the whole time as if rooted to the spot, your speech can also »remain static«. Use the room at your disposal without running around chaotically. You may slowly follow a lying »8«.

- **Abdominal breathing: Breathe relaxed into your stomach.**

A few rhetorical tips

Tips for the beginning

− Your audience pays you the **most attention** at the beginning and the end. *The beginning shapes, the ending sticks.* Therefore, you should prepare both parts thoroughly. It would be best to learn a few sentences in each case off by heart. When you realize, you said something differently on stage, don't mind.

− Begin **crisply, dramatically, visually;** neither with an apology nor off-handedly (»when I was asked, if I should say something today, at first I wasn't sure…«)

− **Do not make apologies** (»I can't really visualize.... There was so much to do – I didn't have much time to prepare... «)

− Current **events:** »In the newspaper this morning ...«, »An article appeared last week in the xyz journal...«, »Yesterday evening on television you could ...«.

− Rhetorical **questions:** »In which direction will genetic engineering develop?«, »What will next year be like?«, »How do you oversee such crises?«.

− **Thesis** and antithesis: »Internal or external studies ...«, »Act or react...«, »Sales or acquisition ...«.

− Directly **address** the audience:
»Every day you face the question ...« »As a scientist, you ...«.

− Visual or acoustic **effects:** »This is ...« (Snapshot of a study, a bacterium ...
12 days old, ...). Or »You are listening to...« (Audio files in relation to the content or as a metaphor).

− Close the door audibly for all.

− **Remain silent** until everyone is concentrating on you.

− Begin in a way that **is not expected** by the audience.

− **Directly address** individual audience members »Mrs. Bach, you asked me this morning ... and from this you have addressed the core problem of what we are discussing today…«.

Tips for the main body

– Give a (very short) **overview**, of what you will talk about. A visualization of how the presentation will progress in some areas can be successful (i.e. put up flip chart sheets)

– Your **voice** is your instrument! Use it purposefully. Vary the volume, pace of speech and pitch of the voice to substantially accentuate, to clarify links, to sharpen attention.

– Build **short, clear sentences** with selected pauses.

– Use **commonly used words**; when you are not talking to professionals, be careful when using specialized vocabulary. Even then, use it modestly.

– Underline your evidence with your **gestures**.

– Indicate work on pin-boards or flip charts directly with your hand, not with the use of objects.

– Compose your speech through **guiding questions**, in order to switch on the attention of the participants.

– If time is tight, remove complete subsections without pointing this out. In PowerPoint you can go to any slide by entering the slide number and pressing "enter" thereafter.

– Do not overrun on time! Only a few complained about too short talks.

– For proper time-management: decide A-B-C priorities for all parts of your talk and design it in a way, such that it can be cropped from the back.

Tips for the closing

– End **concisely.**

– Succinctly outline the fundamental points for a final time.

– Make an **appeal**, if you want to challenge the participants to take action; offer them **active support**, if the participants should implement something new!

– **Thank** your participants. Avoid uttering shallow conclusive phrases such as »we are now coming to the end«. From this point on, no-one is listening anymore.

– In a conclusive discussion, set concrete goal objectives and a time frame in which to complete them, and pass over to the host of the discussion.

– Let the Q&A session be the penultimate step in your talk. Thereafter, close with a planned ending. Doing so, you keep control.

Presenting Data (showing a Data Slide)

1. **Preview** before(!) showing the slide – announce briefly what will come.
   Only then show the slide. This shows the audience: you are in control of your slides – they don't control you! A big sign of professionalism.
2. **Guide** them through the slide (1-2 sentences)
3. **Highlight** the important parts.
4. Give **spin** to the image – explain / summarize the significance of the data just presented.

Example:

1. Preview: "The next paragraph shows an example of an ROC Plot comparing BLAST and CSSM-Blast."
   Only then show the slide!
2. Guide: "Here you see the true positives, here the false ones. "
3. Highlight: "First, notice the rapid increase of true positives measurable by CSSM-BLAST plotted in red. This differential reaches a maximum at about the 50th false positive, after which no new true positives are detected by either method. "
4. Spin: "This graph demonstrates that CSSM-BLAST detects more true positives when compared to BLAST."

(compare Morgan et al. 2006: p. 63)

Stage fright

- A basic portion of stage fright is completely **normal and important!**
  It emerges as a result of the distribution of adrenalin. Use the surge as creative, motivating energy for a lively presentation. Think back to an exciting rollercoaster- or kayak trip – here both the daunting thrill and feeling of happiness are extremely close to one another.

- Put your ambition into the **preparation**, not into the presentation. Preparing well, practicing, and orientation in the room reduce stage fright enormously.

- Pay particular attention to good technical knowledge, a clear organization, comprehensible examples and well-prepared media.

- Directly before you go on, take a few moments to breathe deeply.

- Also during your talk: concentrate on **deep, calming breathing from the stomach**.

- A »wobbly« voice at the beginning is normal, **do not worry**. For the most part you will appear much more settled than you feel!

- Create a **»safe place«**: Think back to a situation where you felt at peace, happy and deeply fulfilled. With all your senses, put yourself back into this situation – for a few minutes. Then give your situation a name – a magic word that easily reminds you of this situation. Whenever you think of this word, let yourself fall back into this situation, this state of mind. You can use this on stage by creating a safe place before your presentation: A position in the room where you are still in good view of the audience, e.g. to the left of the flip chart, by the window, etc. There you can think of the magic word and allow yourself to move into this situation before, and during, your talk.

- Use a **lucky charm**, your soft toy or something else which gives you strength.

- Place a person **in the audience** who you trust, someone who is reassuring. Arrange a »**secret**« **signal** with that person that will give you a feeling of security.

- Arrive early, relax beforehand, **and welcome the participants** in the time leading up to the presentation.

- Walk knowingly to the front and open intentional deliberate contact with your listeners. In addition, learn the beginning off by heart.

- Use the rhetorical means of question – this frequently breaks the ice and involves the audience.

Rules of feedback

Ask for feedback at every presentation. Feedback is an excellent chance to grow and to help others. Use it.

Giving feedback

Consider how those you give feedback to can best take it all in. What did you need in their situation?

Promptly.

Only criticize what can be changed. Not too much at a time.

Only give feedback when it is asked for. Ask what will be of interest.

»I noticed ...« instead of »you did ...«.

Always just the idea / the content / the performance, never the person themselves.

Specific, not generalized. No »always when...«, »you are never...«.

Begin with the positives. Connect critique with »and« instead of »but«.

Accepting feedback

Put yourself in a position to receive a gift. Every feedback is a chance to grow, which is only possible with help from others.

Listen openly, remain silent when accepting feedback. No justifications! At most, just questions to clarify. (This does not apply to public Q&A sessions. Here you may want to justify your approach).

Write down the individual points.

Try to really understand the feedback: Let it take affect – best overnight.

Do not take it personally.

Thank the person for their feedback.

With hurtful feedback: leave it »with whoever said it«. It says more about the giver than it does about you.

Appendix

Mind mapping – to brainstorm, structure and plan
Useful techniques, developed by Tony Buzan. Hand-drawn mind maps are often constructed more quickly and feel more intimate. Digital maps are expandable and modifiable.

How to draw up a mind map
Page in landscape format, topic in the middle
Sub-topics displayed on branches and sub-branches
Key words in printed characters along the lines
Apply text & images & symbols & graphics
Use your own color codes, create categories

Software tips
PC: Mindmanager – www.mindjet.com
PC/Mac/Linux: XMind – www.xmind.net (freeware)
PC & Mac: Freemind, Java-based Freeware – freemind.sourceforge.net
Mac: Concept Draw – www.conceptdraw.com
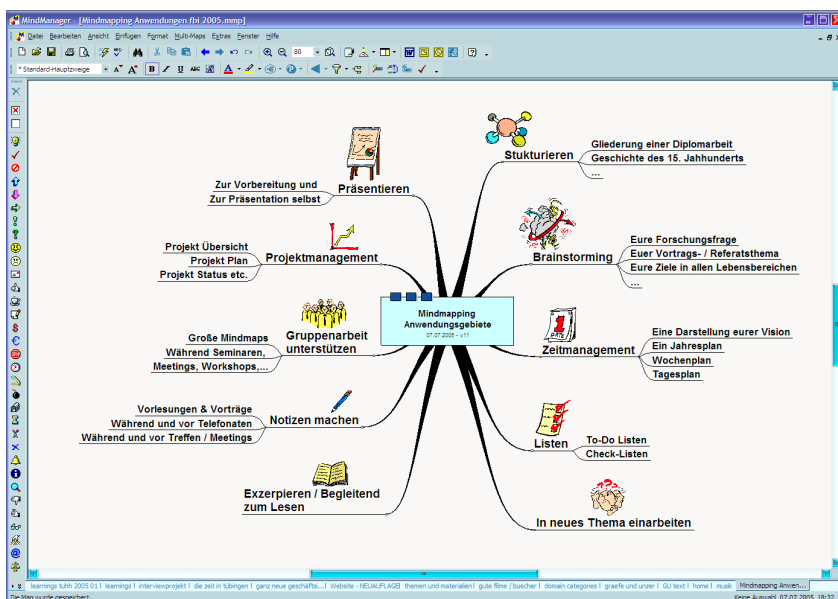
Mini-PowerPoint-tutorial

In order to learn some basic PPT features, please open a new presentation (just for learning purposes) and try out the following. Place a checkmark on the right side once you know how to do it.

Use of slide masters
Use two different masters: a title and a slide master. Create your slides
based on these two master slides. Save a good master as template (.potx).
Use your master for all upcoming presentations.
        ( )

How to use screenshots
Copy the visible content of the screen to clipboard –Windows platforms:
- Whole screen: CTRL & PRINT-KEY
        ( )
- Active window: CTRL & ALT & PRINT-KEY
        ( )

How to crop an image

Use the proper tool from the graphics tool bar.
      ( )

How to cut make the background of an image transparent

Use the proper tool from the graphics tool bar.
      ( )

Fine-tune an object's position
Place an item by first selecting it and then moving it:
      ( )
- Large steps: ARROW keys
- Small steps: CTRL & ARROW keys

To train, place a copy of a text field exactly on its original.

How to duplicate an object
Press ALT while clicking and dragging an object
        ( )

Press SHIFT and ALT to duplicate object along vertical or horizontal axis.

How to use guides
Menu: View / Guides / Static Guides: Ctrl G (command G)
( )
Press ALT while clicking on a guide.

Consecutive appearance – user defined animation
Create a slide in which single items become visible one after the other. ( )

Use slide transitions
Try out different slide transitions (try "without", "over black").
( )

Set line spacing
Menu Format / Paragraph: Spacing: Multiple 1.2

This results in a 120% line feed which looks quite good.
( )

Text box internal margin
Double click text box, set text box internal margin left, right, top and bottom to zero. This way your text will align with your guides.
( )
Use ordering
Change the layering sequence amongst several overlapping visual items.
Arrange: Send to back, ...   ( )

Reduce file size
At the end (with a copy of your file): try to reduce the file size by automatically reducing all images to 96 dpi.
( )

How to toggle upper and lower key
In Microsoft applications: Select text, then SHIFT & F3.
( )

In presentation mode:
( )
- press **W** for white screen
- press **B** for black screen

- enter **slide number** and ENTER for jumping to a specific slide,
  e.g. „1"-„4"-ENTER for jumping to page 14.
- press **CTRL + P** for pencil
- press **CTRL + A** for arrow
- press **CTRL + E** for eraser

Further training: online PPT courses
office.microsoft.com/en-us/training/CR100654571033.aspx

Possible problems in combination with PPT:

Videos – Be careful with including video: often it only appears on the computer screen, not on the projection! Whenever you use it: test it with the original projector.

Unusual fonts – Be careful using non-standard fonts: all fonts you use have to be installed on the machine where you run your presentation. So if you conduct your presentation on another machine, be sure to install all necessary fonts before – or use the Pack & Go dialog, this creates an installer that can include fonts. Alternatively, show a PDF version instead. Here you don't need to install fonts. But include them into the PDF before printing.

Worksheet to create convincing arguments – 1

Point-of-view pattern	
1. Point-of-View / These	
2. Reason (pro) (justification)	1. 2.
3. Examples	Ad 1. Ad 2.
4. Conclusion	
5. Core message / appeal	

Sequential pattern	
1. Situation oriented introduction	
2. First,... / On the one hand...	
3. Second,... / On the other hand...	
4. Third,... / Furthermore,...	
5. Core message / appeal	

Worksheet to create convincing arguments – 2

(Chrono-) logical pattern	
1. Situation oriented introduction	
2. In the past ... / Evidently ...	
3. Today... / From this it follows ...	
4. In future ... / This leads stringently ...	
5. Core message / Appeal	

Pro & Con pattern	
1. Name the topic	
2. Reasons pro	1. 2.
3. Reasons contra	1. 2.
4. Conclusion / own point of view	
5. Core message / appeal	

Worksheet to create convincing arguments – 3

Compromise pattern	
1. Situation oriented introduction	
2. Position A	
3. Position B	
4. Third Solution	
5. Core message / appeal	

Problem-Solving pattern	
1. **Current situation shortcomings, effects if unchanged**	
2. **Goal** **It is essential that ...**	
3. Different possible solutions	
4. The best solution	
5. Core message / appeal	

1. Presentation-Checklist (47)

Weeks before

Please use copies of these checklists to prepare for future presentations.

Deliver a worthwhile content to your audience. Begin early with your preparations.

Organizational

○ Explore the **room** & "take possession of it" (ritual).

○ Check the **equipment** (projector, light, microphone, flip chart etc.).

○ Order the presentation materials you need (flip charts, pens, needles, etc.)

○ Check time, place & contact partner (directions, technics, assembly etc.).

○ Know exactly how much time you have (w/o Q&A?, will you be introduced?)

○ **Trial run** 1 week before. Test *everything* on the actual projection.

Target audience

○ Who is coming? Names? Knowledge? Interests and goals? Expectations?

○ Personal and occupational details - background, problems, wishes.

○ Possible questions, criticism?

○ How can I be of most use to these people?

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1. Presentation-Checklist (48)

Your goal

○ Define the goal of your presentation (write it down!).

○ Which 3 core messages should »they take away with them«?

○ What should your listeners do / think / feel after the talk?

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Content

○ Design the story, your arguments.

○ Find figures & facts, examples, graphics, metaphors, etc.

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Media

1. Presentation-Checklist (49)

○ Design and create your transparencies.

○ Handout? / Website?

○ Write out speech notes in key words.

Language

○ Vocabulary (understandable, fewer technical terms).

○ Sentence structure (Main clause, main clause, main clause).

○ Find comparisons, contrasts, lists of 3, alliterations, rhymes, quotations.

Dress

○ Wear comfortable clothes, slightly overdressed.

○ Have your clothes ready in due time.

Q&A Preparation

○ Possible criticism and how I will respond.

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1 Week before

○ -All materials for presentation created, brought together

○ Dress prepared

○ What do I want to improve this time (content, media, on stage):

1. Presentation-Checklist (50)

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○ Write out beginning & ending

○ Create notes for yourself

○ Practice, practice, practice

The evening before

○ What do I have to take?
Documents, slides, handouts, notes, water, lucky charm, etc.
Create your individual presentations packing checklist.

○ In which inner state do I want to be tomorrow?

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Day of the presentation

○ Prepare room and technical equipment

○ Relax

1. Presentation-Checklist (51)

Get into the right state

Links & literature

Web resources

Tips by Roger **Darlington**
www.rogerdarlington.co.uk/Presentation.html
www.rogerdarlington.co.uk/Speech.html

10 inspiring presentations
www.squidoo.com/bestpresentationsever

Peter Norvig - The Gettysburg Powerpoint Presentation
www.norvig.com/Gettysburg/

Where to find photos

Free images
1. www.sxc.hu
2. www.morguefile.com

Low cost
3. www.iStockphoto.com
4. de.fotolia.com/id/7480028
5. www.dreamstime.com/

Professional
6. www.gettyimages.de
7. www.plainpicture.de

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http://www.nature.com/scitable/ebooks/english-communication-for-scientists-14053993/118520778#bookContentViewAreaDivID

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Your notes:

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