The three-minute pitch

Communications competitions are helping psychology students captivate audiences with their research. Here’s how you can, too.

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Last year, cognitive science graduate student Elizabeth Trimber found herself struggling to describe her research on reward sensitivity to other students and faculty at Stony Brook University, in Stony Brook, New York. "I was suffering from the curse of knowledge," she says. "I didn't have a good sense of what other people already knew about the topic."

So, Trimber took a course at the Alan Alda Center for Communicating Science at her university, where she and other science students practiced writing about their research for a lay audience. She used what she learned to enter her school's Three Minute Thesis (3MT) contest, an annual competition that gives PhD and master's candidates 180 seconds and one static PowerPoint slide to explain their research to a general audience.

She won third place for her talk "Impulsive Decisions and Reward Learning," but says she is most proud of the fact that she now has a clear, concise "elevator pitch" on her research that she can share with anyone. "It's so important for your work to be understood because why else are you doing it?" she says.

Trimber is among a growing number of psychology students who are sharpening their skills through communications contests at their universities so they can explain the value of their work to fellow researchers as well as to the public, policymakers and funding agencies.

Universities are increasingly hosting such events to give students a chance to practice their communications skills before they graduate. The University of Queensland in Australia came up with the 3MT concept in 2008 after the region experienced a severe drought and residents were encouraged to shower in under three minutes. By 2011, universities worldwide were hosting 3MT competitions. Today, they are held at 600 universities, including 170 in the United States (https://threeminutethesis.uq.edu.au/participating-institutions). Other schools, such as Brown University and the University of California system, have launched similar versions for their students.

Knowing how to communicate across disciplines, students say, also makes them more competitive in today's multidisciplinary job market.

"These skills [are] critical for teaching because your audience will always be filled with people with diverse ways of thinking and learning," says psychology graduate student Kristina Smiley (https://www.youtube.com/watch?v=w2C3PM12V0A) of Cornell University, who won her school's Three Minute Thesis contest last spring for her talk "Prolactin: It's Not Just for Lactation!" She started her postdoc in New Zealand this fall and says participating in the competition made her more confident about meeting her new colleagues.

"I'm going to be constantly moving into new areas of research, and every time I do that, I will have to know how to explain my new project. I am always going to be working on these skills," she says.

Here's how you can hone your research to a jargon-free three-minute pitch:

Connect with your audience. The best presentations start out showing how your research is relevant to your audience and reinforce that idea at the end, says Kate Swanson, who works for Three Minute Thesis headquarters at the University of Queensland in Australia. So, first grab the audience with a bold statement on how your topic applies to people's lives, then tell the story of how your work produced a benefit to humanity, she says. "Try not to get too bogged down in the minutiae of your methods. They are important and should be included, but they need to contribute to the story you are telling about your research."

One way to home in on the information that your audience will connect with is by presenting it to nonpsychologists and asking them to tell you what they think is most exciting about your research, says psychology graduate student Xuan Zhao of Brown University. Zhao used this technique when developing her talk "Through the Eyes of a Robot" for "Research Matters!" Brown's version of 3MT, in which
students get five minutes to present why their research is important. "When you hear other people's fresh perspectives, you see how to tell the story and you also get more excited about your research," Zhao says.

**Envision a one-sentence takeaway.** Your goal is for your audience to be able to describe your research in one sentence after you speak, says UCLA graduate student Leslie Rith-Najarian, who won first place for her three-minute talk "Making Mental Health More Engaging and Accessible (http://newsroom.ucla.edu/stories/ucla-psychology-graduate-student-wins-uc-grad-slam-competition) " in the University of California's "Grad Slam" communication competition.

To do that, she kept technical details—such as the limitations of her study—out of her talk and focused on a few broad, basic points. She also used the time limit to structure her talk, devoting one minute to why studying depression and anxiety matters, one minute to describing the online mental health program she created for college students and how she tested it, and the final 60 seconds to results and why she studies mental health issues in young people.

**Cut the jargon.** Replace such phrases as "randomized control trial" with "study" to be more easily understood and to save precious seconds, advises Rith-Najarian, who practiced her presentation with fellow students, undergraduate research assistants and friends outside of psychology. "If it took me a long time to say, I figured it wasn't a word that needed to be in the presentation," she says. She also stopped worrying about dazzling the audience with scientific terms and focused on making psychology sound simple. Trimber learned to make her word choices more accessible by playing a 3MT game in which she had to explain baseball to someone who knows nothing about the sport without relying on such terms as "base" and "pitcher." "I learned to step back so much further from the terms I am used to using," she says.

**Learn from the experts.** Search "Three Minute Thesis" on YouTube to view videos of winners and competitors throughout the sciences from universities all over the world. Also, videotape and watch your talk to spot physical and vocal nervous gestures you should eliminate, says Barbara Tannenbaum, PhD, who teaches persuasive communication at Brown University and coaches scientists on how to polish their research presentations. Common distractions include frequent throat clearing, shifting from foot to foot and using filler words such as "um," "like" and "anyway" that eat up time.

**Design a strong, simple slide.** Use psychology research to make your slide powerful, says Harvard professor emeritus Stephen M. Kosslyn, PhD, whose book "Clear and to the Point: 8 Psychological Principles for Compelling PowerPoint Presentations" explains how to use what cognitive scientists know about information processing to enhance presentation slides. One research-tested insight is to provide no more than four pieces of visual information on one slide or you'll overwhelm the audience, and to only include information you'll have time to explain. Better yet, create a slide that speaks for itself. Swanson says the most effective slide she has seen was a simple, giant orange used by a chemistry student who is developing rocket fuel using a chemical found in orange peels.

**Avoid being cute.** While subtle humor can draw in an audience, an overreliance on jokes or puns can bury your message. "Bad puns can go badly more often than they can go well," says Swanson. "Often, it makes your research sound cheesy." Before you try a comedic approach, try it out on colleagues who can tell you whether you are being clever or cringeworthy, she says.

**Take acting or improv classes.** Any time spent performing will improve your research presentation skills, says Michael Hartwell, who teaches Improvisation for Scientists and Engineers to graduate and undergraduate students at Johns Hopkins University. Many improv exercises "force people to look ridiculous right out of the gate," says Hartwell, which teaches a deep sense of humility that, in turn, builds poise. "When you can laugh at yourself and be comfortable with people laughing at you, you become infinitely more confident," he says. Improv also teaches people to roll with their mistakes, which are inevitable.

Zhao took two acting classes at Brown that helped her feel comfortable in front of an audience. While the classes took time away from her research and coursework, honing her communication skills was an investment in her future—which she hopes includes a TED Talk, writing books for a general audience and a job where she can help shape business and policy. "In the long run, it doesn't matter if I run one more study, but I know that investing time in practicing these communication skills will go a long way."

To watch the presentations by Leslie Rith-Najarian, Kristina Smiley and Xuan Zhao, visit the Monitor's digital edition at www.apa.org/monitor/digital/3MT.aspx (monitor/digital/3MT.aspx).