



ISONOSE

ISO TOPIC TOOLS AS NOVEL SENSORS OF EARTH SURFACE RESOURCES



Scientific talk – motivated, structured story telling

Maja Tesmer - GFZ Potsdam – 11th November 2015

What makes a good presentation?

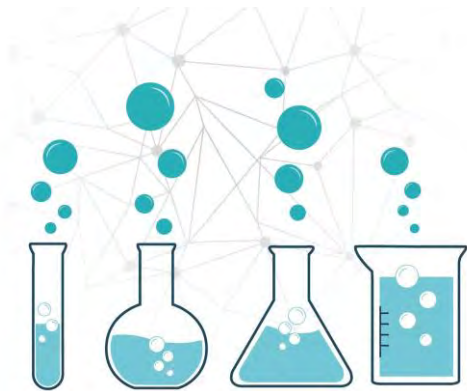
- ⇒ Motivated speaker
- ⇒ Telling a good story
- ⇒ Staying in time



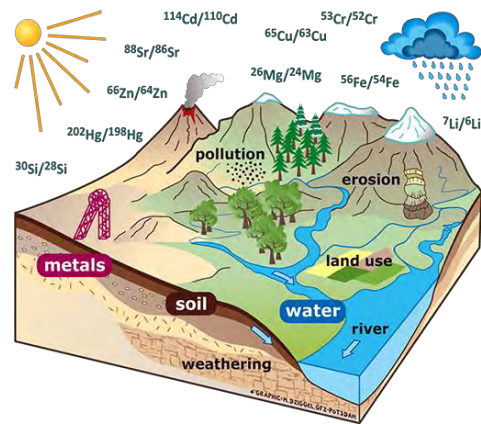
"First webinar?"



What are the ingredients?



Scientific Content



Visual Information



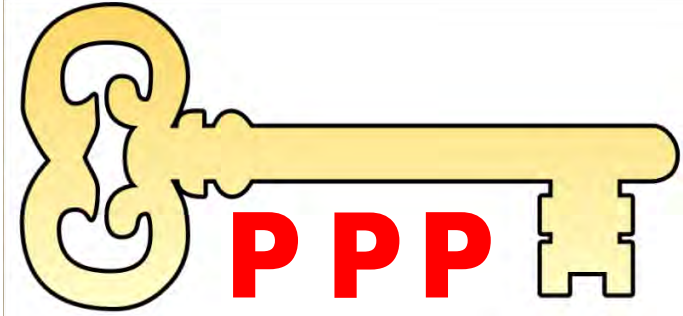
Delivery

How to make a good presentations?

⇒ **P**lan

⇒ **P**repare

⇒ **P**ractice



References



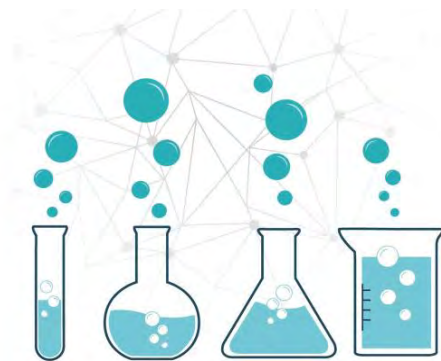
<http://www.sabor.co.at/asterix/>



"First webinar?"
© cartoonstock

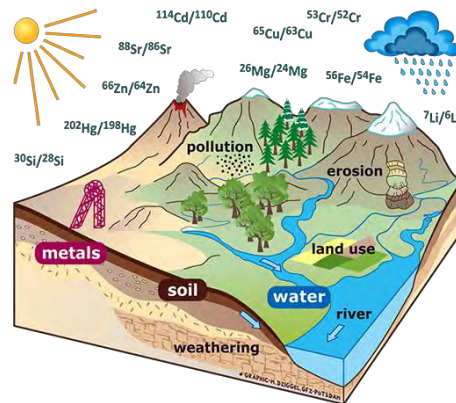


<http://www.physikfuerkids.de/historie/zeit/zeit9.html>



Scientific Content

<http://www.smartinsights.com/ecommerce/web-personalisation/content-personalization/>



Visual Information

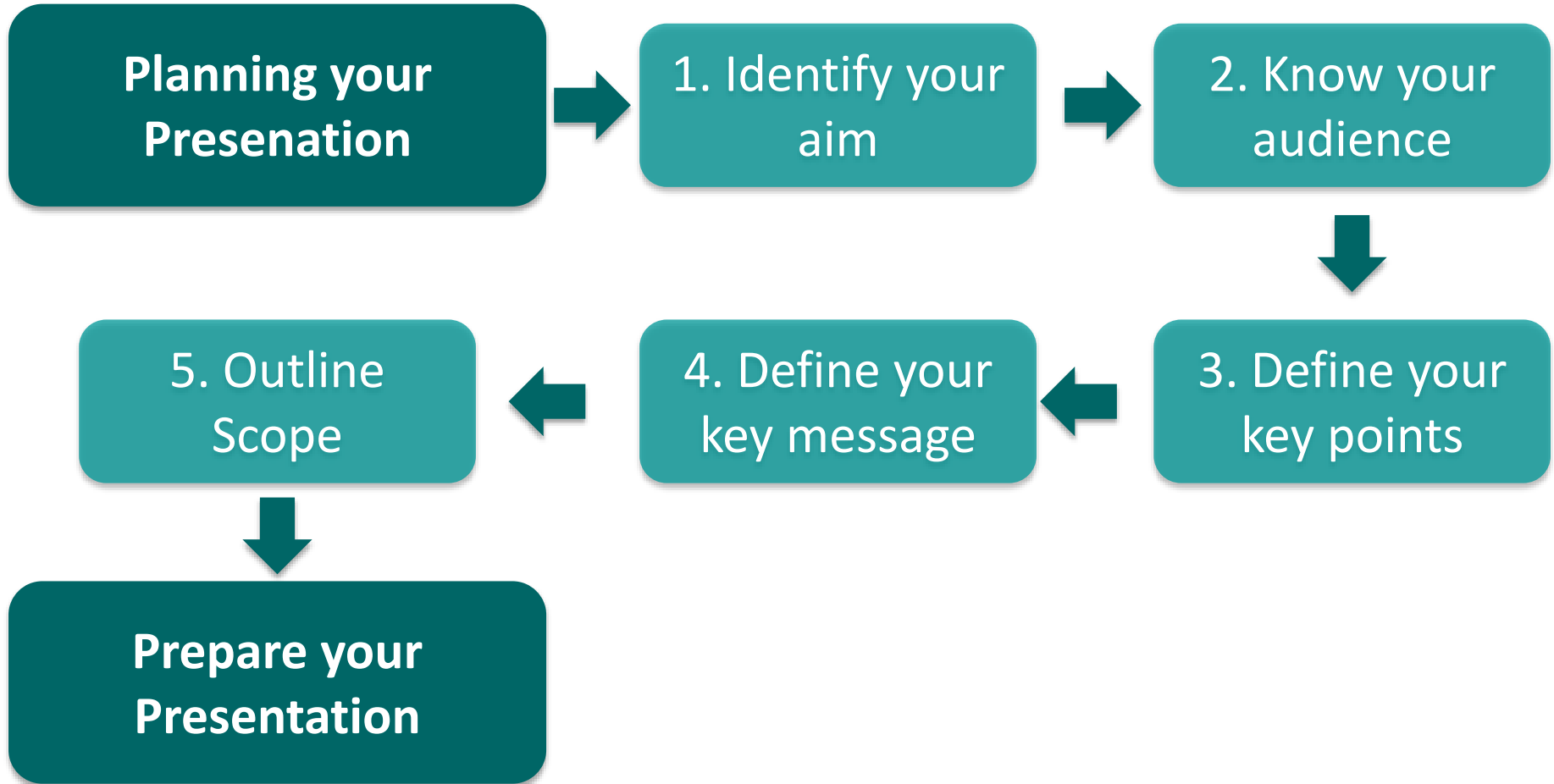
© GFZ



Delivery

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Planning your presentation



Identify your aim

- ⇒ Explain your data
- ⇒ Discuss your work
- ⇒ Network



<http://www.masoncontractors.org/2011/11/18/identify-your-targets/> - November 2015

- ⇒ Inform
- ⇒ Educate
- ⇒ Train

- ⇒ Motivate
- ⇒ Sell
- ⇒ **Entertain**

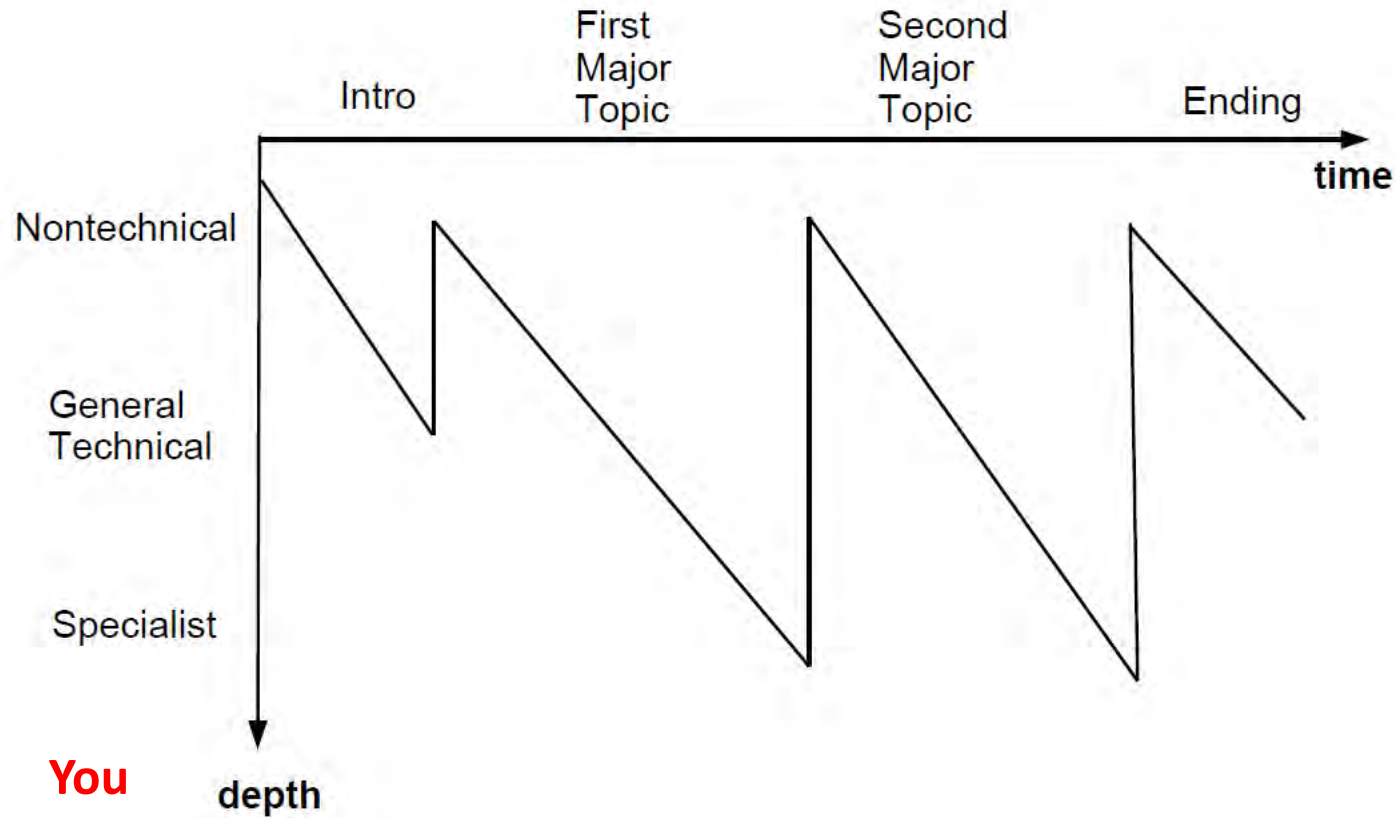
Know your audience

- ⇒ Who?
- ⇒ What do they know or do not know?
- ⇒ What do you want them to remember?
- ⇒ What do you want to discuss with them?
- ⇒ **How can you get them engaged?**

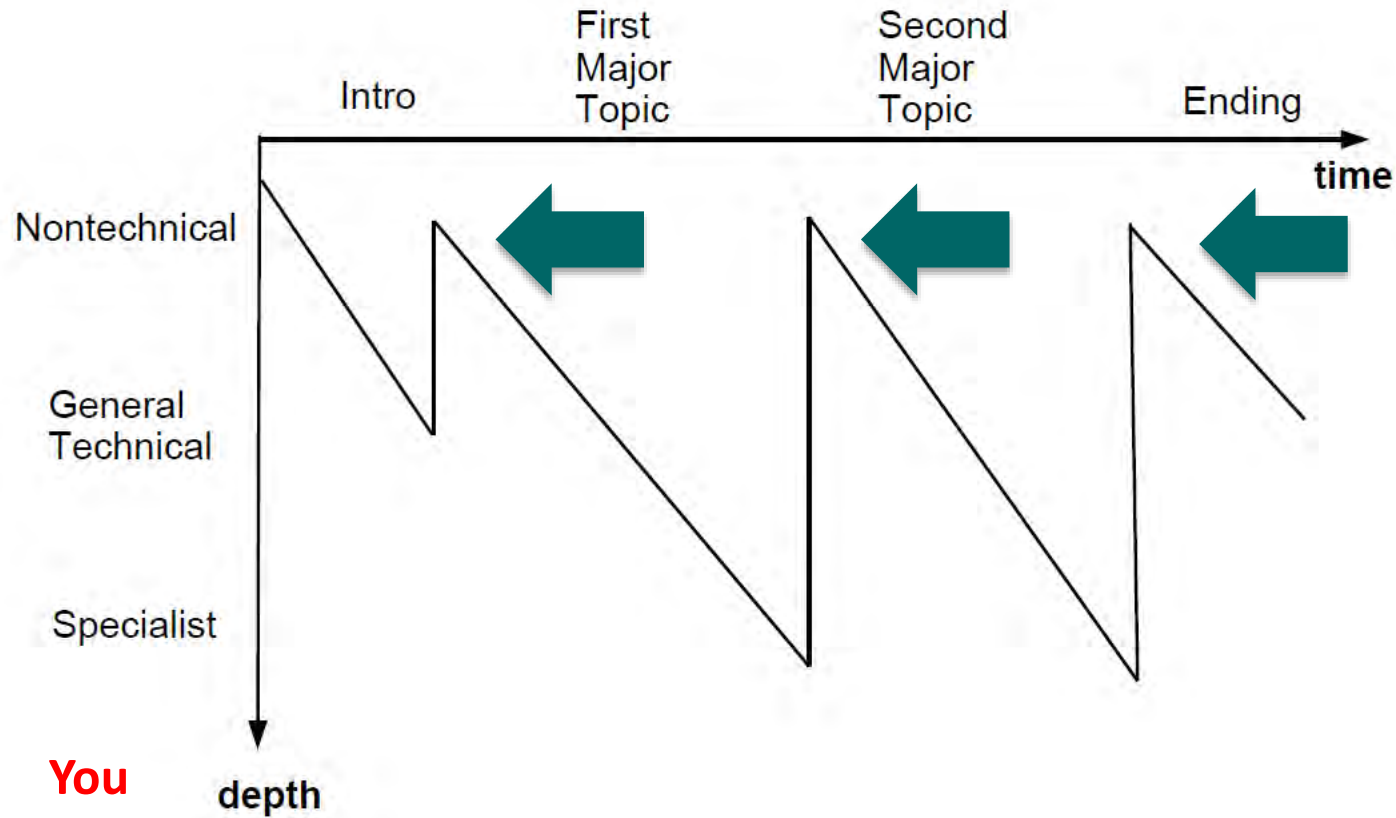


<http://www.fda.gov/ucm/groups/fdagov-public/documents/image/ucm317404.png>

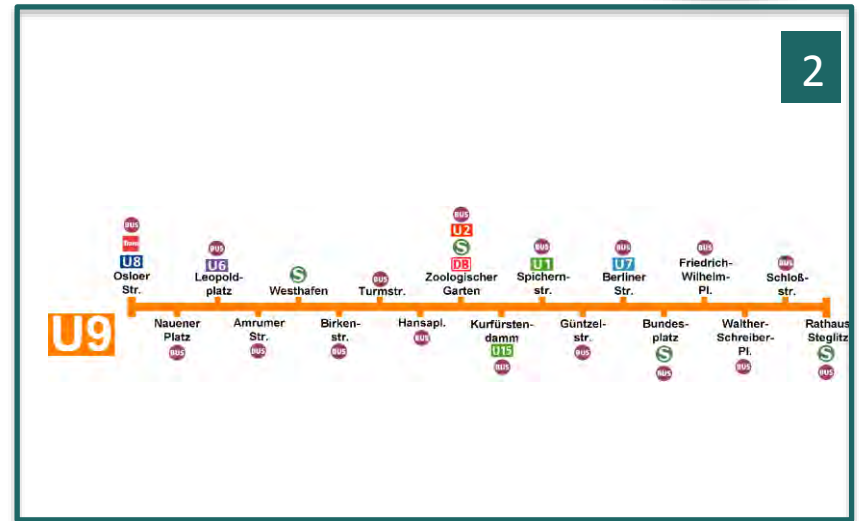
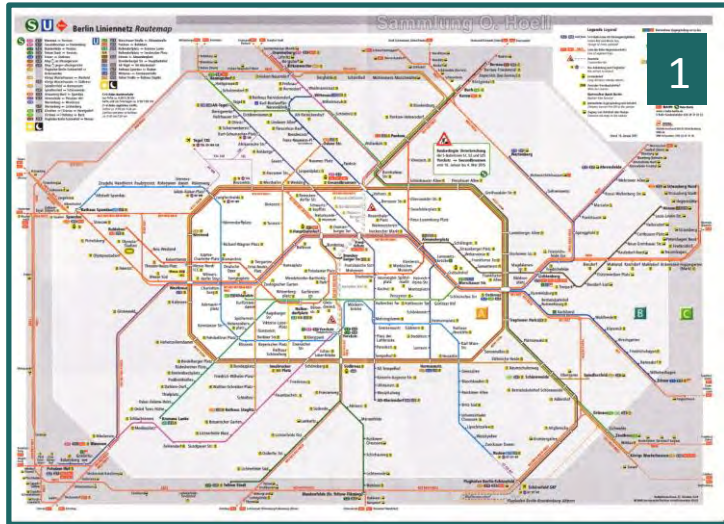
Reaching (multiple) audience



Reaching (multiple) audience



Keep it simple

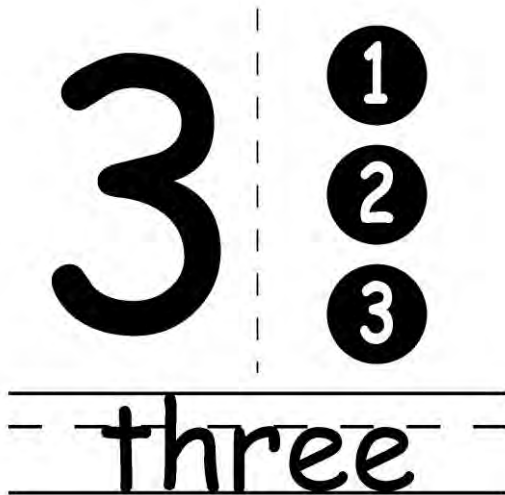


References:

1. http://s-bahn-galerie.de/S_Bahn_Berlin/xPlan_Bln/2015-01-16-S-Bahn-Berlin.htm
2. http://www.haltstellenansage.de/ansagen/u/berlin/u9_en.htm
3. https://commons.wikimedia.org/wiki/File:Berlin_U9.svg

Basic Rule

- ⇒ “Tell them what you are going to say”
- Main message = title of talk
 - Outline = mini version of your talk
- ⇒ “Say it”
- Methods and results supporting your message
- ⇒ “Tell them what you said”
- Outline becomes your conclusions slide
- Introduction**
- Main body**
- Conclusion**



<http://www.theroadgetslongerifistop.com/wp-content/uploads/2013/03/three.jpg>

- ⇒ Three better to remember
- ⇒ People remember max. three
- ⇒ Use lists of three

Exception graphs (two per slide)

1. Conclusion slide
2. Title, introduction slides
3. Result slides
4. Method slides
5. Back up slides



http://www.123rf.com/photo_23883533_time-concept-computer-keyboard-with-hourglass-icon-and-word-save-time-selected-focus-on-enter-button.html

⇒ Outline: “Tell them what you are going to say”

⇒ Outline slide get rid of it at beginning

⇒ Avoid classical one word terms

- ~~Methods~~
- ~~Results~~
- ~~Conclusion~~



Outline if you want to keep it

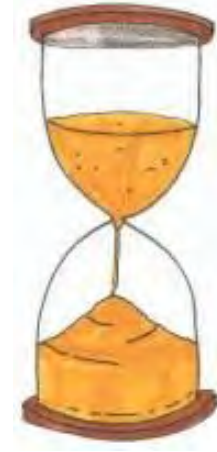
- ⇒ Use several words
- ⇒ Use questions
- ⇒ Use sentences



Examples:

- ⇒ **Introduction:** Hypothesis, objectives, motivation for xyz
- ⇒ **Method:** How to set up experiment xyz?
- ⇒ **Results:** Three evidences showing that hypothesis xyz is correct.

- ⇒ Slides 95% finished three days before
- ⇒ Avoid overdoing layout
- ⇒ Better have less slides than not practicing



<http://www.physikfuerkids.de/historie/zeit/zeit9.html>

⇒ Clear, readable, balanced

- Use the “Rule of three”
- Avoid too much text
- All slides same design

⇒ One topic per slide

⇒ 5 bullet points (maximum)



Wikipedia Commons - © Poussin jean





- ⇒ Arial
- ⇒ Calibri
- ⇒ Tahoma



- ⇒ Times New Roman
- ⇒ Footlight MT Light
- ⇒ *Edwardian Script*

Font Sizes

Font Size 14 point

Font Size 16 point

Font Size 18 point

Font Size 20 point

Font Size 24 point

Font Size 28 point

Font Size 32 point

Font Size 36 point

Font Size 40 point

⇒ *References 14 to 18 point*

⇒ Text: 20 to 28 point

⇒ **Title: 32 to 40 point**

Colour (deficiency)



<http://irtel.uni-mannheim.de/colsys/Itten.html>



- ⇒ Neighbouring colours
- ⇒ Two to three colours
- ⇒ High contrast



Normal vision

Red-green deficiency

<http://understandinggraphics.com/design/designing-for-color-blindness/>

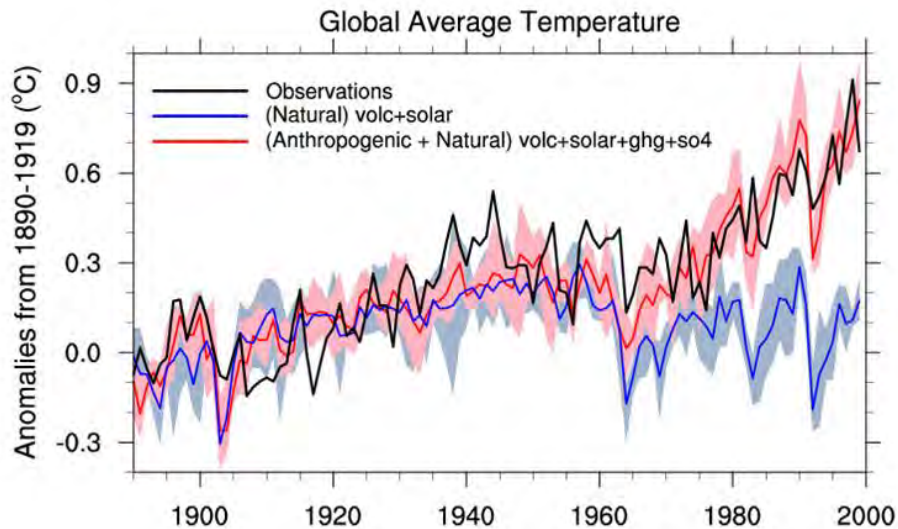


This is ok!

This is not ok!

Figures

- ⇒ Clear, concise, readable
- ⇒ Simplify graphics from papers
- ⇒ Summary: block diagram



<http://dumbscientist.com/archives/abrupt-climate-change>

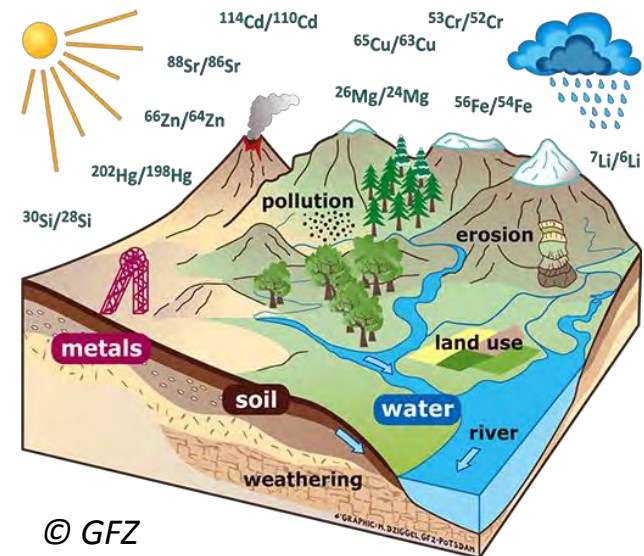
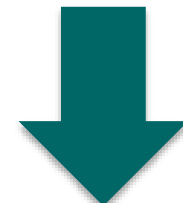


Table 7
Risk assessment, performed for the studied interior basins of Turkey, showing the probability of hydrocarbon discovery. The risk analysis is based on different components of the elements of petroleum system (source, seal and trap and reservoir) and hydrocarbon properties. Risk evaluation is done by assigning a subjective and qualitative risk measure to each petroleum system element and deriving a qualitative 'probability of discovery' by combining the probabilities. Standard probability of an event is defined using a qualitative scale of five levels: certain (C); likely (L); unlikely (UL); very unlikely (VU); and impossible (I).

PSYS	Risk assessment components	Studied interior basins of Turkey				
		MH	PH & TA	S	Ç	
Source	Organic quantity/quality	C	C	C	C-L	
	Maturity (adequate time, temperature)	C-L	L	C	C	
	Migration (primary, secondary)	L	L-EL	C	C	
	Trap, seal timing relative to migration	C	EL	C-L	EL-UL	
	Probability of source	EL	UL	C-L	UL	
Seal & trap	Structuration (trap presence)	C	C	C	C	
	Top seal quality (no serious leakage)	EL-UL	EL	C-L	C	
	Closure volumes	C	C	C	C	
	Probability of seal & trap	EL-UL	EL	C-L	C	
Reservoir	Adequate reservoir thickness	C	C	C	C	
	Porosity and permeability	C	C	C	C	
	Lateral continuity of the reservoir	C	C	C	C	
	Probability of reservoir	C	C	C	C	
	HC properties	C	C	C	N/A	
Probability of discovery	HC quality and concentration	C	C	C	N/A	
	Preservation (no flushing, biodegradation)	C	C	C	N/A	
	Recovery (drive, pressure, desaturation)	C	C	C	N/A	
	Probability of HC properties	C-L	C	C	N/A	
Probability of discovery	EL-UL	UL-VU	UL-VU	L	U	

PSYS: petroleum system; TG: Tuz Gölü basin; MH: Muş-Hınıs basin; PH & TA: Pasinler-Horasan and Tercan-Aşkale basins; S: Sivas basin; Ç: Çankırı basin; HC: hydrocarbon.

Please cite this article in press as: Huvaz, O., Comparative petroleum systems analysis of the interior basins of Turkey: Implications for petroleum potential, Marine and Petroleum Geology (2009), doi:10.1016/j.marpetgeo.2009.05.002



	Tuz Gölü	Silvas basin	Cankiri basin	East Anatolian basins
Source	50:50	certain - likely	unlikely	50:50 to unlikely
Seal & trap	certain	certain - likely	certain	50:50 to unlikely
Reservoir	certain	certain	certain	certain
HC properties	certain - likely	certain	N/A	certain
Probability of discovery	50:50	likely	unlikely	unlikely- very unlikely

Bullet points > 5: „Stay to three“

- ⇒ Explain your data
- ⇒ Discuss your work
- ⇒ Network

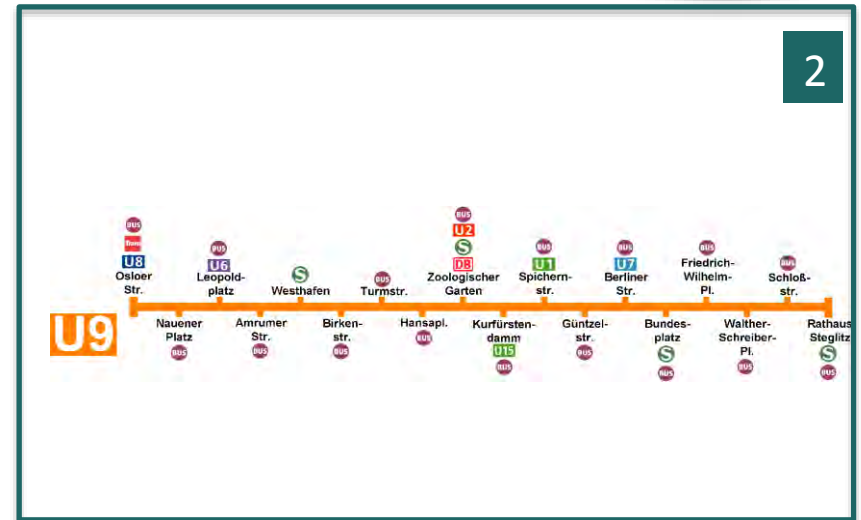
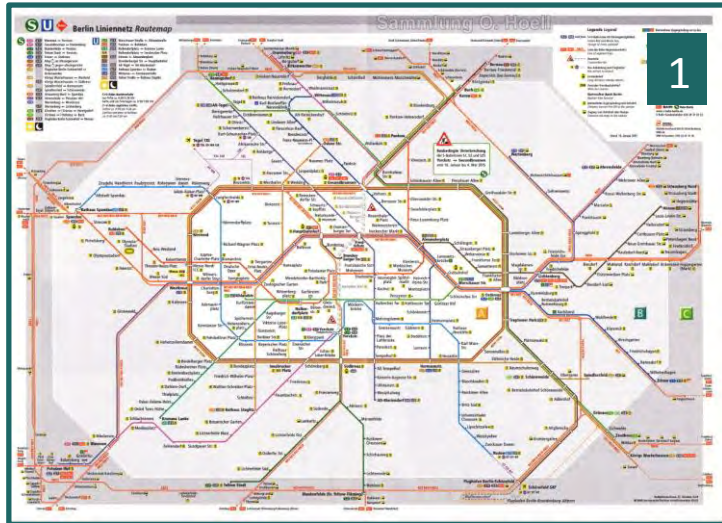


<http://www.masoncontractors.org/2011/11/18/identify-your-targets/> - November 2015

- ⇒ Inform
- ⇒ Educate
- ⇒ Train

- ⇒ Motivate
- ⇒ Sell
- ⇒ Entertain

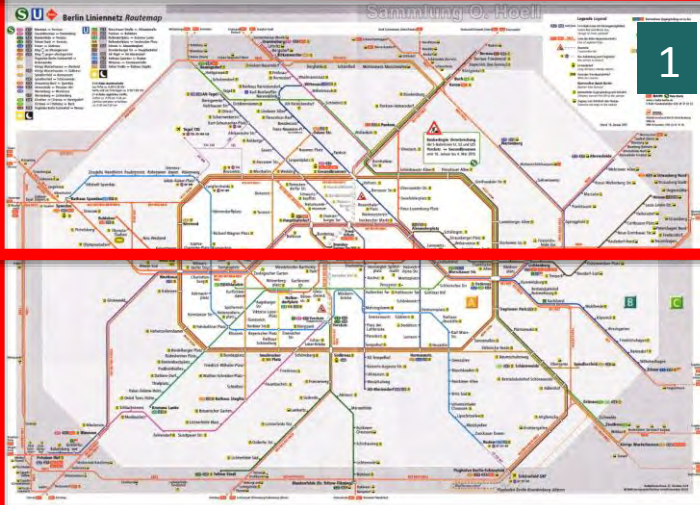
Boxing



References:

1. http://s-bahn-galerie.de/S_Bahn_Berlin/xPlan_Bln/2015-01-16-S-Bahn-Berlin.htm
2. http://www.haltstellenansage.de/ansagen/u/berlin/u9_en.htm
3. https://commons.wikimedia.org/wiki/File:Berlin_U9.svg

Aligning



1



2

References:

1. http://s-bahn-galerie.de/S_Bahn_Berlin/xPlan_Bln/2015-01-16-S-Bahn-Berlin.htm
2. http://www.haltestellenansage.de/ansagen/u/berlin/u9_en.htm
3. https://commons.wikimedia.org/wiki/File:Berlin_U9.svg



3

Proofread your slides

THE PAOMNNEHAL PWEOR OF THE HMUAN MNID. Aoccdnig to a rscheearch at Cmabrigde Uinervtisy, it deosn't mttær in waht oredr the ltteers in a wrod are, the olny iprmoatnt tihng is taht the frist and lsat ltteer be in the rghit pclae. The rset can be a taotl mse and you can sitll raed it wouthit porbelm. Tihs is bcuseae the huamn mnid deos not raed ervey lteter by istlef, but the wrod as a wlohe.

<http://thefindingfelicityproject.com/2015/01/10/sins-and-secrets/comment-page-1/>

- ⇒ Search for mistakes
- ⇒ Correct them
- ⇒ Ask someone to proofread



When giving a presentation you need to:

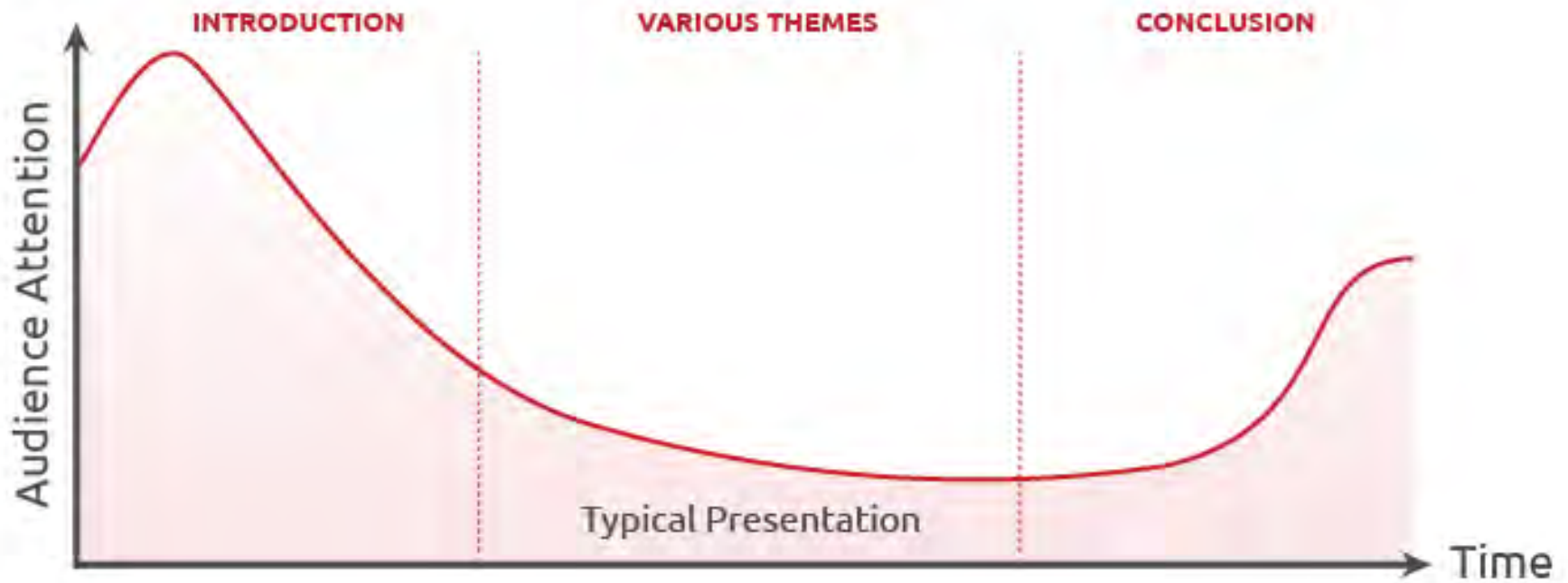
Get audience attention & interest

**in first
2
minutes**

maintain engagement so they

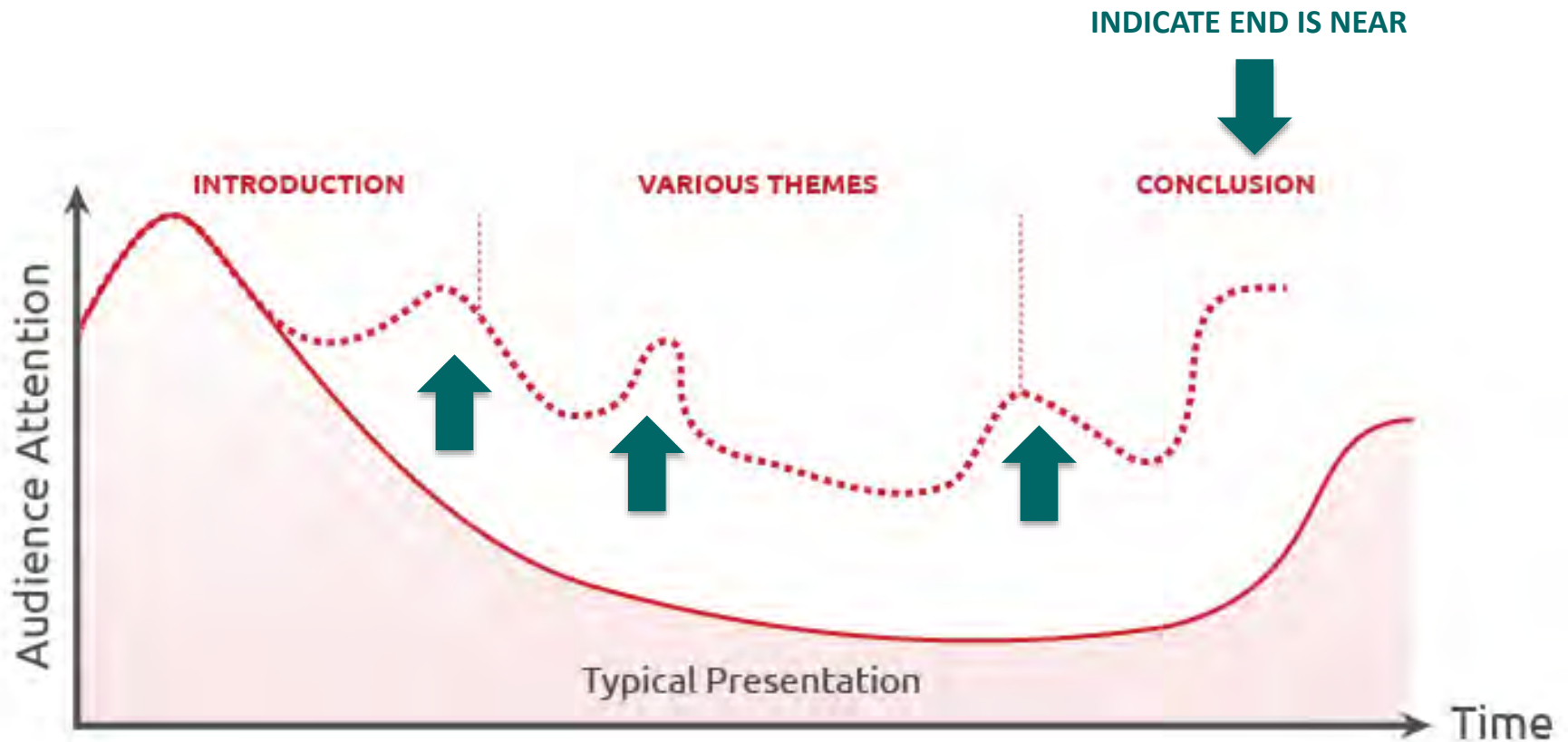
listen & understand

Modified after <http://www.free-management-ebooks.com/faqcm/preparing-01.htm>



<http://blog.iqpolls.com/en/posts/460-attention-span-your-chance-to-keep-your-audience-interested>

How to increase attention span?



Modified after: <http://blog.iqpolls.com/en/posts/460-attention-span-your-chance-to-keep-your-audience-interested>

How to engage your audience ?



© marketoonist.com

⇒ Use

- Signposts
- Transitions
- Intermediate conclusions

⇒ Last point can anticipate next slide

⇒ Give examples

⇒ Repeat important things



<http://www.missionalnetworking.org/2013/04/22/questions-are-better-than-answers/who-what-when-signs/>



<http://www.vertriebslexikon.de>, 02.2010

⇒ Be enthusiastic

⇒ Address emotions

- Empathy: Perhaps you made the same experience?
- Pride: I know that you made these excellent experiments!
- Curiosity: How can we solve this problem?

⇒ Use rhetorical questions

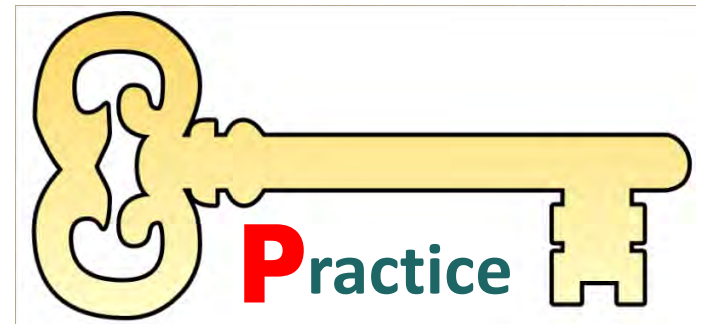


© Trueffelpix – Fotolia.com

- ⇒ What conclusion can we draw from this? First...
- ⇒ Why do I stress that? Because ...
- ⇒ Remember what I said at the beginning? Motivation...

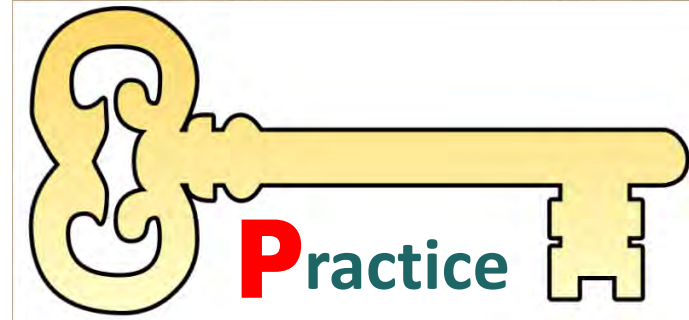
Practice: key to good performance

- ⇒ Memorize opening and ending
- ⇒ Rehearse (alone, colleagues, friends)
- ⇒ Only present scientific content you understand
Eliminate slides you can not explain properly
- ⇒ Concentrate on body language, rhetoric, voice
- ⇒ Check time



The more uncertain you are, the more nervous you will be!

- ⇒ Get enough sleep
- ⇒ Practice your talk
- ⇒ Practice standing on both feed
- ⇒ Practice deep breathing
- ⇒ Anticipate problems



What can go wrong?

- ⇒ Losing your train of thought
- ⇒ Uncertainty about material
- ⇒ Presentation crashes
- ⇒ Interruptions
- ⇒ Running out of time



" DANG, I FORGOT MY NOTES! "

© CartoonStock Ltd. 2015



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- ⇒ Know the venue
- ⇒ Be familiar with equipment
 - Microphone!!!
 - Remote control
 - ~~Laser pointer~~
- ⇒ Arrive early
 - Introduce to chair
 - Hand over presentation
 - Check presentation is running



http://speakup.to/wp-content/uploads/2013/12/leerer_vorlesungssaal_fotolia_468_268.jpg

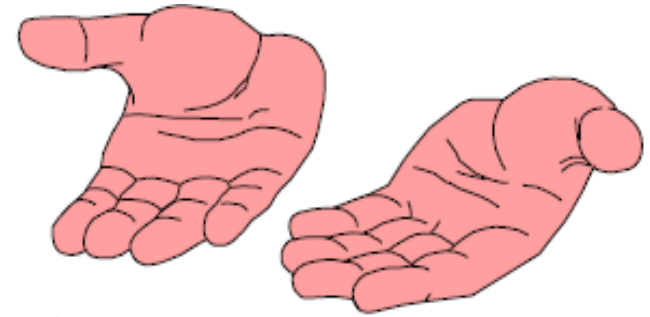
- ⇒ Get enough sleep
- ⇒ Get ready to perform
 - Breathe deeply already before talk
 - Visualize yourself giving a relaxed talk
 - Drink some water
- ⇒ Stride up to the podium
- ⇒ Check time
- ⇒ Welcome audience with a thank you



<http://mindfulhappiness.org/2015/concentration-mindfulness/>

⇒ Gesture

- Emphasize a point
- Support words (e.g. first, second)
- Express emotions (e.g. excitement)



© Storz, 2002

⇒ Stance

- Stand on both feet
- Stand tall, keep your chest lifted
- Face audience

⇒ Facial expression

- Smile when entering the stage
- Have eye contact to persons
- Convey feelings (e.g. relaxed, glad, enthusiastic)

⇒ Volume

- Speak loud enough
- Raise or
- Lower for emphasizing

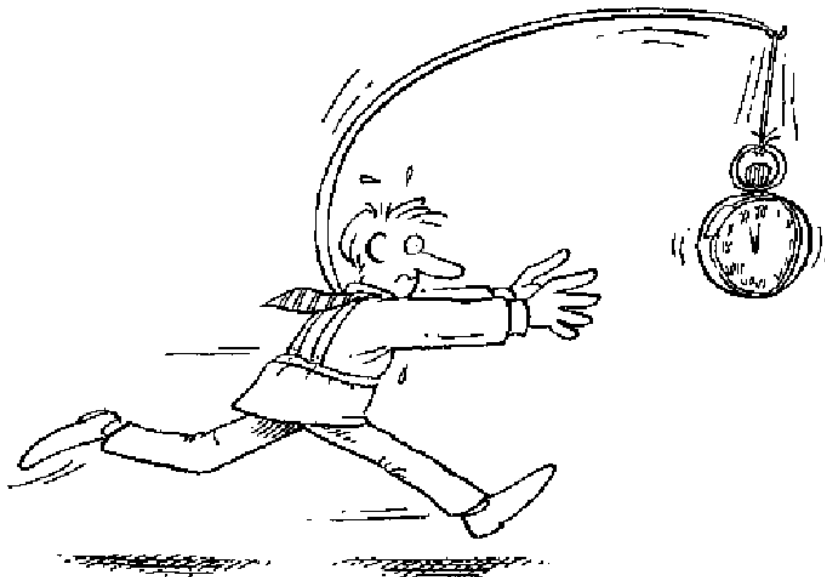
⇒ Speed

- Change delivery pace
- Slow down for important points
- Pauses punctuate speech

⇒ Articulation

- Articulate clearly
- Pronounce ends of sentences audible
- Get rid of „aah“, „mmh“, tongue twisters



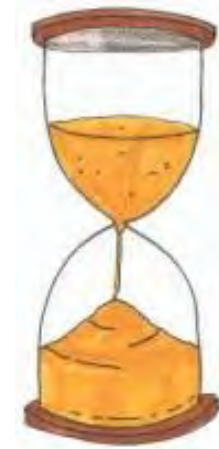


© Ralf Gläßner



<http://www.physikfuerkids.de/historie/zeit/zeit9.html>

Conclude on time
wherever
you are in your talk!!!



<http://www.physikfuerkids.de/historie/zeit/zeit9.html>

- ⇒ Keep talking slowly
- ⇒ Make your main points
- ⇒ Go to concluding slide

*PowerPoint type number of your concluding slide and press
“Enter”*

- ⇒ Indicate audience end
- ⇒ Finish your presentation strongly
 - Speak slowly and with emphasize
 - Tell audience what to “Take away”
 - Thank audience
- ⇒ Make a pause for applause
- ⇒ Answer questions
- ⇒ Leave the podium at normal pace



<http://theruniverse.com/wp-content/uploads/2012/05/Snail-at-Finish.jpg>

⇒ Anticipate typical questions

⇒ Prepare back up slides

⇒ Encourage questions during talk

- “I don’t want to go in more detail here, but xyz is a very interesting point to discuss later.”
- “That is my interpretation, but perhaps you see it differently?”
- You can ask a question yourself at the end – perhaps there is a specialist in audience

⇒ Repeat main point of question

⇒ Irrelevant questions

- “I think your questions relates most to subject xyz”



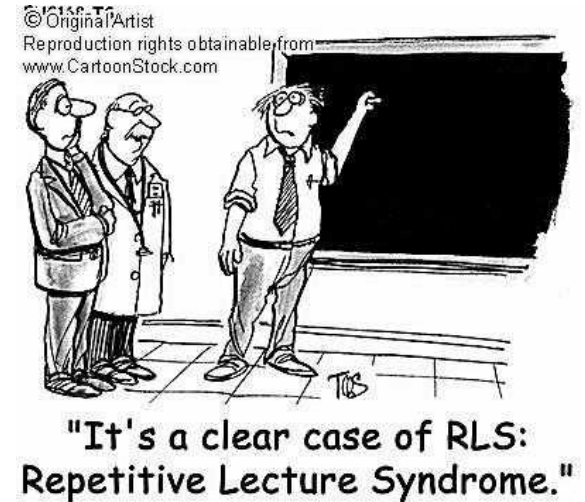
⇒ Keep answers short, polite, to point

⇒ Not knowing answer:

- „Interesting point, I will look into that.“
- „Sorry I am not sure about that.“
- “That’s a good point, let’s discuss it afterwards.”

⇒ Disagreeing with questioner:

- Stay friendly and diffuse situation
- „Let’s talk about this later“
- "We clearly don't agree on this point, but thanks for bringing this up to us.



That makes an excellent presentation

- ⇒ Motivated speaker
- ⇒ Telling a good story
- ⇒ Staying in time



"First webinar?"

© cartoonstock



<http://www.sabor.co.at/asterix/>

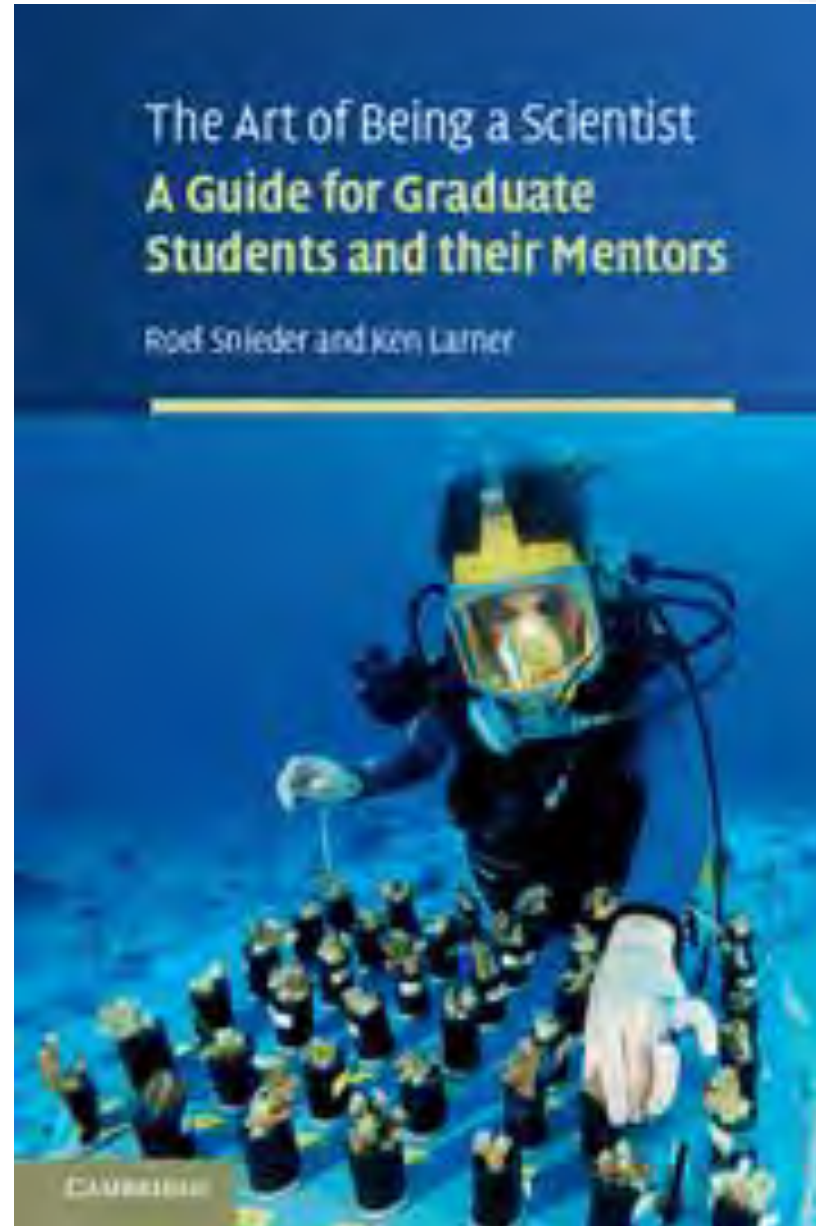


<http://www.physikfuerkids.de/historie/zeit/zeit9.html>



Roel Snieder

Department of Geophysics,
Colorado School of Mines



Websites

- **Tips for making effective presentations by Michael A. Payne & Ken Larner**
<http://library.seg.org/doi/pdf/10.1190/tle27030423.1>
- **How to improve the presentation skills of PhD students by Susanne Ulm**
<http://www.nextscientist.com/improve-presentation-skills-of-phd-students/>
- **How to give a dynamic scientific presentation by Marilyn Larkin**
<https://www.elsevier.com/connect/how-to-give-a-dynamic-scientific-presentation>
- **Ten secrets to giving a good scientific talk:**
http://www.cgd.ucar.edu/cms/agu/scientific_talk.html
- **How to engage your audience and keep them with you**
<http://www.hamilton.edu/oralcommunication/how-to-engage-your-audience-and-keep-them-with-you>
- **How to start a presentation tips and tricks – 22 Powerful strategies by Justion Hoxton**
<http://www.customshow.com/start-presentation-tips-tricks/>
- **Giving a Presentation? Lose the Laser Pointer**
<http://www.protocolostomy.com/2006/11/29/giving-a-presentation-lose-the-laser-pointer/>

Presentations about for improving scientific talk skills

- **How to give a good research talk by Simon Peyton Jones:**
<http://research.microsoft.com/pubs/67052/giving-a-talk-slides.pdf>
- **Scientific conference presentations by Hilary M Jones:**
<https://www.york.ac.uk/media/biology/documents/careers/Scientific%20Conference%20Presentations.pdf>
- **How to give effective scientific presentations by Tiffani L. Williams**
<http://theory.bio.uu.nl/MERIT/pdf/cst1williams.pdf>

Voice , body language, nerves

- **Presentation skills: Body Language**
<http://theory.bio.uu.nl/MERIT/pdf/cst1articlebodylanguage3.pdf>
- **Quick tips for using your voice effectively**
<http://www.speaking-tips.com/Articles/Quick-Tips-For-Using-Your-Voice-Effectively.aspx>
- **Managing presentation nerves:**
<https://www.mindtools.com/pages/article/PresentationNerves.htm>

Phrases and vocabulary

- **English for presentations: Useful phrases and vocabulary by Cornelson Corporate Solutions** <http://kella.edu.vn/sites/default/files/filedownload/useful-phrases-presentations.pdf>
- **A short guide to the oral presentation in English by Martha Grand Ensieg** http://step.inpg.fr/GB/docs/Language_of_presentation_v7.pdf
- **25 Transitional phrases that will make your next speech like butter by Shane Purnell** <http://www.shanepurnell.com/2010/10/05/25-transitional-phrases-that-will-make-your-next-speech-like-butter/>

Thank you!



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