Give a Great Presentation

You might be the one on stage, but the audience is the star of any good presentation. Follow this guidance to keep your focus on them.

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Marketing To Engineers

Most of us, engineers or not, dislike or even fear giving presentations. Why are so many people afraid of public speaking? According to an article in *Psychology Today (1),* one reason for speaking anxiety is that many believe, rightly or wrongly, that they are subpar presenters. They worry that their lack of polish at the podium is a threat to their image, credibility, and chance to influence the audience.

It is worth working to overcome speaking anxiety. Not only is it an inevitable part of work and life, but improving your communication skills, which includes writing and giving oral presentations, is key to accelerating your career and achieving business success. This article offers presentation tips that can help you research, outline, prepare, and present talks for a wide variety of situations, ranging from presenting a paper at an AIChE meeting to presenting your research results to management.

Open with the audience in mind

Before you proceed past your title slide and get down to business, take a moment to give a quick pre-introduction to bond with the audience. This bond will get the audience to like you (at least a little), which will get them to listen more closely and be more open to your content and views.

For example, the presentation I give most often is a full-day onsite training class for corporate clients on technical writing, and usually my audience is primarily engineers and technical managers. So, the first thing I do is tell them I am an engineer. Right away, they are a bit more receptive, because people listen to people with whom they have something in common or perceive to be like themselves.

Most engineers I have encountered in my classes are not interested in writing. I typically ask who loves writing and no hands go up. I then ask who dislikes or doesn't care about writing and was forced to attend the class by their supervisor. Hands go up, and the group is smiling and even chuckling. By acknowledging their attitude and feelings, I have now largely overcome their indifference or disinterest before even beginning the class.

You increase listeners' interest when they get a direct benefit from the content of your talk, and the more tangible, the better. A common mistake is neglecting or forgetting to tell the audience what is in it for them. Often the technical details are great, but the big picture is missing. Why should the audience care? What is the implication of the work? What problem is being solved?

Get to know the audience

Circulate among people who have come to the meeting or session early, before you are settled in behind the podium. Introduce yourself and, if you do not know them,

ask who they are and what they do. Also ask, "If you could get one thing out of my presentation, what would that be?" Then, make every effort to deliver on their request.

As you speak, refer to some of the attendees you spoke with by name and mention anecdotes related to them. For example, "I was speaking to Ray and one thing he does to achieve compliance is …" Share something valuable Ray told you, as long as it was not confidential. This helps to strengthen the bond with the audience and customizes your talk to them.

Keep in mind that some attendees will leave early, and they may not warn you of this in advance. Never comment on this in a negative way. Doing so presumes your talk is more important than the task they are leaving to attend to.

Talk about what you know

In Robert B. Parker's suspense novels, his hero Spenser says of his sidekick Hawk: "Hawk always knows what he is talking about. Not because he knows everything. But because he only talks about the things he does know." Engineers must often present to nontechnical staff on technical topics, and, in these cases, your expertise puts you at an advantage. Your audience members are likely not experts or as well-versed on the topic of your presentation as you are.

Even if you are an expert on the subject matter, you should research the topic of your talk. The amount of human knowledge doubles every 12 months *(2)*, which makes it impossible to keep up with every development, even if you are highly experienced in a relatively narrow discipline. Augmenting your current knowledge with other sources enables you to add valuable content to your talk that you might otherwise miss. Rather than diminishing your expertise, this shows you are constantly expanding your knowledge base.

Basic secondary research might include conducting online searches, reading articles in trade journals and books, and drawing from your real-life experiences. For instance, if you want to talk about losing weight, lose weight. If you are talking about pumps, make sure you know your way around the online pump catalogs.

Primary research often involves talking to subject matter experts to learn from their firsthand experience and most recent findings. If these same subject matter experts attend your lecture and you attribute their ideas to them, they become even more engaged and more persuaded by your message.

Present your content

You have heard it before, but it bears repeating: Do not read the contents of your slides verbatim during your presentation. Similarly, do not type and read the entire presentation word for word. Use the bullets on your slides as an outline, which will help you to sound more natural and less rehearsed. Reading the bullets or notes will bore the audience. It also calls into question the merit of sitting through your presentation. If you are only going to read the slides, you could have just as easily given them to the audience to read at their leisure.

Reading slides or a script rather than presenting typically also causes you to speak in a monotone, which reduces audience engagement and can put people to sleep. The enthusiasm you bring to the presentation will be mirrored in your audience. Convey the importance of the subject through your voice, body language, and eye contact. Make eye contact with members of the audience, one at a time to keep their attention on you.

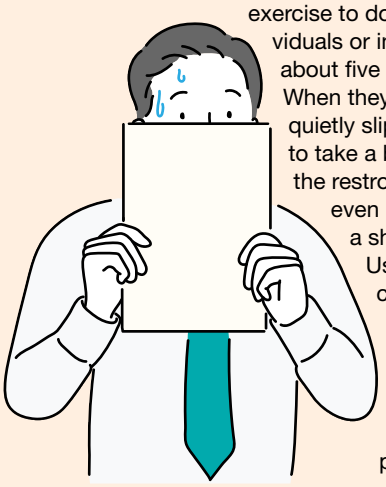
In smaller groups where you do not personally know the people in the meeting and the room is set up with tables, ask the meeting planner to provide place cards and a few markers. Ask attendees to write their names on the cards and put the cards on the table in front of them. If participants are not actively involved and you want the talk to be more interactive, you can call on a few people by name. Most do not mind, but if someone is shy or resistant, move on to the next person.

Rather than using a microphone on the podium, arrange in advance to have either a hand-held microphone or a portable microphone pinned to your lapel or shirt. This

Nervous? Learn to cope

If you are new to presenting or nervous when doing so, you may wish for an opportunity during your talk to stop for a second to gather your thoughts or steady your nerves. To do this without letting the audience catch on, have a glass of water on the podium or table and when you want a break, pause to take a drink.

For a half-day or longer training class, you may need a longer break. If the class is small, give them a simple exercise to do, either as individuals or in groups, that takes about five minutes to complete. When they begin working, quietly slip into the hallway to take a breather and visit the restroom. If you need an even longer break, show a short training video. Use a video that either covers something you do not feel you explained or know well, or brings a difficult or important subtopic of the presentation to life.



allows you to step away from the podium and walk into the audience area, which makes your talk seem more personal and active.

To gesture and draw attention to certain parts of a slide, use the pointer on your laptop and set the arrow to visible so it is always on screen and easy for you to find at a glance. Laser pointers can be problematic because they force you to turn away from the audience. Never gesture at the screen with your arms, because your audience has no idea what you are trying to point to.

Consider visual aids carefully

Some speakers prefer to talk without visual aids and additional materials. For technical presentations, however, additional description, references, charts, tables, and graphs are almost always a necessity. Although most audiences expect to see slides and, at many meetings, the meeting sponsor requires speakers to use Microsoft PowerPoint, this information does not necessarily have to be shown using slides. Some information and visuals may be better displayed in a handout or drawn on a white board. Your slides or other visuals should be in sync with your verbal presentation, not in competition with it.

Reference 3 offers a five-and-five rule for making PowerPoint slides. The rule states that a PowerPoint slide should have no more than five bullet points of no more than five words per bullet on average. This limit ensures your thoughts are succinct and your audience's attention is on you and not on your slides.

With fewer words on the slide, you will have no problem making the type large enough to be read from the back of the room. In addition, use a common font. If you upload your slides to another computer, as is sometimes the case at large conferences, that computer may not have the same font installed and your slides will look like gibberish. You should never have to acknowledge that a slide or image may be hard to read because it is too small, crammed, or illegible. If you think there is a risk of this, spread information out onto multiple slides or move the information, data, graph, or table to a handout. Use the slides to summarize the information in the handout.

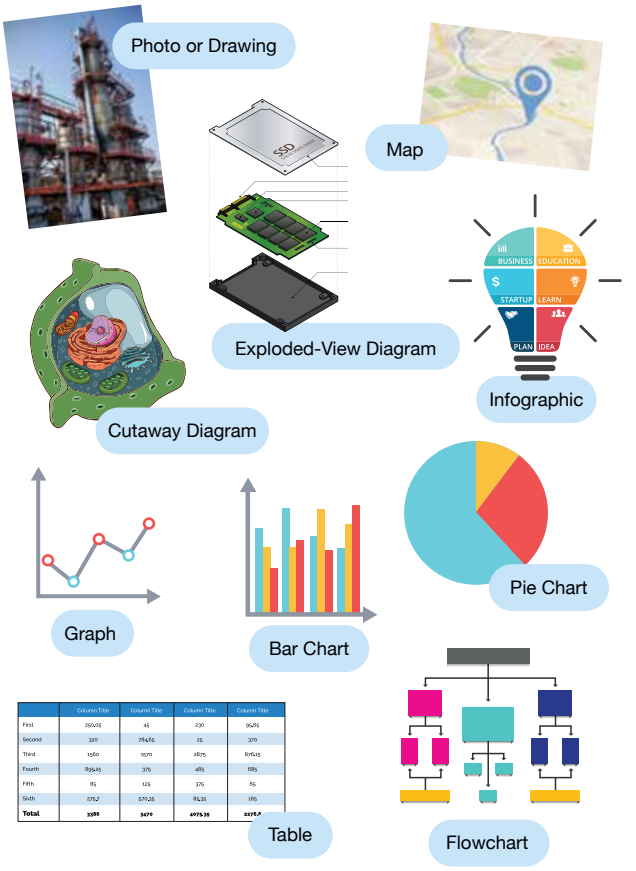
Consider the visuals you put in your slides and handouts carefully. Figure 1 summarizes what some common visuals communicate to the audience. If you use a diagram from another source, be sure you understand it well enough to explain it to others. If not, you may be embarrassed during the question-and-answer portion of your talk.

While handouts and slides may be appropriate to illustrate some concepts, demonstrations, props, and videos are also useful tools that engage attendees. For example, bring a sample of the equipment you are discussing to show the various components. Do not attempt a demo that is so difficult that you may flub it on stage. Also, be prepared in case your demo or prop does not work, and ensure you can give a good presentations without it.

Be considerate

If you are presenting terminology, or units that may be unfamiliar to the audience, define them the first time you use them in your talk. Do not assume everyone in your audience knows words, terms, and acronyms. For example, during a talk on HAZOP, an attendee said HAZOP had nothing to do with operability because they did not know that HAZOP stands for hazard and operability.

Be considerate of your audience's time as well. End your talk exactly when it is scheduled to end or risk a restless audience. Meeting planners should prepare three signs and hold up the signs to alert speakers as to the amount of time



▲ **Figure 1.** Each visual communicates something different: Photographs and drawings show what something looks like. Maps indicate location. Cutaway diagrams show how something is put together. Exploded-view diagrams depict the order of assembly of parts. Infographics summarize key facts and statistics. Graphs show how one variable changes in relation to another, while bar charts compare quantities. Pie charts help visualize proportions and percentages. Tables summarize data. And, flowcharts lay out the steps of a process.

remaining for the session, *e.g.,* 10 min, 5 min, and 1 min.

Presenters often go over the time limit because they did not rehearse before the meeting. Practice your talk and do it aloud at your normal speaking rate. Ensure you can cover your slides in the allocated time. Estimate how much time you spend on average on a slide, divide your time slot by that number, create that number of slides, and when delivering your talk, keep up that pace. For a technical presentation, estimate about two to five minutes per slide, and for a nontechnical talk, about one to two minutes per slide.

An average speaking rate for presenters is about 120 words per minute. At that pace, a 30-min talk at your local AIChE chapter meeting is approximately 3,500 words. However, ensure you know your audience and adjust your speaking speed up or down to match their expectations. I live in the New York City tristate area, where we typically talk fast. When I give a training class in Alabama or Tennessee, I slow down a bit.

Arrive at the meeting room one hour early to check on the arrangements and make sure the audiovisual equipment is working. You do not want to spend the first ten minutes of your presentation working through technical issues. Respect the audience's time and attention.

Remember your three Ts and Ps

TTT. The TTT formula for successful presentations is: tell the audience what you are going to tell them, tell them, and tell them what you told them. The introduction is a preview that tells the audience what to expect (*i.e.,* the first T of TTT). The body of your presentation conveys the necessary information (*i.e.,* the second T). The conclusion summarizes the major points presented in the body (*i.e.,* the third T).

I usually cover the first T by presenting a summary of what the body of the presentation will include right after the title slide. I insert this same slide at the end of my PowerPoint to cover the third T.

Many engineers like to divide their content into numbered segments, which can be appropriate. But, consider telling your audience just one main point rather than sharing many ideas. Some speakers have found it works better to only tell, tell, and tell them again one thing.

PPP. The three P's for speakers to remember are prepare, practice, and present. Prepare by selecting a topic, making an outline, researching the subject, creating your visuals, and writing speaker notes. Practice aloud, in front of a mirror, and into a digital recorder, and play back the recording to be sure you are speaking at a good pace. While presenting, make eye contact with the audience, speak clearly and loudly, and exude energy and enthusiasm.

Close thoughtfully

If you are speaking before a large group of strangers, such as presenting a paper at an AIChE meeting, when you finish, pause for a few seconds, look at the audience, and say, "Thanks for your attention." Then, pause for another beat and finish on a positive note with: "You're a great audience."

Throughout your presentation the audience should be your primary focus. You are presenting to meet their needs. At the start, you asked them what they wanted to get out of your presentation. To close, request feedback. Ask the audience to mentally rate your talk on a scale of 1 to 10, with 10 being the best. Next, ask them to write down the one thing you could have done to raise their evaluation to a 9 or 10. Leave some time at the end to ask a few audience members to read what they wrote and address their points. Not only will the audience get more out of your talk, but it will actually raise the audience evaluations of your presentation.

The end of your presentation is a time to solicit questions. Not being asked questions during the question-and-answer session does not mean you did a bad job or bored the audience. Some audiences are shy about asking questions, and audiences composed of engineers can sometimes fit into this category. Nevertheless, it is natural for you to be uncomfortable when no one asks a question, but there is a solution. If the meeting sponsor is in the room, give him or her a few questions written on an index card. Or, if you have colleagues or friends present who are willing to help you, give one of them the index card. Once one person in the room asks a question, usually a few others will also.

Strive to make your talk good or excellent, but never perfect. We seldom speak to a group as well as we want to. We only speak as well as we can. CEP

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