

NISS Panel: How to Present Your Research

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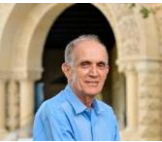
Updated and modified from a joint presentation with
Jessica Utts at ISI WSC 2017

Outline

- Review Efron's 13 rules for giving a bad talk (tip of the hat to Jessica)
- Getting ready to give a good talk (blame me and ASA)
 1. Content Organization
 2. Preparing effective displays
 3. Timing your talk
 4. Presentation Details
 5. When finished

Brad Efron's 13 Rules for Giving a Really Bad Talk

1. Don't plan too carefully, "improv" is the name of the game with technical talks.
2. Begin by thanking an enormous number of people, including blurry little pictures if possible. It comes across as humility. [Thanks, Brad!]
3. Waste a lot of time at first on some small point, like the correct spelling of "Chebychev." Who ever heard of running out of time? (See Rule 13.)
4. An elaborate outline of the talk to come, phrased in terms the audience hasn't heard yet, really sets the stage, and saves saying "I'm going to present the beginning, the middle, and the end."



13 Rules, continued...

5. Don't give away your simple motivating example early on. That's like stepping on your own punchline.
6. A good way to start is with the most general, abstract statement possible.
7. The best notation is the most complete notation – don't skimp on those subscripts!
8. Blank space on the screen is wasted space. There should be an icon for everything – if you say the word “apple,” an apple should tumble in from the right, etc. And don't forget to read every word on the screen out loud.
9. Humans are incredibly good at reading tables, so the more rows and columns the better. Statements like “you probably can't make out these numbers but they are pretty much what I said” are audience confidence builders.

13 Rules, continued...

10. Don't speak too clearly. It isn't necessary for those in the front row.
11. Go back and forth rapidly between your slides. That's what God made computers for.
12. Try to get across everything you learned in the past year in the few minutes allotted. These are college grads, right?
13. Oh my, you are running out of time. Don't skip anything, show every slide even if it's just for a millisecond. Saying "This is really interesting stuff, I wish I had time for it" will make people grateful for getting "Chebychev" right.

Source: Chapter 52 in *Past, Present and Future of Statistical Science*

<https://www.crcpress.com/Past-Present-and-Future-of-Statistical-Science/Lin-Genest-Banks-Molenberghs-Scott-Wang/p/book/9781482204964>

A Few of Jessica's Additions (for giving a bad talk)

- Use lots of acronyms and abbreviations.
 - If you really feel like you have lots of time, you can define them (quickly!) the first time you use them, but then don't ever say the full words again. It wastes too much time.
- Don't ever practice your talk.
 - If you do, you'll be bored by the time you actually give it and that will show.
- If you do feel like you have to practice, don't time yourself.
 - When you give the talk you'll probably talk faster anyway, and then you will run out of material before your time is up and will have to ad lib.
- Don't leave time for questions.
 - If you follow all of these rules correctly, no one will have any questions anyway!

Getting ready to give a good talk

Reference: ASA Presentation Tips

<https://ww2.amstat.org/meetings/jsm/2020/presentationtips.cfm>

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2. Preparing effective displays
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(my comments / commentary / emphasis added in RED)

1. Content Organization

- Make sure the audience walks away understanding the following five most important things a listener cares about:
 - What is the problem and why?
 - What has been done about it?
 - What is the presenter doing (or has done) about it?
 - What additional value does the presenter's approach provide?
 - Where do we go from here?
- **Respect your audience – what would you want if you were in the audience?**
- **Provide an outline of your talk**
- **Tell the audience what to expect, tell them, recap**

1. Content - timing

- Carefully budget your time, especially for short (e.g., 15-minute) presentations.
- Allow time to describe the problem clearly enough for the audience to appreciate the value of your contribution.
- Leave enough time to present your own contribution clearly. This almost never will require all of the allotted time.
- **Six months of technical work can't be summarized in 15 minutes of dense slides and rapid speech**
 - Engage the audience with what motivating the work (why should they care), what you did and where they can learn more after the talk

1. Content – context and audience

- Put your material in a **context** that the audience can relate to.
- Know your audience: suggestion - aim your presentation to an audience of colleagues who are not familiar with your research area.
- Your objective is to communicate an **appreciation** of the importance of your work, not just to lay the results out.
- Give **references** and a way to **contact** you so those interested in the theoretical details can follow up.

2. Preparing effective displays

- Keep it simple.
(check color for emphasis – contrast) For example, Can you read this?
- Font: 24-point font so everyone in the room can read your material.
Arial often recommended and *italics* often not suggested
(test by projecting and see if you can read slide from the back of a room)
- Try to limit the material to eight lines (+/-) per slide, and keep the number of words to a minimum. Summarize the main points.
- Limit the tables to four rows/columns for readability.
- Sacrifice content for legibility.
- Many large tables can be displayed more effectively as a graph.

2. Preparing effective displays – slide density, references, equations

- For projection: Light letters (yellow or white) on a dark background (e.g., dark blue) often will be easier to read. (Not if you have handouts)
- Use equations sparingly, if at all.
- Avoid derivations and concentrate on presenting what your results mean.
(They can get detailed information from you in your paper)
- Don't fill up the slide.
- Identify the journal when you give references.
- Always, always, always preview your presentation. You will look foolish if symbols and Greek letters that looked okay in a Word document didn't translate into anything readable in PowerPoint
- Colors on computer screen may not look the same when projected.

3. Timing your talk

- Don't deliver a 35-minute talk in 15 minutes. Recommendations:
 - Present only as much material as can reasonably fit into the time allotted. Generally, that means 1 or fewer slides per minute.
 - May depend on density of material
 - People differ in style and pacing (I tend to have more slides with fewer lines/slide)
 - Pace: Speak slowly, clearly, and loudly, especially if your English is heavily accented and when you have an international audience.
 - Practice, practice, practice.
 - Give your talk to an empty room – identify the rough parts / transitions
 - Ask a colleague to judge your presentation, delivery, clarity of language, and use of time.
 - Give a seminar / colloquium at your home institution and get feedback
 - Budget your time to take a minute or two less than your maximum allotment.
 - You will often finish a talk faster at the meeting than when you practice

4. Presentation details

- Go early to the room (15 minutes at least) – early is on-time, on-time is late! Make sure you have multiple sources to access your talk (I expect bad things to happen when I'm giving a talk)
- Put on the microphone and be sure it works before you begin.
- Be sure everyone in the room can see your material.
- Don't block the screen and don't pace or fidget.
- Don't apologize for incomplete results. Researchers understand that all research continues. Just present the results and let the audience judge. It is okay to say, “work is ongoing.”

5. When finished

- Thank the audience for their attention.
 - Often a nice last slide – have your email listed on this slide, URL for home page, software repos if appropriate
- Open the floor to questions.
- Gather your materials and move off quickly to allow the next presenter to prepare.
- Stay for the entire session
- Be available for people to ask you additional questions after the session ends.
- Include other social media you might use professionally (e.g. Twitter handle)

Thank you for your attention!

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