Technical Presentation Seminar

Ferris Engineering Center-Room 141
University of New Mexico

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12:30-1:30

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Mark Worthy
Mark Worthy
Leanne Yanabu
Mark Worthy
Jeff Burdette
Small Group
Mark Worthy
Jeff Burdette
Large Group
Large Group
Mark Worthy
How to Improve a Technical Presentation

If you are a technical expert -- in engineering, programming, research -- you probably give presentations, to communicate highly technical information to diverse audiences with differing knowledge levels and technical expertise. Here are three ways to improve your presentations:

Simplify

If you're like most technical experts, you try to say everything you know about your subject in all its complexity and at great length. You cram as much information into your presentations as you possibly can. And you use twice as many PowerPoint slides as you have any hope of explaining in the allotted time.

You're afraid other people will think you're incompetent or uninformed if you speak simply and to the point. As a result, you end up talking really fast, leaving little time for questions, and boring much of your audience.

- You must understand your subject thoroughly so you can make it simple for your audience
- Know what you want to accomplish in the time you have. What do you want the audience to do with the information you're presenting?
- Prepare a clean, logical outline that presents information in bite-sized pieces.
- Decide how much information you can explain in the time you have available. Ruthlessly eliminate interesting, but non-essential elements.
- Limit your slides. Allow one and a half to two minutes, on average, per slide. If you have more than one slide per minute, rethink the purpose of your presentation.

State Your Conclusion Up Front

Make your presentation more interesting and easier to follow. Most people — especially most non-technical people — will stop listening after the second or third piece of data. They will never get to your important points. Instead of presenting your data and line of reasoning and ending with your conclusion, try this:

- State your conclusion up front
- Then present your supporting data and explain your reasoning
- Limit yourself to the most compelling information and arguments

You don't have to explain everything. You can let people know there is more to explore or explain, and you'd be happy to do so if they have questions.

Use the Q&A Session Effectively

For every twelve to fifteen minutes that you talk, set aside five minutes for Q&A. Your audience will become participants - not just passive listeners – and will be much more likely to cooperate with you. This, in turn, will make you much more confident and at ease.
Technical presentation for non-technical folks

Making technical presentation is a challenge if you're like me: shy, and usually not knowing enough about the technology that's being presented. Technical presentation for non technical people is one of the challenges that engineers face very often and one that's rarely done well.

Practice can actually make a master in this case, and the more opportunities you have to face non-technical audience the better.

1. Know your audience

The level of their technical knowledge should be important to you. It's useful to know if the audience is listening to your presentation:

• To use custom technology, to use something similar or build on the technology
• To know the concept that will be advertised by them to the customers
• To build the base of the knowledge that will be expanded later
• Whether they'll learn more about the topic in future courses or presentations

2. Be ready for new levels of abstraction

When addressing non-technical audience you'll try to avoid technical jargon to avoid confusing and boring your listeners. One very efficient technique is to use simple "everyday life" analogies when describing more complex issues. Acknowledge the fact that what you think is a simple analogy may not work for your audience. Prepare different explanations of the same problem, so if you notice that the idea is not well understood you have alternatives.

3. Focus on the information - don't force the "fun"

You might have heard that telling jokes and anecdotes - "being funny", helps to keep the audience engaged and interested. It's rare to find a technical geek easily entertaining a non-technical audience. If your presentation is boring, work on your slides to make them attractive, add images and diagrams wherever you can, and focus on different ways of presenting the info by adding analogies, abstractions or real life examples. For example, when talking about software solutions, add screenshots of applications that might be easily recognized by the audience.

Being prepared helps with fighting nerves, and less stress means better presentation. Try to talk slowly and don't rush. Good luck :).
The Technical Briefing:

A straightforward speech in which the speaker communicates specialized, procedural or scientific information to a critical audience.

The briefing is the most common kind of speech presented in today’s workplace. Briefings provide and explain important facts in a way that allows the audience to quickly grasp and apply those facts. Examples include:

1. An engineer briefs a group of managers on a current project
2. A marketing executive presents a briefing on a product test
3. A line manager briefs a division chief on production progress

Goal: Develop an outline for a technical briefing

Objective: Become familiar with the constituent elements of a technical briefing and apply them.

Be Systematic:

A major reason that technical presentations fail or are ineffective is the presenter's unwillingness or inability to invest time in preparation. A technical presentation should start with careful planning and proceed, step by step, toward a stated goal. The following outline will help you prepare for an effective briefing:

1. Analyze your audience
2. State your objective
3. Define your main message and support it

Analyze Your Audience

To design a briefing that is on target, you must consider your prospective audience.

1. Who are the people?
2. What are their backgrounds?
3. How much information do they already have about your subject?
4. What information are they looking for?
5. What are their needs?

Time is the most precious asset a busy person has. Avoid jargon or highly technical material that your listeners do not understand. Likewise, do not waste the audience's time explaining information that they already know. Careful audience analysis will help you avoid these pitfalls and ensure that your briefing time is well spent for you and your audience.
State Your Goal

Determine the result you want your presentation to achieve

State Your Objective

What do you want the audience to know or be able to do as a result of your presentation?

Define Your Main Message and Support It

What is the purpose of your presentation? State it in a single sentence. This sentence will serve as the focal point of your entire presentation, and should recur throughout your talk.

Your guides in selecting material in your presentation are your objective, your main message, and the needs of your audience. Try to select only three or four primary points that support your main message, and state each one in a single sentence. To finish your briefing, summarize the main points you have presented, and include any conclusions you have made clear in relation to them.

Activity

You are a manager of an engineering division. You have been asked to brief a new vice president on your division's function and activities. Also on hand will be several key members of the vice president's staff. Your task is to prepare a technical briefing that will include:

1. Objective
2. Main Message
3. Primary Points

Further Resources:

- How to Give Technical Presentations to Non-Technical Audiences
  photonicssociety.org/newsletters/dec05/tools.html

- Science Communication Workshop Insights
  news.lternet.edu/Article2309.html

- Confessions of a Public Speaker
  www.scottberkun.com