17th Russbach School on Nuclear Astrophysics

Closing Remarks, March 18, 2022

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Improving your presentation skills

Recommendations for scientific talks

based on recommendations by H. Schatz

Assume the audience knows nothing about the topic

Typically, aiming the talk at a group with less knowledge gets it right (if you speak to experts in the field, address the talk to non-experts, if you speak to faculty, aim at graduate students, ...). Even if you speak about a topic at a place that is famous for work on this topic, it is usually only a handful or less people that actually have worked on the topic. Generally, people like it if they hear something they know, but they hate it if they don't understand.

Keep it interesting and CUTTING EDGE all the time

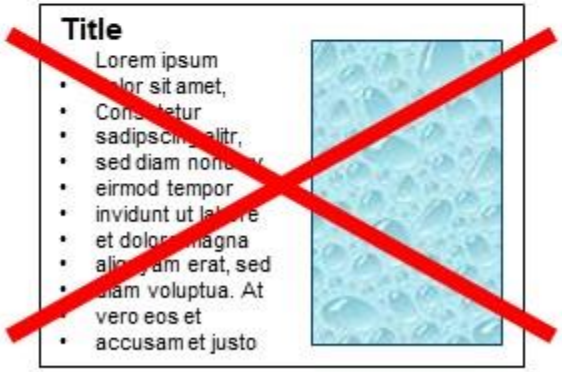
No general, textbook, lecture, introductory stuff. No history (except to lighten things up deliberately). Of course, the basics need to be explained. The art is to do this in simple words as needed along with forefront science. As a rule of thumb, each slide should have some forefront science, even if it also explains some basics.

Convey excitement

Be excited. Say it explicitly if something is interesting or exciting, otherwise the audience will not know.

No Bullets

At least that is the ideal talk. Find a way to visualize all points you want to make with a graphics, picture, etc. Why? Bullets can be read by the audience in a 1/10th of time the speaker needs to read them. So if you read the bullets its really boring, if you don't read them they are useless anyways. In essence, bullets are not suitable for a visual presentation - you could as well hand out your bulleted list for reading. No need to give a talk about it. There are a few possible **exceptions** such as **summarizing** the main message of the slide **along with graphics**, the **conclusion** at the end of the talk etc. But most slides should be bullet free! In particular **do not use the format where bullets are on the one half of the slide and a picture is on the other half**. Rather **make the picture big and relate text labels to features in the picture directly**. If this is not possible you probably did not pick the right picture to make your point.



No definitions, introductory explanations etc. at the beginning

Explain everything at the time it is needed. Better repeat explanations of unfamiliar symbols, definitions. Do not assume just because you said something, from now on everybody knows it.

Plan the right timing for each slide

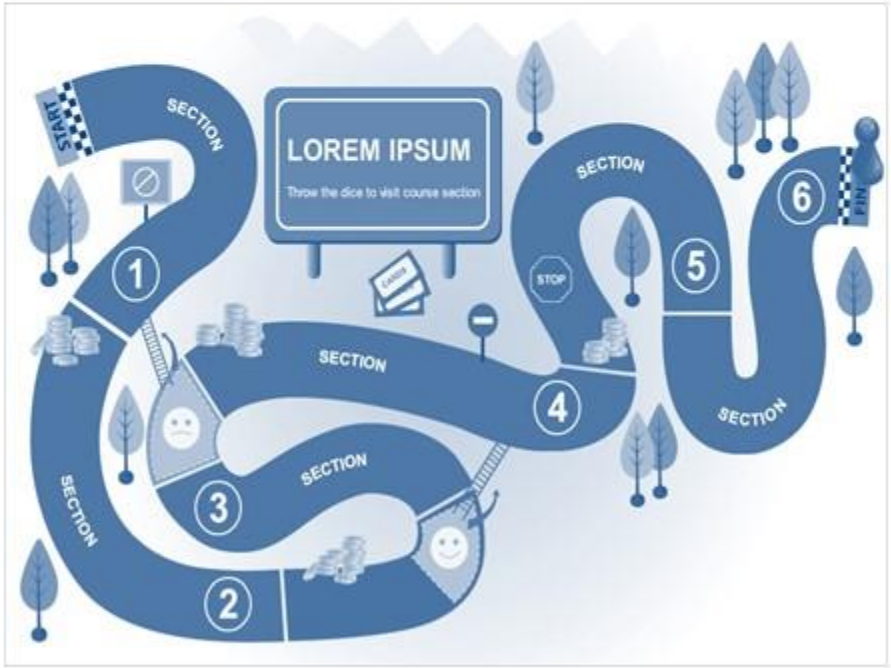
Less than 60 seconds per slide will confuse the audience. More than 2 minutes per slide will reduce attention. A good average is 90 seconds per slide. Meaning, a 30 minutes talk should contain about 20 slides. You can lengthen the timing of a slide with animations but keep it simple and use effects with caution.

Keep the time

… under all circumstances. Do not switch topics in the last 1/3 of the talk.

Create a storyline

… from beginning to end. Do not just add thing after thing, each transition to the next slide should be motivated by a storyline.

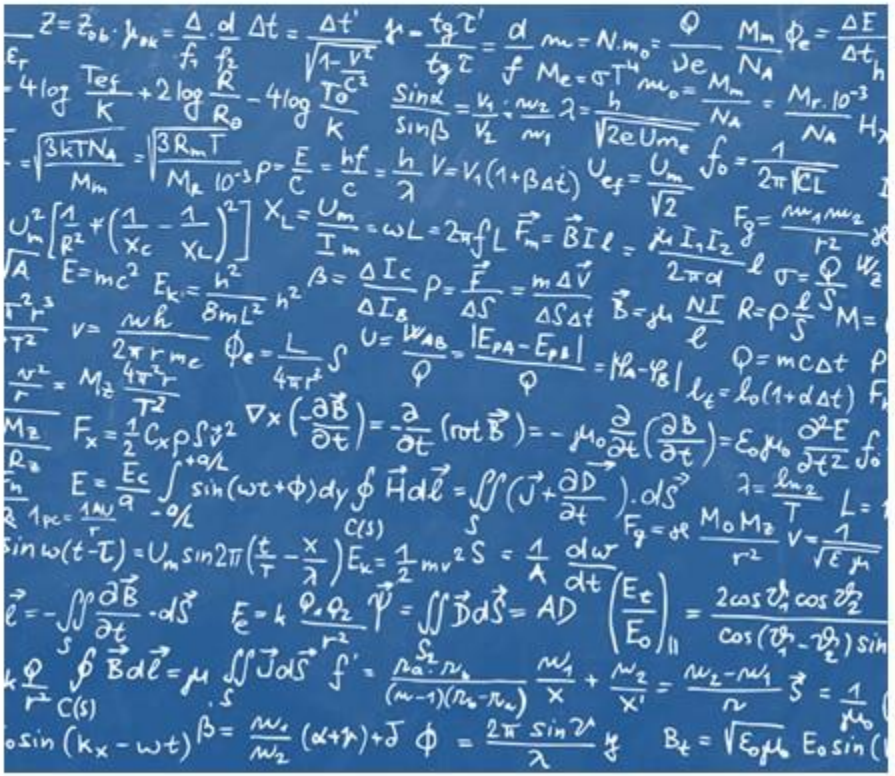


Each transparency should have a clear message

… and a clear purpose within the story. Sometimes its good to explicitly add the punch line in words to each slide, especially if slides get posted or distributed.

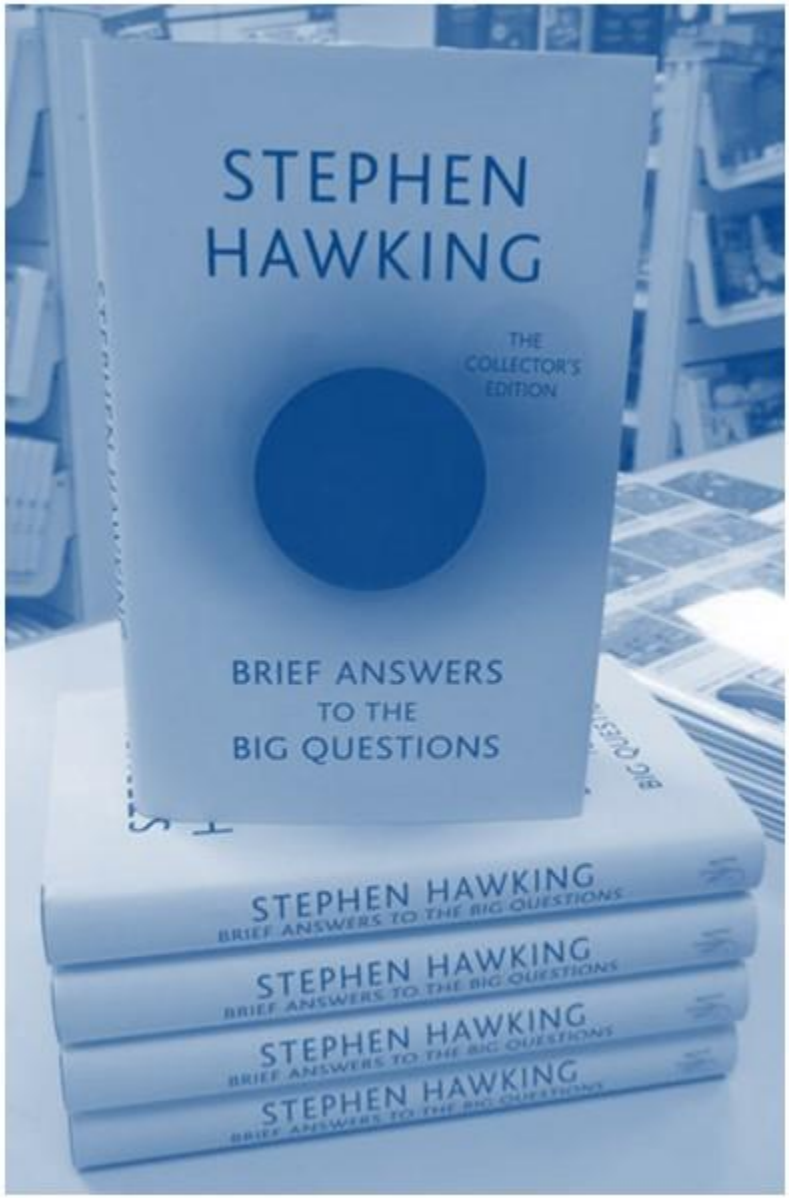
Use equations only if absolutely necessary

Do not show them to demonstrate "how you did something" but only if they serve a pedagogical purpose (for example, to show that a quantity depends exponentially on another one, or to show the ingredients needed to calculate something). In theory talks, higher level explanations than the detailed equations are needed - ideally through some visualization. Showing lots of results, also from intermediate steps is also a good strategy (the same is of course true for experimental talks: don't show electronic diagrams or data acquisition code but higher level concepts). If equations and derivations are essential use the blackboard. This will get the timing right.



Answer questions briefly

One or two sentences are preferred. Do not go back to the slides unless absolutely necessary.



Improving your presentation skills

The delivery is just as important as the message

The presenter

Your Name
Stand and introduce yourself

Your voice
Volume, tone, inflection

Your clothing
Chose what you feel comfortable in

Your posture and movement
Want focus on slides, not you

The slides

Don't forget acknowledgments

Don't put anything on a slide you can't explain, especially a plot from an old paper

Make sure axis labels are visible from back of room

Avoid talking about one thing while showing another

Never write "Thank you for your attention" on a slide, say it when you are done, but do not write it

Summary on the last slide serves as a starting point for questions

Preparation

Practice!
at least once (out-loud and timed) the entire way through, but don't over-practice

Bring with you to room
- PDF of talk on a flash drive
- laptop
- dongle, charger
- presenter

Arrive early
introduce yourself to session chair, pre-load talk if needed, and sit at edge of row

Presenting

Talk slowly
have water nearby

Shaking hands?
circle don't point

Your appearance and posture set the tone
take up space, power pose and don't pace or sway

Gain the benefit of the doubt by portraying confidence
don't hedge (may not be interesting…) and don't qualify (kind of, sort of…)

Look at audience
find one friendly face, or two or different sides of room

Summary

For a good oral presentation, check your slides against the recommendations in this talk

Practice to grow in confidence, talk slowly, look at the audience, avoid death, and have fun

You all did an excellent job at this school!

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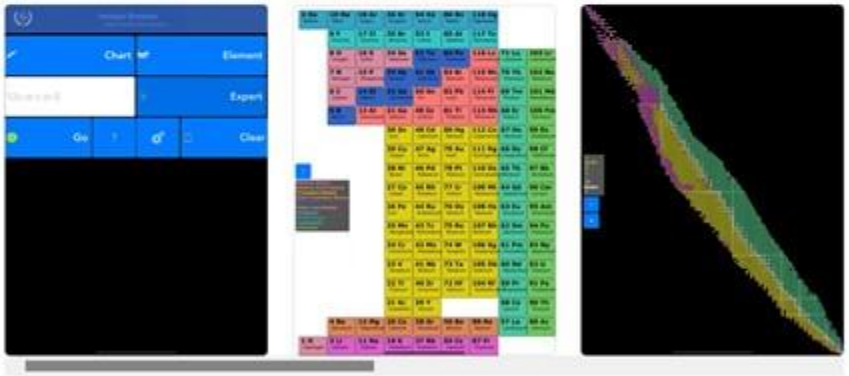
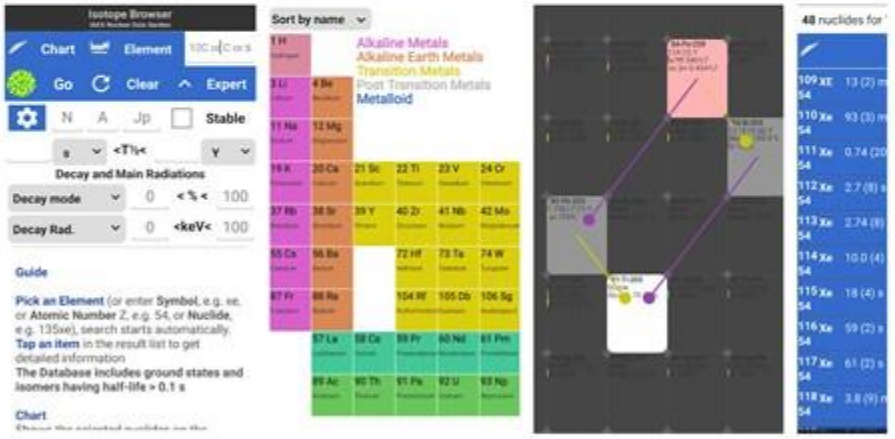
Screenshots iPad iPhone





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