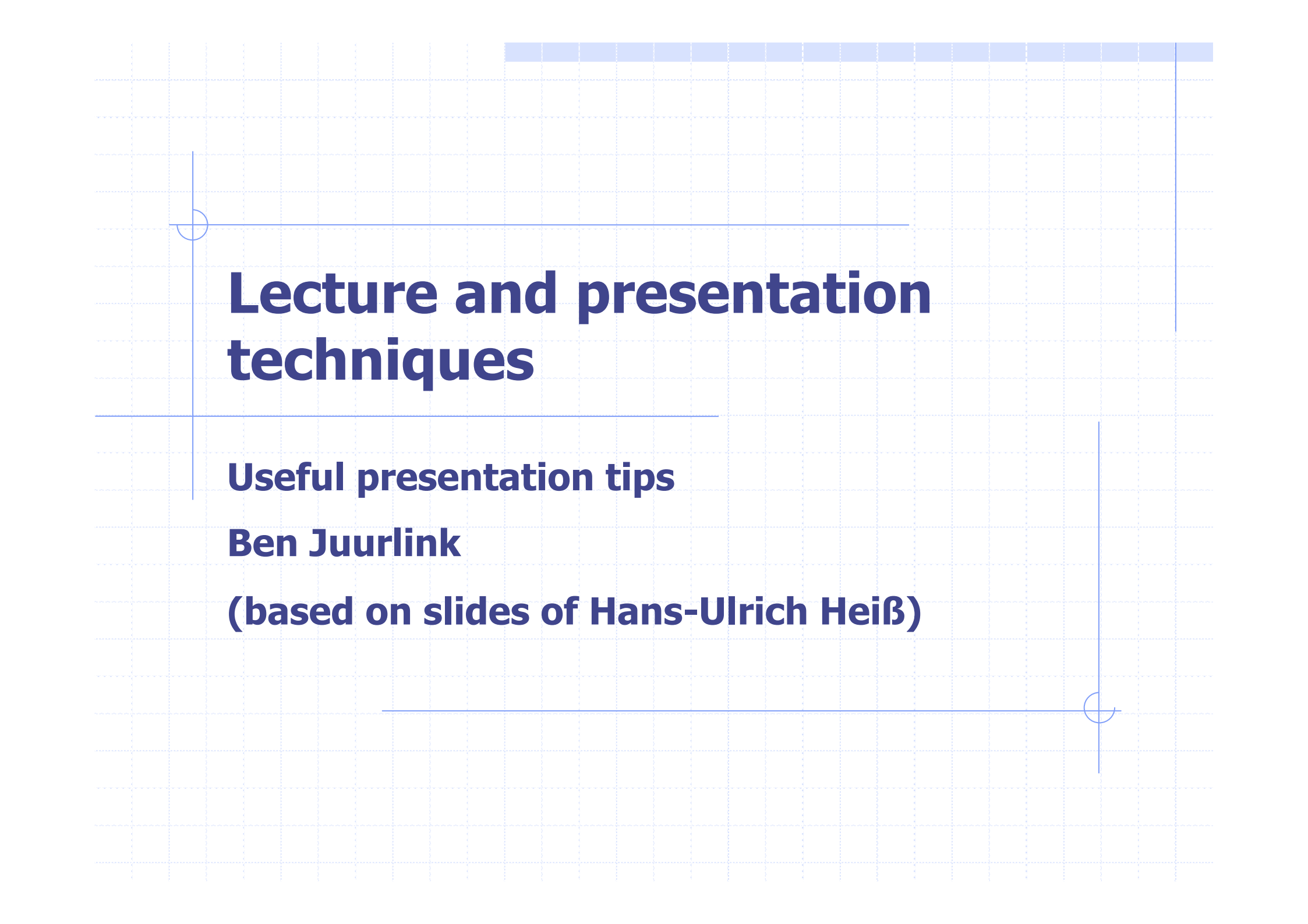




Lecture and presentation techniques

Useful presentation tips

Ben Juurlink

(based on slides of Hans-Ulrich Heiß)

Disclaimers

- Slides due to H.-U. Heiß, but I can only guess what he wanted to say
- I'm not a natural born speaker, but have attended enough bad talks

Aspects of the presentation structure

■ preparation

- context of the presentation
- audience
- structure and content
- technical aspects

■ performance

- gesture, mimic, voice
- layout and design of the slides
- time management

■ follow-up

- learn from mistakes

Aims of the presentation

What is the intention of my presentation?

- **to convince**
- **to arouse interest**
- **to amuse**
- **to create awareness of problems**
- **to explain facts of a case**
- **to support a hypothesis**
- **to refute a hypothesis**
- **...**

What kind of audience is listening?

- **number**
- **social composition**
 - homogeneity
 - age
 - gender
 - education
 - ...
- **state of knowledge**
- **expectations of listeners**
- **bias or prejudice**
- **physical state (tired, hungry,...)**

Elements of content

■ elements of orientation (introduction)

- salutation
- formal presentation of the speaker
- „Captatio benevolentiae“ (catch benevolence, flattery) – e.g.,
Highly educated guests, ...
- overview, structure

■ main part (actual contents)

- Introduction (anecdote, distinctive/provocative phrasing, actual news, interesting facts, rhetorical questions...)
-

■ closure

- conclusion
- summary
- continuation

Every presentation has an ending!

What the speaker wanted to say



What the speaker has really said



What the listeners heard



What the listeners understood

Structure of a presentation

- **in chronological order / historic**
 - First,.... second....
- **problem solution**
 - describe the problem – find a solution for it
- **logical**
 - run a chain of causes and consequences
- **spatial**
 - (virtually) go through a real or a logic room
- **hierarchical**
 - top-down
 - bottom-up
- **enumerative**
 - enumerating particular details and aspects (please avoid)

The golden thread has to be transparent!

Thinking speed

- **speaker imposes his/her thinking speed upon the audience**
- **consequences**
 - search feedback
 - allow questions
 - consider learning receptiveness
 - avoid formality
 - explain terms
 - provide glossary

Time Management

- **consideration of attention span of the audience**
- **realistic test**
 - nervousness during presentation affects time
- **flexible adaptation**
 - too much time: plan extra material (extra slides)
 - not enough time: reduce, skip slides (but think of which ones before)
 - keep track of the time

Language and Voice

■ **comprehensibility**

- standard language
- clarity
- volume
- simple sentences
- breathing technique (abdominal breathing)

■ **vitality / agility**

- modulation
- tempo variations
- breaks
- "struggling" for good formulations
- "speech thinking"

Rhetoric (selection)

- **alliteration:** sequence of words with the same initial letter:
„World Wide Web“
- **antithesis:** contrast of words or ideas:
„My words fly up, my thoughts remain below.“
- **anacoluthon:** aware grammatical error:
“Had ye been there – for what could that have done?”
- **anaphora:** repeating a sequence of words at the beginning of neighboring clauses:
“Mad world! Mad kings! Mad composition!”
- **metaphor:** analogy between two things or ideas:
“Her eyes were glistening jewels.”
- **chiasmus:** cross position:
„He knowingly lied and we followed blindly.“
- **litotes:** understatement by double negatives
“not bad” instead of “good”
“not useless” instead of “useful”

Rhetoric (selection)

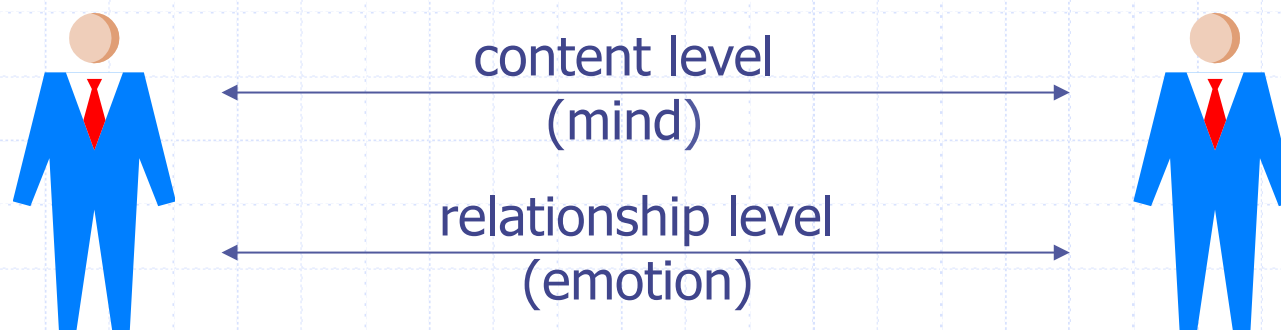
- **hendiadys:** use two words linked by a conjunction to express a single complex idea:
"*sound and fury*" instead of "furious sound", (Shakespeare)
- **climax:** augmentation:
"*...Lost, vaded, broken, dead within an hour.*" (Shakespeare)
- **oxymoron:** inherent contradiction:
"*old boy*"
- **pleonasm:** more words than necessary for clear expression:
"*huge giant*"
- **rhetorical question:** no answer expected
"*What has he ever done for me?*"
- **word play**
"*Time flies like an arrow. Fruit flies like a banana.*" ([Groucho Marx](#))

Free speech

- **do not read a prepared text**
- **trust your associative cache**
- **no cheat sheet if slides are used**
- **slides as the only memory hook**
- **know the next slide**
- **requires appropriate exercise**

Levels of communication

- **“It is not enough to talk about a thing, you have to talk to the people.” (Stanisław Lec)**
- **“Every communication has a content and relationship aspect such that the latter classifies the former and is therefore a meta-communication.” (Paul Watzlawick)**

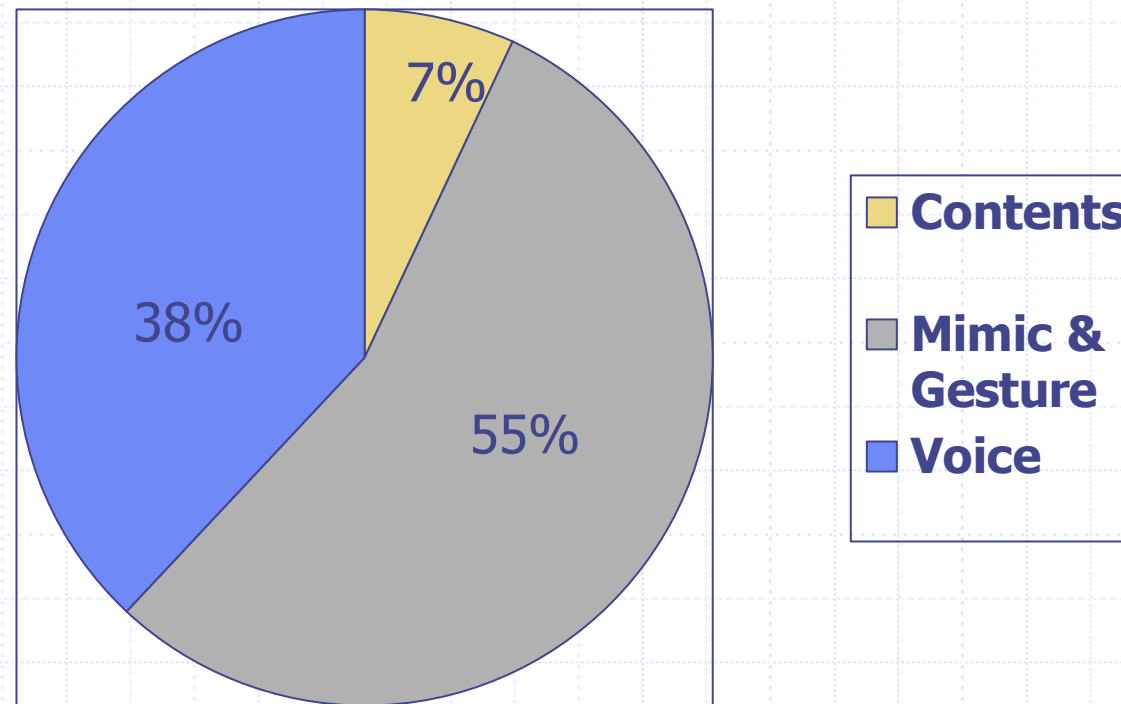


Body language

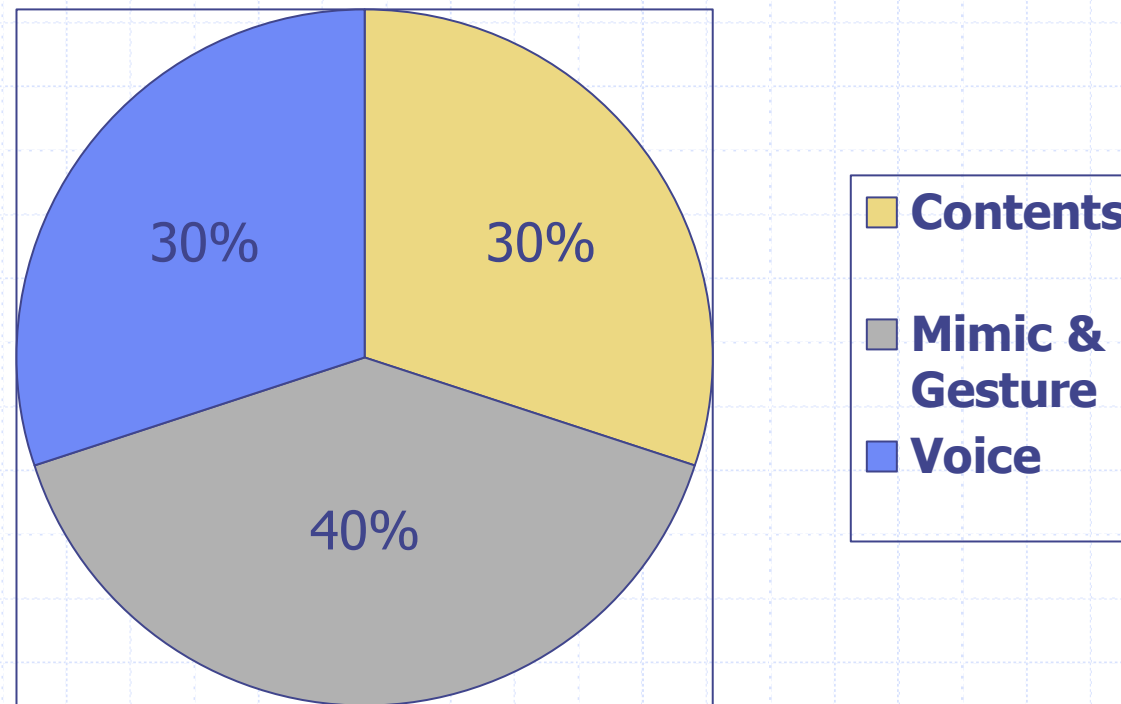
- congruence of linguistic and gestural statement
- vital mimic and gesture
- motion
- **face-to-face interaction**
- attention



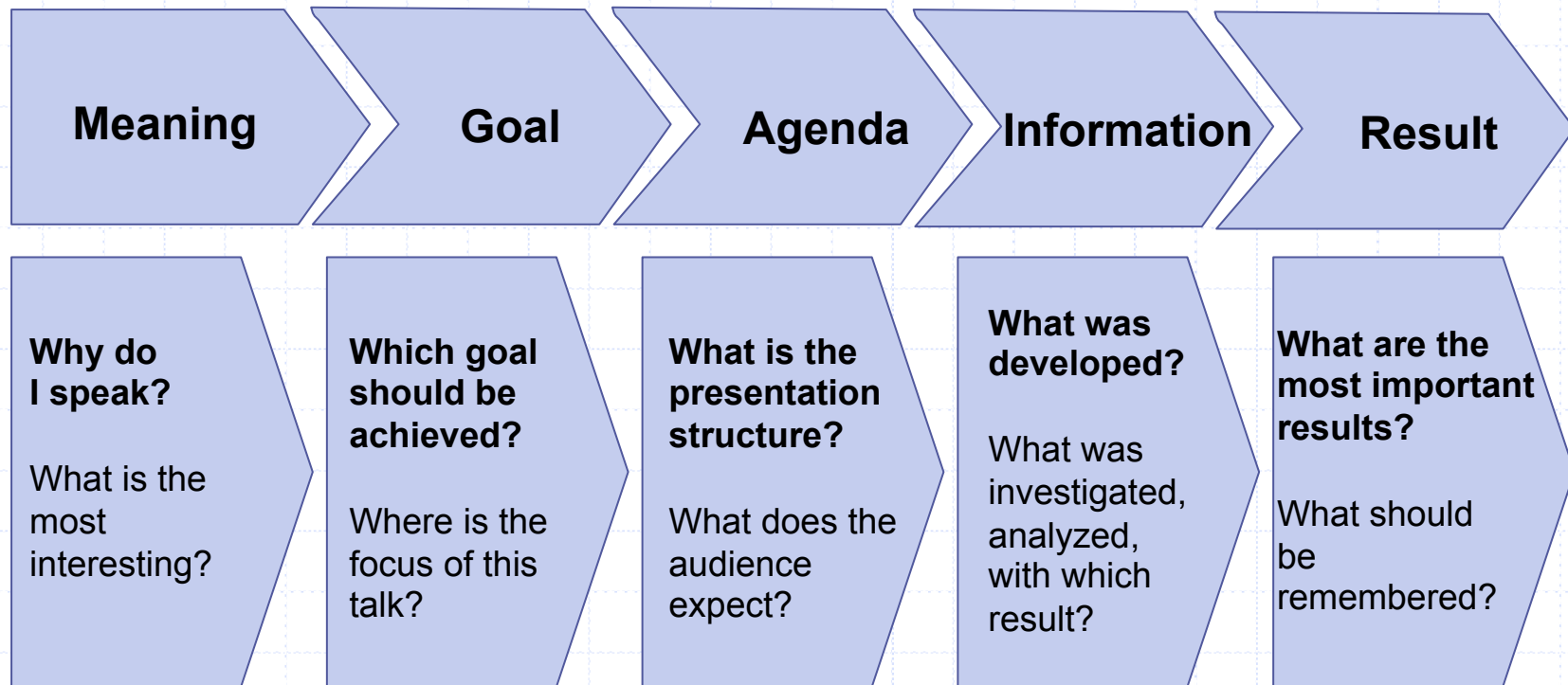
Importance for Sympathy for Speaker



Importance for Memorization of Contents



The Five Steps



■ Availability of resources

- OVH projector available?
- blackboard (chalk, sponge, water)?
- whiteboard (pens, purifier)?
- flipchart (pens, enough paper)?
- beamer available?
- projection screen required and available?
- possible to make room darker?
- sockets (extension cables)?
- network sockets (cables)?
- (laser) pointer?

■ OVH projector

- where to switch on/off?
- where to focus?
- warm-up period?
- spare light bulb?

■ Beamer

- on-/off-switch/standby
- focus / zoom / trapezoid correction
- display connector (laptop/desktop)
- display resolution
- switching to external display
- laptop battery full?
- power safe mode setup for 'presentation'

Dealing with breakdowns

- **prevention**
- **keep calm**
- **small glitches (e.g. spelling mistakes) can be ignored or skipped gently**
- **larger breakdowns are to be mentioned**
- **help:**
 - short break
 - humorous comment
 - make problem subject of discussion
 - beg the auditorium for help

Slide arrangement

- **supports the spoken word**
- **eye-catching design**
- **notes**
 - for the auditorium to memorize
 - for the speaker as reminder
- **illustrations**
- **ideal: One slide per coherent aspect**
- **orientation aids for the auditorium**

**The speaker is the center of interest,
not the presentation slides!**

■ Orientation aids (Beginning)

- title
- speaker(s)
- overview, structure
- context, overall topic

■ Main part (actual contents)

-

■ Closing

- evaluation
- summary
- continuation/outlook

Slides: Layout

Essential:

- heading
- page number

Optional:

- logo
- names
- date
- navigation elements (structure visualization)

- use sans-serif fonts for slides (e.g. Helvetica, Arial, Lucida, Tahoma)

Serif fonts (e.g. Times Roman) more appropriate for texts (newspapers, books,...)

- no mixture of **several fonts**
- be spare ***with* font decorations and effects**
- **color is good, but use with concept:**
 - Associate each color with a function
 - Use colors consistently

Not all colors match

This is a text

This is a text

This is a text

This is a text

This is a text

This is a text

This is a text

This is a text

This is a text



Readability

It is bad when more than eight words are used in a single line, because the text will be badly readable, when having a typical view distance to the presented slide. Furthermore, hyphenation should not be used punctuation should be correct and a border should be used. In general, complete sentences should be avoided.

Use the space!

Font size (1/2)

- This is 12 points
- This is 14 points
- This is 16 points

(mostly) to small

- This is 18 points
- This is 20 points
- This is 24 points
- This is 28 points
- This is 32 points
- This is 36 points

■ This is 40 points

■ This is 48 points

(mostly) to large

Depends on:

- **used font**
- **screen size**
- **distance between screen and auditorium**
- **usage:**
 - heading
 - normal text
 - formula
 - axe description

Use illustrations

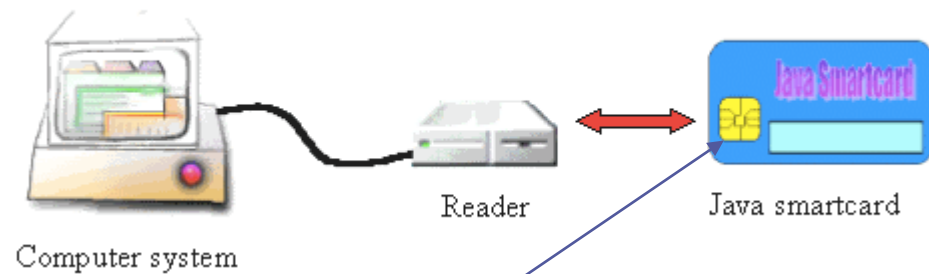
- The more abstract the issue, the more important an explaining illustration.
- “A picture tells more than a thousand words”.
- creativity!
- It's work, but it's worth it
- loosens up the presentation, but might also distract



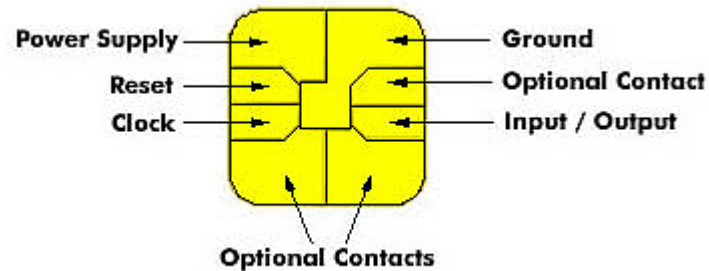
Illustrations: Example

- java-card will be read by a special reader
- contact:
 - power supply
 - reset
 - clock
 - ground
 - input/
 - output
 - optional contacts

This way



Or this way



Diagrams or Graphics instead of Tables

	KL-RB	KL-PM	SA	MFA	Kohonen
200: 5D-H:	10377,1	11280,2	8495,7	8893,1	9725,7
400: 5D-H	20543,8	20527,1	17199,1	18365,2	20078,5
200: 8x4-M	14659,9	16485,4	13556,0	11710,6	15280,2
400: 8x4-M	29827,0	30156,3	28308,7	25208,3	31778,1

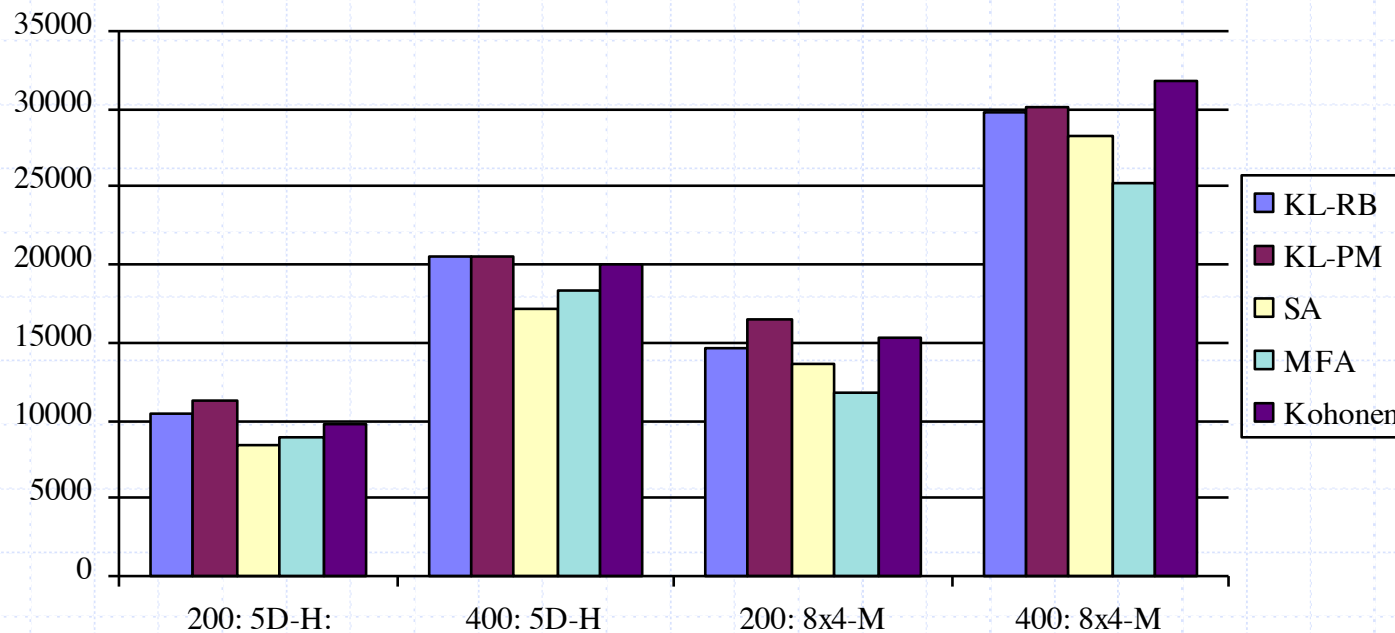


Image Instead of Formula (1/2)

- Given is a communication graph $G = (V_G, E_G)$ and a processor graph $H = (V_H, E_H)$ with unit edge emphasis.
- **Embedding** of G in H is a mapping of the knots in G (*guest graph*) to the knots of H (*host graph*) together with a mapping of the edges of G to the paths of H .
- Formally: $\theta = (\pi_V, \pi_E)$ with

$$\pi_V : V_G \rightarrow V_H$$

$$\pi_E : E_G \rightarrow \text{Set of paths in } H$$

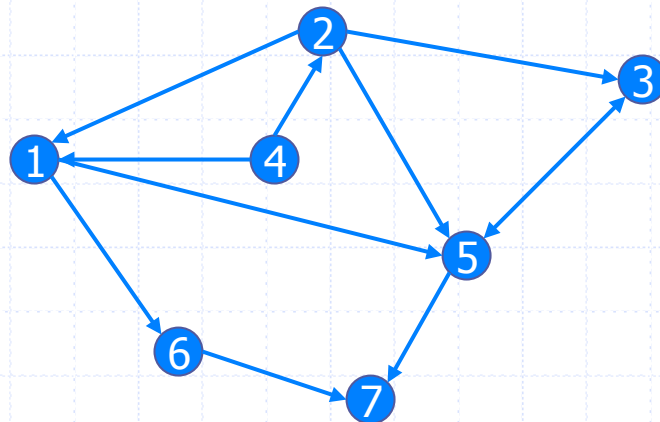
such that

$$\forall e = (i, j) \in E_G : \pi_E(e) = ((\pi_V(i), v_1), (v_1, v_2), \dots, (v_{p-1}, \pi_V(j)))$$

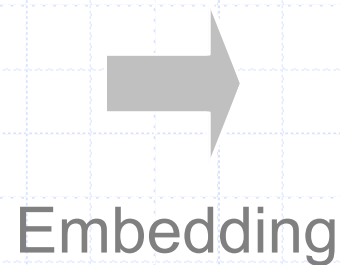
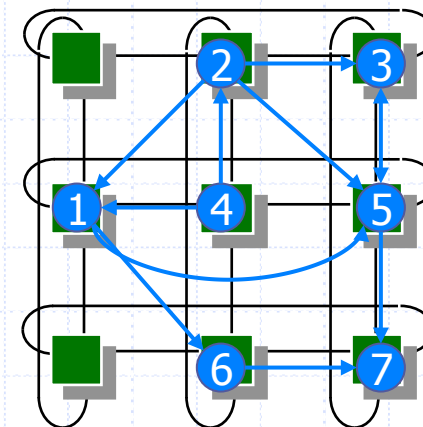
Image Instead of Formula (2/2)

Placement of processes on processors
(**Embedding** the process communication graph into the processor graph)

Processes will be placed such that messages between them are delayed minimally (short distance).



Parallel program



Parallel computer

How many slides?

- Statements of professors fluctuate between 10 and 100 per 90 minutes
- depends on:
 - complexity of slide
 - how much there is to tell about the slide
- reference value: **2-3 min. per slide**
- for a 45 minutes talk this is 20-30 slides

Beamer-presentation etc.

PowerPoint

- dynamic unhide and hide
- animated pictures
- embedding of video
- designed transition of slides
- sound
- branches in the order

Attention:

Do not exaggerate the gadgetry!

Other possibilities

- presentation of software systems
- Internet access

Typical mistakes

- taking too much time
- bad preparation
- wrong estimation of the audience
- no „golden thread“
- to read off
- unreadable or overloaded slides
- insufficient introduction

- **Die Rede hat immer einen Anfang und meistens ein Ende . Was dazwischen ist, ist nicht so wichtig. Der Anfang ist verhältnismäßig einfach. Der Redner kann sich beispielsweise dafür entschuldigen, dass er redet, um es dann doch zu tun. Er kann sagen, dass er von der Sache nichts versteht, und dies sogleich unter Beweis stellen. Er kann den Zuhörern auch sagen, warum sie da sind: Wir haben uns heute hier versammelt, um... Die Zuhörer freuen sich immer, wenn ihnen etwas mitgeteilt wird, was sie bereits wissen.**

Manfred Rommel (*1928), German politician

- **Es gibt eine Anekdote von einem Angelsachsen, der in Tokio einen etwas längeren Eingangsscherz vortrug, den der Dolmetscher mit zwei Worten übersetzte, worauf tosendes Gelächter anhub. Später fragte der Angelsachse einen Japaner, wie sein Scherz übersetzt worden sei. Sagte der: "Gar nicht. Der Übersetzer hat gesagt, alle sollen lachen, und das haben wir getan."**

Fernando Wassner (*1946), German journalist

- **Ich habe meine Rede wie einen Minirock entworfen: lang genug, um das Wesentliche abzudecken, kurz genug, um interessant zu sein.**

Unbekannt

- **Words are like leaves; and where they most abound, much fruit of sense beneath is rarely found.**

Alexander Pope (1688-1744), English writer and satirist

- **The human brain starts working the moment you are born and never stops until you stand up to speak in public.**

Mark Twain (1835-1910), American writer

- Wolfgang Mentzel: **Rhetorik**. Beck-Wirtschaftsberater, dtv, ISBN 3448065331
- Rupert Lay: **Dialektik für Manager**, Ullstein, ISBN 3548364721
- Albrecht Behmel et. al.: **Rhetorik für Studenten**, archo student-online, ISBN 3980840352
- Heinrich v. Kleist: „Über die allmähliche Verfertigung der Gedanken beim Reden“, Werke in einem Band, Carl Hanser Verlag, München 1966





Acknowledgements

■ Thanks to

- Hans-Ulrich Hei for providing the slides
- Bettina Taube, Nicolas Schier, and Stefan Hauser for translating the slides