

MISTAKES WILL HAPPEN IN GRADUATE SCHOOL

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Have you ever wondered about what it takes to be successful in graduate school? What can you do now to prepare for your graduate school adventure? This past year at the AMS Student Conference, there was a session titled “How to Succeed in Graduate School” for more than 700 undergraduate and graduate student attendees. One speaker, Gretchen Mullendore, an associate professor at the University of North Dakota, presented her perspective on being a successful graduate student and scientist during her talk “Mistakes Will Happen.” Mullendore offered students three pieces of advice, given that mistakes always happen in graduate school and in one’s career as a scientist.

First, she noted, graduate school is not a competition and should not be compared to undergraduate school.

“Undergraduate school is fundamentally based on a scoring system on a level playing field,” she said.

“Graduate school is a broad range of very different projects and pathways. It is definitely not a straight line.”

Therefore, you should not judge yourself against other graduate students, because everybody’s path is different. Research is filled with setbacks and mistakes, but everybody can be successful through their own unique path and experience.

Second, Mullendore offered a step-by-step recipe to implement throughout graduate school and as a scientist: Risk. Fail. Repeat. According to Mullendore, “scientific breakthroughs happen when we try something new, not by repeating the work of the past. Sometimes it doesn’t work at all, and that won’t end. That’s part of being a scientist. It’s supposed to happen. Be willing to take risks.” Once you take risks, do not be scared to mess up: “Failing is an opportunity to learn, so be brave enough to be wrong!” Finally, repeat the process of taking risks and failing.

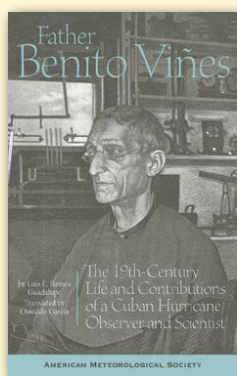
“Science is mostly about learning what doesn’t work, and then starting over,” she noted. “Be willing to risk, to be wrong, and fail. That is how to be a scientist.”

Third, remember that everyone fails. Mullendore noted that in a published journal article, “what you don’t have were the 20 things that they tried, didn’t work at all, and were bad ideas. You don’t see all the methods that didn’t work.”

You don’t see the bumps and detours along the way to publication. Having bad ideas is part of the scientific process. The same is true when a scientist is introduced at a professional conference. You hear about all of their awards and accomplishments, but you do not hear about the bumps and detours in their career and the mistakes along the way.

Students were left with a new and inspiring perspective on graduate school. Do not compare yourself to others; instead, form your own unique path. Make sure to take risks, fail, and repeat. Finally, remember that everyone fails, and mistakes are part of the scientific process. As Mullendore said, “Mistakes will happen and should happen. Enjoy the adventure—it is part of being a scientist.”

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