

Presentation Workshop



Differences: Papers / Talks

While papers can be read in any order and at the reader's own pace, presentations impose the sequence and rhythm of content on their audience.

They are therefore harder to follow and should be much more selective in what they contain.

The idea is not to say everything that is already written in the proceedings paper or dissertation.

Written documents are for convincing with detailed evidence; oral presentations are for convincing with delivery, both verbal and nonverbal.

Art of Making Presentations

Like scientific papers, oral presentations share your research 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* and the *outcomes* of the work, and must present enough evidence to establish the validity of this outcome.

Presentations normally include an opportunity for interaction in the form of questions and answers.

Art of Making Presentations

Instead of presenting everything that was done in the order in which it was done, a presentation should focus on getting a main message across.

Clearly state the main message and provide the supporting evidence.

Identifying the main message early in the preparation process is the key to being selective in your presentation.

For example, when reporting on the methods, include only those details relevant to supporting and strengthening the main message.

Structuring the Presentation

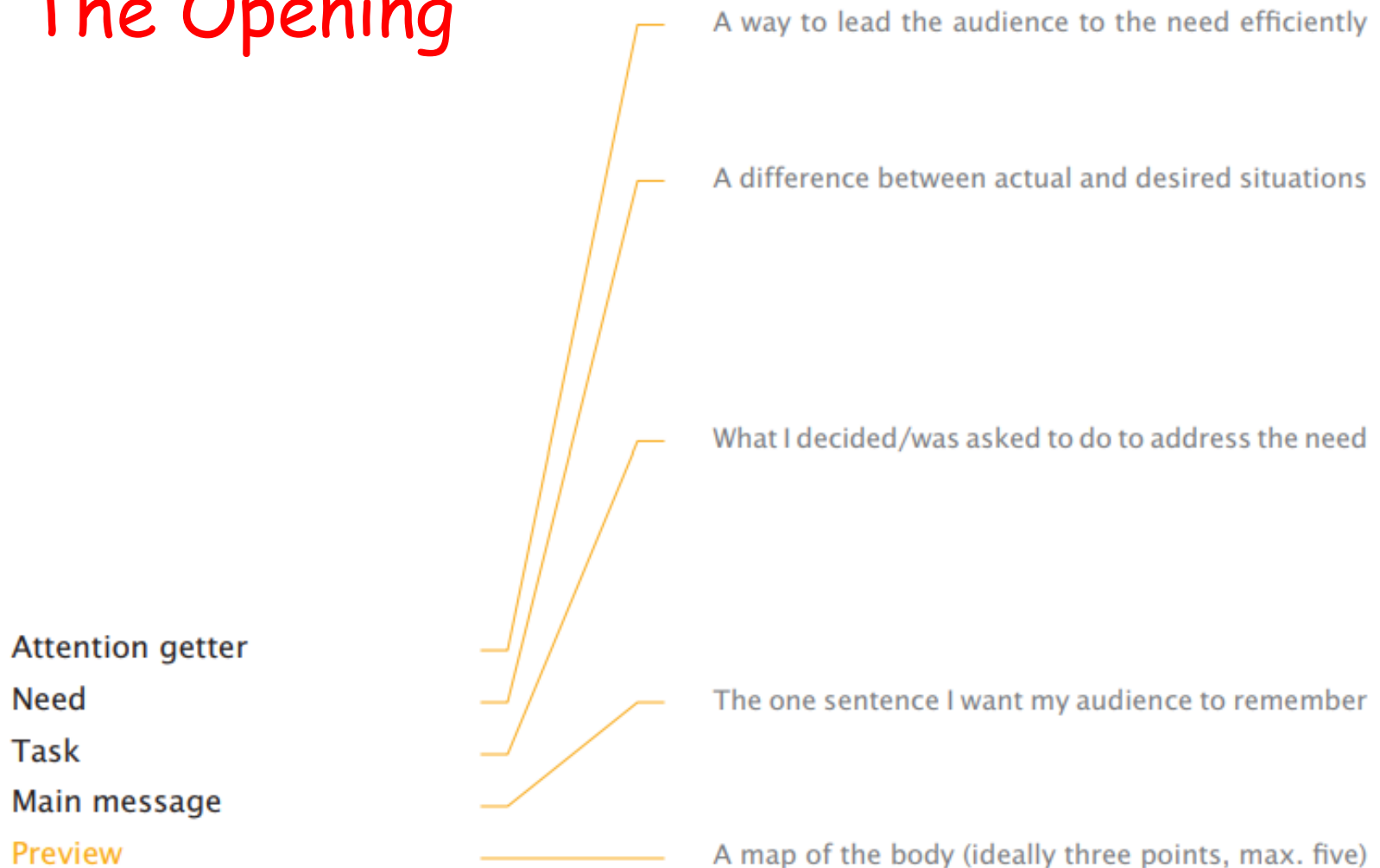
The Opening: Include 5 items in your opening:
attention getter, need, task, main message, preview

main message = This is the one sentence you want your audience to remember, if they could only remember only. It is your main conclusion, perhaps stated in slightly less technical detail than at the end of your presentation.

preview = Outlines the body of the presentation. Where you tell the audience what you are going to tell them. Its like a Roadmap or a Plan.

Structuring the Presentation

The Opening



Structuring the Presentation

- **The Body:** To make the body of your talk easy to remember, for both you and your audience, think of it as a tree (or hierarchy).

Identify up to 5 statements to support your main message: These are your main points.

Next, think of 2 to 5 statements to support each main point: These are your subpoints.

These main points and subpoints represent about as much detail as your audience can absorb in a single oral presentation.

Structuring the Presentation

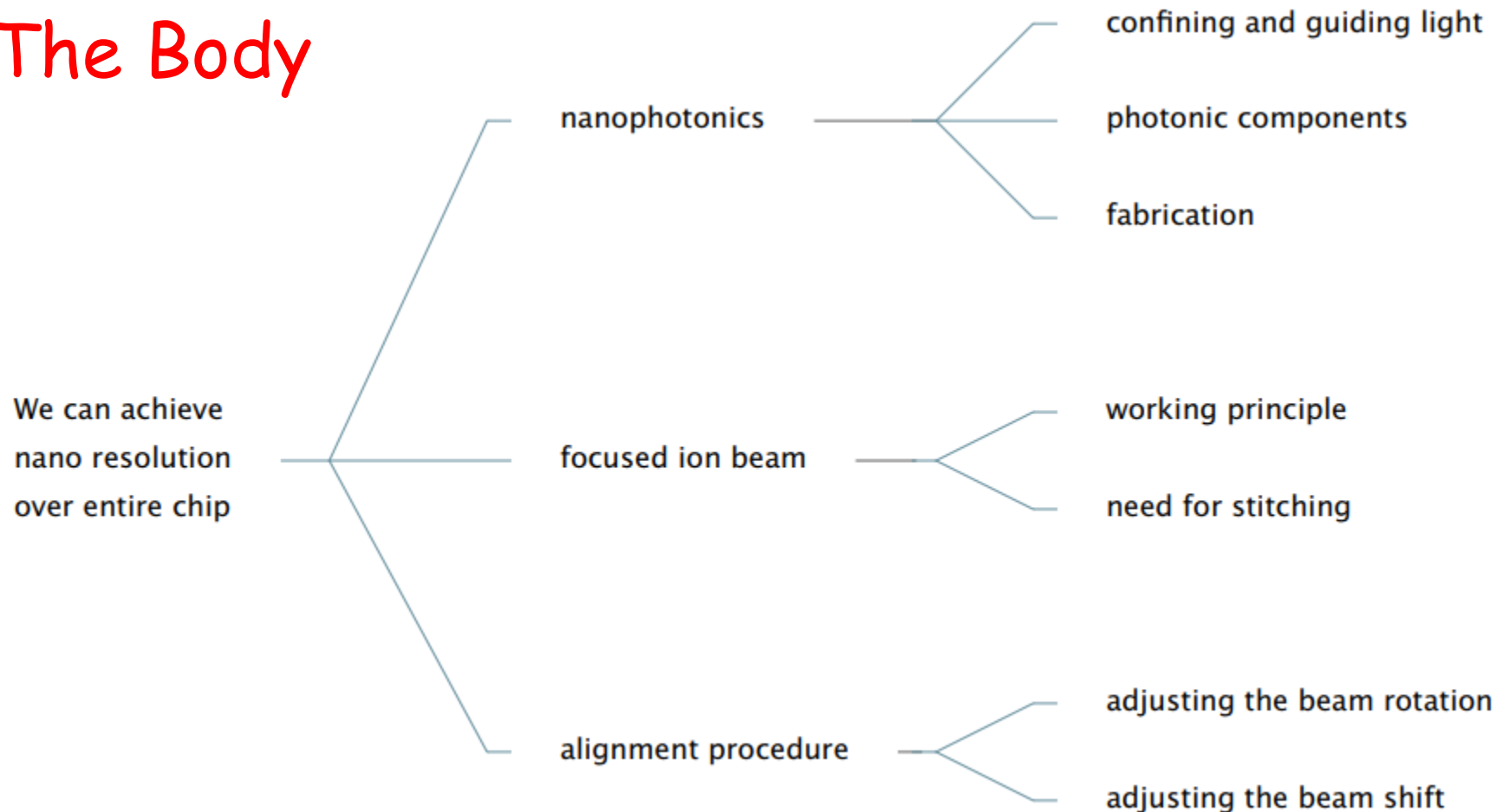
Even if you envision your presentation's body as a tree, you will still deliver the body as a sequence in time. One of your main points will come first, one will come second, and so on.

Organize your main points and subpoints into a logical sequence, and reveal this sequence and its logic to your audience with transitions between points and between subpoints.

Place your strongest arguments first and last, and place any weaker arguments in between.

Structuring the Presentation

The Body



Structuring the Presentation

- **The Closing:** After supporting your main message in the body, wrap up your oral presentation in 3 steps: a *review*, a *conclusion*, and a *close*.
- First, review the main points in your body to help the audience remember them and to prepare the audience for your conclusion.
- Next, conclude by restating your main message (in more detail now that the audience has heard the body) and complementing it with any other interpretations of your findings.
- Finally, close the presentation by indicating to your audience that these are your last words.

Structuring the Presentation

Review

Recaps the body's
three main points

- 1 I've told you something about nanophotonics: the light is guided in the material with the highest refractive index.
- 2 And we can make nanophotonic structures with a focused ion beam, because it has a very high resolution.
- 3 Now, thanks to our alignment procedure, we can make these structures as large as we want, by stitching more parts together.

Conclusion

As a wrap-up, illustrates
the achievements visually

So now let me show you some waveguides that we made by focused ion beam stitching. Here you see an example of a waveguide that was stitched together with parts 80 μm long, and in this cross-section you can see that the light will be guided down the middle. Around the markers you see that there is a slightly darker area: this is where the image was taken and damage was induced to our material; that's what we want to avoid in the places where we have light. Here you see that the structures are really unlimited in size, except of course by the size of the sample itself.

Structuring the Presentation

Close Links to the attention getter (concept of <i>nanophotonics</i>)	So I have shown you we can do <i>nanophotonics</i> with a focused ion beam thanks to its high resolution. And thanks to our alignment procedure, we can do it <i>as large as we want</i> .
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- **The Questions:** Anticipate the questions:

Think of what your audience might want to know. For example, details you left out to keep your presentation under the time limit.

If you think slides would help you answer some of the anticipated questions, consider creating them.

Making the Slides

Make sure each slide gets a message across.

State that message verbally in the title as a short sentence (10-15 words on 1 - 2 lines).

Illustrate the message visually in the rest of the slide. Be concise, both verbally and visually:

Question the relevance of anything you plan to include on your slide, especially decoration (backgrounds, colors, lines, images, animations).

Bad Slides

Provide a title, in large font, that summarizes the slide's main message

Provide a title for each graphical object

Do not use complete sentences. Use bullets

Use color for effective visual impact, but resist the temptation to over-colorize the slide

EXAMPLE OF A "BAD" POWERPOINT SLIDE

In all but impromptu talks, poorly designed, haphazardly rendered, and badly edited visual aids suggest a lack of professionalism, preparation, and commitment to the audience. Poor visuals are rude and degrade communication.



- The title is too small
- Green background is distracting and decreases readability

QSCAT vs. ECMWF Cur

What is QuikSCAT?

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- Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.
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What is ECMWF Cur?

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- Duis autem vel eum irure dolor in hendrerit in vulpate velit esse molestiae consequat.



- There is too much text
- The text does not explain the graphics
- Too many points are being made with this one slide



- Graphics are too small
- Axes and other features should be labeled
- The origin of data and graphics should be acknowledged

Good Slides

Use of color in visual aids improves retention of information

Color can be used to highlighting headings and key points, and color-coding graphs

Providing large axes tick marks and unit labels enhances figures / maps

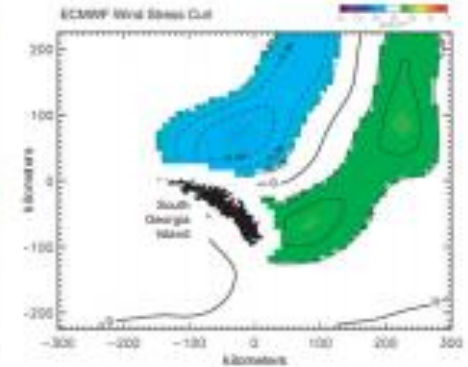
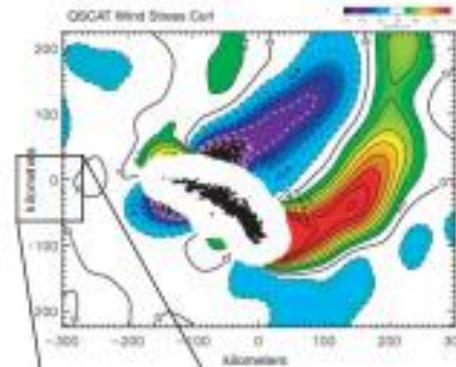
Highlighting sources / references also critical

EXAMPLE OF A "GOOD" POWERPOINT SLIDE
Because they automatically assume center stage, it is vitally important that all visual aids clarify and support your talk in an attractive, comprehensible manner or they will detract from it and compete with it.

EC

• The slide title is 44 pt sans serif font, which makes it very legible

QSCAT vs. ECMWF Curl



kilometer

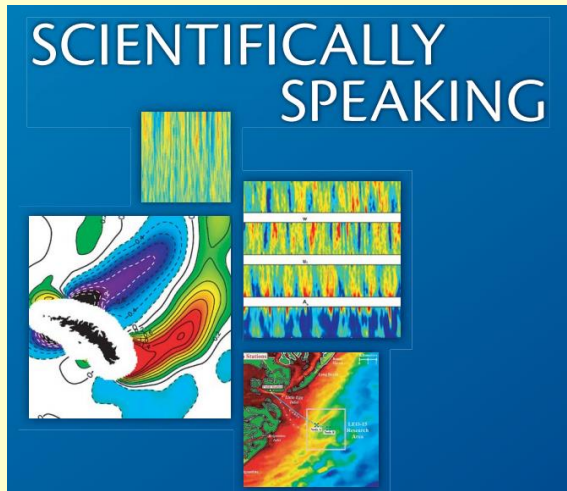
• Only two graphics are used
• Axes are labeled and readable

(courtesy M. Freilich, OSU)

(cour

• Person who provided the data is acknowledged

Other Posted Materials



COMMENTARY

Tell me a story! A plea for more compelling conference presentations

Kathryn M. Langin

OPEN ACCESS Freely available online

PLOS COMPUTATIONAL BIOLOGY

Editorial

Ten Simple Rules for Making Good Oral Presentations

Philip E. Bourne

References and Resources

Doumont, J., ed. *English Communication for Scientists*. Cambridge, MA: NPG Education, 2010.

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<https://www.nature.com/scitable/ebooks/english-communication-for-scientists-14053993>

Scientifically Speaking available by writing to info@tos.org or by visiting the TOS website at:



http://www.tos.org/resources/publications/sci_speaking.html.