

**Protocols for delivering a seminar**  
(a compilation of what I've heard over the years)

*"Every talk is a job talk"*  
(Steven Altschuler)

Basically, Steve's point is that every talk you give is chance to explain your science: you are being evaluated and people remember. An audience member at an informal seminar may remember you one day in the future when looking for a candidate or colleague. Giving an impressive, exciting seminar could help get you a fellowship award, or R01, or job.

1. **It is not about you<sup>1</sup>, it is not a report.** It is about your audience and how they "feel" during and after your talk and what new knowledge they take away. Specifically, don't view this as a 'core dump' for what you've done. Instead, lay out the question and why the audience should care (exceptionally clearly), then show your most relevant data that gives the answer to this important question. In many ways the introduction and set up can be far more important than the data (the data is un-interpretable without context).
2. **Write down your opening 5–7 sentences and memorize them.** Know exactly how you will open and be enthusiastic about your opening. This will set the tone for the rest of your talk.
3. **"Tell them what you are going to tell them, tell it to them, then tell them what you told them"<sup>2</sup>.** Have an outline slide at the beginning before your data and a summary slide after your data at the end of your talk. These should match and be < 3 numbered bullet points. In the summary slide, use thumbnail figures of key data to remind them what you told them.
4. **Never have more slides than minutes you have to speak.** (If you have multiple slides showing a single animation, I count this as one slide). For example, for a 10-minute talk, keep it under 10 slides, excluding title slide, and no more than 3 data slides, 2 is better.
5. **Always introduce by contrast.** (i) When introducing a new hypothesis, compare and contrast with the existing hypothesis; (ii) when introducing a new/non-standard technique, it is essential you give the problems with the standard/obvious approach to demonstrate why the new one is required.
6. **Keep slides simple.** The fewer figures on a slide the better. Never > 4 items on a single slide (i.e., cartoons+charts ≤ 4). A single chart/figure (or text question) per slide is great.
7. **Use short titles & very little text.** Slide titles should be the take home message of the slide (i.e., avoid "Data"). Never exceed 20 words of written text total on a slide (under 15 is ideal).
8. **Practice, practice, practice.** Present the entire talk at least **10 times** before (I practice in front of my wife or another non-specialist).
9. **Speak slowly and enunciate** every word clearly. **Record yourself and listen.** It is quite painful, but worth it! There is no point shoe-horning in extra words or quick phrases if the audience can't hear or process these.
10. **If it looks too big, it is just the right size<sup>3</sup>.** Use 36–40 point **bold** font for titles of slides. Rest of text should be >16 point. Keep same font style throughout slides (Helvetica is best).

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<sup>1</sup> From Nancy Duarte's book "Resonate". She presents the case far better than I can, it is a very worthwhile read.

<sup>2</sup> This quote is from Frank Chisari, who said he "learned it from the Jesuits".

<sup>3</sup> From Jasper Rine. For those familiar with his style of humor, he may have been referring to something else entirely