

# How to Give a Good Talk

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Presentations by undergraduates at professional meetings have increased dramatically in recent years. And more and more undergraduates make presentations in classes, seminars and colloquiums. Learning how to give a good presentation is a valuable skill that many students will find useful in connection with their employment. Baseball manager Joe Torre once said that the teams that are most successful are the ones doing the little things well. Doing the little things well is the secret to giving good talks as well. Here is my advice on how to do the little things well when giving a talk.

### Preparation

- ❑ Inquire about the target audience.
- ❑ Determine the level of knowledge of the target audience.
- ❑ Choose a subject that will appeal to the intended audience.
- ❑ Don't overestimate what the audience knows about your subject.
- ❑ Don't try to do too much.
- ❑ Use simple examples and concrete special cases. A "nonexample" often helps to clarify a concept. (For instance, if you use the integers modulo 7 as an example of a finite field, be sure to point out that the integers modulo 6 is not a field and why.) Use intuitive definitions rather than technically correct ones. Avoid details. Mention applications.
- ❑ Choose a short and informative title. (Cute titles are usually poor titles.) "On a Theorem of Hilbert" is too vague. "On Hilbert's Basis Theorem" is short and informative. In your abstract, indicate the level of the talk. (Examples: "This talk is intended for a general audience"; "This talk is suitable for those who have had linear algebra"; "This talk is suitable for those who have had real analysis.")
- ❑ Keep technical terms and unfamiliar symbols to a minimum. When you do use them remind your audience of their meaning from time to time.
- ❑ When possible, relate your topic to other fields.
- ❑ Prepare a context for your talk. Explain how you got interested in the subject. Mention others who have worked on the subject of your talk.
- ❑ Use transparencies. A chalkboard talk comes across as slow moving. Make the transparencies up well in advance and number them.
- ❑ Use multicolors in preparing your transparencies. Blue, green, red and purple show up best. Avoid orange and brown. Use permanent ink (water soluble smudges easily). You can fix mistakes with rubbing alcohol.

- ❑ Write very large or use a large font (even for a talk in a small room). If you reproduce material, enlarge them for the transparencies. Use color photocopy machines to make color transparencies.
- ❑ Prepare a crisp beginning. Perhaps, start with a question, an application or a prop.
- ❑ Don't put too much on the transparencies. Use key words and phrases instead of entire sentences. Avoid filling transparencies with equations and formulas. (Don't compute in public.)
- ❑ Use pictures, tables, lists, models and props
- ❑ If you need a particular transparency more than once in your talk, make multiple copies and insert them at the appropriate places rather than trying to use a single one more than once.
- ❑ Use overlays when appropriate. Tape them in place so that you can simply flip them over.
- ❑ Replace the thin tissue paper separators that come with transparencies with heavier paper.
- ❑ Rehearse your talk but do not memorize it.
- ❑ Practice with an overhead projector and time your talk.
- ❑ Divide the latter portion of your talk into modules that you can unobtrusively disregard if time becomes a problem. If you have to omit portions of your talk, don't tell your audience that you are doing so. (You will come across as not well prepared.)
- ❑ Anticipate questions you may be asked and prepare a response to them.
- ❑ Conjectures and open problems add interest.
- ❑ Use brief reminders to yourself (a word or two) on your transparencies to be sure you do not forget to mention certain items.
- ❑ Have references or handouts prepared.
- ❑ Prepare for an off campus talk by first giving it in your department or a class.
- ❑ Prepare to dress nicely. It gives the impression that this talk is an important event for you and that you want to look your best.