

Speak Up!

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“There are two types of speakers. Those who get nervous and those who are liars.”—Mark Twain



With all due respect to **Samuel Clemens**, we think there are probably two more, those who don't care, and those who are so full of themselves that they fail to prepare. But, if you are reading this, and you're afraid to give an oral presentation at the next APS meeting, you probably aren't in either of those two groups. Which puts you in the same group that most of us reside in: people who fear public speaking. Realize that being nervous/afraid is normal. Many of the speakers who you've seen and whose talks you admire began as twitchy, voice-shaking graduate students—we did. Unfortunately for the weak-kneed among us, the reality of a scientific career is that some of the biggest impact moments will be tied to oral presentations: meetings, defenses, and job interviews. The good news is the difference between fear and success can be overcome with time, preparation, and practice. The time will happen no matter what you do, the rest is up to you.

Preparation

There are three secrets to successful public speaking: Respect your audience. Respect your audience. Respect your audience. Before you begin, make sure you understand your audience. Too many people (students and established professionals) launch into their presentation without providing the background knowledge to frame the talk. This is about respecting your audience—not talking down to them. You want to present your research question in a way that your audience genuinely wants to know the answer, and then you want to provide the answer in a way that they can understand it.

There is no better way to do this than with clarity and succinctness. Writing those two words is so much easier than actually doing the heavy lifting to achieve them. When working on your talk, strive to use as little jargon as possible, and have all jargon explained, if it can't be avoided. Be explicit—recognize that the listener is not going to know the subject matter, and if you don't connect the dots, they may not be able to.

Rely on pictures, graphics, and cartoons to illustrate your talk. If a picture is worth a thousand words—a good picture is worth even more. Photograph your work. In this day of digital images, there is no reason to not capture your research. If you don't have an image you need, the web provides numerous images that you can use (be sure to credit your sources!).

Every talk has a couple key moments, two or three critical slides that can make or break the talk. Generally, these are near the end of the background material, when you explain the “why” behind your work (hypothesis), the key data slide(s), and the conclusions. Get these slides right, and the audience follows your story and stays involved. Miss them and your audience is texting. Spend extra practice time on these slides. Practice them one at a time, making sure you hit all the right points.

Finally, keep your talk on time. There is no greater way to show your audience and fellow speakers that you don't respect them than by going over time. A general rule of thumb is one slide per minute of talk. Recognize that technical sessions are broken down into 15 -minute increments, with approximately 12 minutes for the talk and about two minutes for questions. It may simply not be possible to get everything in that you wish. A good speaker recognizes this, and focuses on the parts that are essential to the story.

Practice

One of the most important things to recognize when learning a new skill is the role of practice. This means giving your talk with your slides and without them—you never know what can happen. I once had to give a two-hour talk without any power—just me (Janna), 60 master gardeners, and a chalkboard. It happens—I don't recommend it, but I survived because I knew my subject matter, and I was comfortable with it. The only way to get to that point is to practice at every opportunity—in the car, in the shower, instead of watching “Game of Thrones.” Especially not when you are watching “Game of Thrones.” When you practice, you need to be focused on what it is you are doing, not distracted by what you wish you were doing.

While you are practicing, work on “developing your script” but don't write it down. I generally practice my talk, timed, in front of my computer screen. When something doesn't work, I go back to “shuffle mode.” I realize that if things aren't flowing for me, they probably aren't going to flow for the audience and I need to rework my script. Whatever you do, *don't memorize every word*. A funny thing happens when we memorize talks, one forgotten word can throw us off our game completely. Knowing your talk is very different than memorizing it. Anyone can memorize a talk—you did this work. Knowing it is owning it.

Practice your talk on videotape before you give your speech. Either you or someone you know has a smartphone that can do this, and most departments have videotaping equipment. You will discover two important points: (1.) Even at your absolute worst, you weren't as bad as you thought, and (2.) There is room for improvement. This is where you go back and practice. And then practice some more.

And while you are practicing, remember that you strive for progress, not perfection.

Giving talks is a process, and the process isn't over at the end of the presentation. Take the time to get critical feedback from peers and mentors, and then look for your next opportunity to do it all again. Take every speaking opportunity you get, because practice not only makes perfect (well, closer to perfect), but it also makes it easier the next time. APS divisional meetings and annual meetings are a great place to start; the audiences are not only interested in what you have to say, you'll find that most APS members are very supportive.

A great and underutilized resource for honing your public speaking skills is Toastmasters (www.toastmasters.org). Toastmasters was founded 90 years ago by **Ralph C. Smedley**. In the laboratory, we experiment with plants, pathogens, and the environment. Toastmasters is a laboratory where speakers experiment with words, ideas, and voice to create a story. Your story. Develop it. Practice it. Own it. ■