

Techniques for Spoiling Your Own Scientific Talk

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This "manual" of techniques is addressed to the scientist who has done intrinsically interesting research and is about to present it orally to a scientific audience. Interesting research results, ably presented, can intrigue an audience and create a favorable opinion of the speaker. But there are techniques that you can utilize to thwart that outcome, as now discussed. Many of them have to do with slides (or transparencies) projected as the visual component of the presentation.

1. Spend a lot of time saying things unrelated to your research. For example, jokes, acknowledgments, and stories of little relevance can, when liberally used, consume a lot of your allotted time without revealing anything significant about your work. Don't allow yourself to be limited to a few graceful comments at the beginning, to important acknowledgments, or a truly relevant story.

2. Don't waste time on introducing your topic. Assume that the audience is up-to-date on it, knows its literature as well you do, and is well acquainted with any unusual experimental techniques you have employed. By omitting introductory material, you immediately baffle many members of your audience, and cripple their ability to understand the rest of your presentation.

3. Fill your slides with detail. Whatever kind of material you present visually, be it tabulated data, or organic chemists' structural formulas, or equations mathematical or chemical, let them fill the available space. This technique is especially effective if small print is used, to enable more material to be crammed on each slide. Some members of your audience will be able to read scarcely anything. Others will conscientiously try to read everything, but you can cut them off by calling for the next slide before they have completed reading the current one. Also, even if they have been able to get through everything on the slide, they will not have had time to contemplate its significance.

4. If possible, represent trends by tables of numbers, rather than graphically. Graphical presentation makes a relationship easy to grasp. In contrast, a table of numbers must be read and digested more or less in its entirety before a trend in the data becomes evident. Moreover, if you are nimble and skip quickly to the following slide, there will not have been time to digest that column of numbers.

5. If you do present material graphically, as in the case of an NMR spectrum, a GC trace, or a kinetic plot, **omit from the slide identification of the compound or system represented.** That helps to keep your audience in the dark. A variant of this technique is to provide identification, but by means of a code such as "4c". As a scientist of integrity, you would not use such a code identification without having presented it on an earlier slide. Nevertheless, the technique is generally successful because few will remember which of 20 structural formulas on a slide was 4c.

6. Organize your talk so as to involve many slides, say, 50 for a 40-minute talk. In order to get through the whole pack within 40 minutes, you must move quickly from one to the next, thereby frustrating members of your audience who try to understand everything you present. They won't have time to grasp the content and significance of one slide before you're on to the next one.

7. Noting that the rectangular open space on a slide is longer in one dimension than the other, arrange your material such that the long dimension runs from top to bottom. That often makes it impossible to project the whole content of the slide onto the screen at once, owing to physical limitations of screen size and room architecture. You must then ask the projector operator to show the top part of the slide, then the bottom part, and perhaps back to the top again. Such conversation with the operator serves to interrupt your scientific message. Also, projecting only part of a slide at any time interferes with the efforts of a viewer to grasp everything that's on it.

8. Create your slides with a few apparently random mistakes that require correction as you discuss them. Point out that the exponent in the denominator should be 3, not 2; that the group in the 3-position should be methoxy, not methyl as shown; that the yield obtained was actually 74%, not 54%; and so forth. The original errors interfere with comprehension of the slide material, and your remarks to correct them interrupt the train of scientific thought.

9. Present every detail of your experimental or theoretical results. Members of your audience will be impressed by how much you have done, but will also find it difficult to perceive what features are of special significance. Furthermore, by taking time for presentation of repetitious data, you can reduce or even avoid discussion of its broad import.

10. If your work involves theoretical principles not frequently discussed, assume that your audience is fully familiar with them and proceed directly with their application to your work. Especially if the equations you employ involve unusual symbols, which go unexplained, this technique will at once impress your audience with your profound command of sophisticated theory and perplex them as to what you are talking about.

In summary, to spoil your talk effectively, you can utilize a number of techniques. Which ones you can use depends on the nature of the work you have done. The general thrust of these techniques is to mystify your audience, to block its efforts to grasp what you have done, and above all to keep it from perceiving the Big Picture.

This short article may not provide sufficient guidance on how to spoil your talks. You will however have opportunities to observe practical application of the practices presented in these guidelines, at meetings you attend, at seminars in your department, and the like. Many scientists are adept at spoiling presentation of their own work.