



ROOM FOR IMPROVEMENT

Pennoni Aspire students learn improv techniques to deal with the uncertainties in research

BY DONNA KWON, BIOLOGY '17



s both an educator and a researcher, Dr. Gabriela Marcu, an Assistant Professor in the College of Computing and Informatics and a Research Fellow with the A.J. Drexel Autism Institute here at Drexel, has consistently shown great dedication to improving learning and living conditions for underrepresented populations.

I had the opportunity to participate in Dr. Marcu's interactive workshop, "Fake It Till You Make It: Improv for Future Researchers," during the fall term, as part of the Pennoni Aspire Program. Through this workshop, I and several other students from different majors learned how and why to apply improvisational techniques to a research career.

Dr. Marcu's workshop was remarkable in its appeal to students of all educational backgrounds, providing a crucial, yet often overlooked perspective on what it means to do research. I wanted to know more about Dr. Marcu and what led her to combine her research with improvisation. Here is my interview with her:

DONNA KWON: Please tell me a little bit about your research.

DR. GABRIELA MARCU: My research is about using technology to empower people and level the playing field in their social lives. As mobile, social, and wearable technologies infiltrate every aspect of our lives, I want to make sure they have a positive impact. I am especially passionate about working with populations who are underserved, marginalized, or stigmatized. I interact with them to understand their experiences and needs, and then design and develop new technologies together with them. My projects have focused on supporting children with autism spectrum disorders and other behavioral health needs; the disproportionate effects of HIV on young African American men who have sex with men and transgender women; the barriers faced by breast cancer survivors in becoming physically active after treatment; and the social pressures on young women of color that lead to their being pushed out of the school system. Empathy often drives work on these projects, so I direct what I've aptly named the Empathic Design and Technology Research Group.

DK: How did you come up with the idea for the improv workshop?

GM: I was inspired by Alan Alda's "Improvisation for Scientists" Program. I have a passion for training new researchers, especially at the undergraduate level. And his approach made a lot of sense to me. I could immediately see a lot of possibilities for using improv to help newbies with some of the challenges of starting out in research. Plus, I love opportunities to make my two worlds collide: my research career and my improv hobby. I had wanted to do something like this for a while, and Pennoni enabled me to make it happen, for which I'm very grateful.

DK: What are some of the main points you try to impart to students through improv?

GM: Students are trained to follow directions, do readings before class, revise drafts, rehearse presentations, and generally be well prepared. Rules, steps, rubrics, and right or wrong answers are often what our schooling revolves around. Students don't always get opportunities to learn how to be flexible, how to know what to do when there are no rules or steps, and how to be confident about their work when there are no rubrics and there is no right or wrong answer. Improv helps you find your voice and your way under these circumstances. You can speak up and have something to contribute no matter who you are or how much experience you have. You can be engaged and feel like you belong, even if you have no idea what's going on — yet. You can be okay with uncertainty, and be confident and comfortable when your smarts and preparation can't save you.

Oh, and students sometimes think that being intelligent and knowledgeable means being critical and tearing down others' ideas. I love using improv to show that we can be open to crazy ideas and diverse opinions, have fun, and make everyone feel heard and included ... while still developing our critical thinking skills, having high standards, and doing rigorous work.

DK: How do you use improv in your own research and teaching/mentoring?

GM: When students step into my lab as research assistants, the first thing they have to do is shake the assumption that

everyone knows exactly what they are doing, and the sense of intimidation they feel along with that. Much like improv, in research we deal with a lot of unknowns and uncertainties. Students always look to me to tell them exactly what to do and predict everything that's going to happen, the way professors teaching their courses would do. But in research we are doing something new that no one has ever done before. We are seeking out new knowledge about something that no one understands yet. I can train you in certain skills and teach you about the scientific method, but overall we're in uncharted territory. This is one of many things I love about research, and once students get used to it they enjoy it too. But it can be scary and intimidating at first.

I kept finding myself describing the research process as making things up as we go along, so I started doing improv exercises in meetings with my research group. It's been a great way to help get a variety of ideas across as I am mentoring students who are new to research. It's ok to not know what you're doing. I may be the only person in this room with a PhD, but I don't have all the answers and I'm looking to all of you to help me figure things out as we go. We need creativity and a diversity of perspectives, so even if it's your first day I want to hear what you have to say about the problem we're working on.

Improv has helped me overcome some of my own fears, self-doubt, perfectionism, and rigidity. I try to mentor students when I see some of these qualities in them and I can relate to their experiences. I nudge and encourage them, and then get to watch them stop standing in their own way as they blossom and mature. Improv has become a part of this process because it helps you learn about yourself, especially how you react under uncertainty and pressure. In my research group, I strive to create a safe space where we can all work on these things together and support one another.

DK: How do you think improv complements the goals of the Pennoni Aspire Program (personal, professional, and academic development to prepare students for post-graduate success)?

Improv teaches you to not crumble, panic, blame, or run when things don't go as planned.

GM: I started training in improv, at Philly Improv Theater, when I had just finished my PhD. Feeling proud of myself and pretty smart, I came into it confidently ready to take on the improv world. But that's the thing about improv — you're never ready and never confident. Improv helped me realize how much my accomplishments were based on preparation and practice.

Once you step out of the classroom and into the real world, you don't always have that luxury. You have to think on your feet, be resourceful, and do what you can with what you have.

I was a well-rehearsed, well-read expert who was exceptional at following rules and directions. None of these things helped me survive in improv. After years of being a hard-working, organized, and detail-oriented student, I realized there was an entire other set of skills that would be very useful for my success (not to mention my overall sanity and wellbeing). Improv teaches you to not crumble, panic, blame, or run when things don't go as planned — or when there was never a plan or script in the first place! You learn how to have grace

under pressure, and work better with others to get to where you need to go.

DK: What can students work on long-term as far as incorporating improv into their lives?

GM: Noticing when you feel uncomfortable, nervous, scared, or stupid. Understanding that these feelings are normal, but do not have to hold you back. You are never the only person in the room afraid of saying something stupid. More often than not, if you take that risk it's not going to go as poorly as you imagine, and you will empower yourself to overcome these fears. It takes practice to keep telling yourself it's ok to not always know what you're doing, and to step out of your comfort zone in order to grow. You are probably your own harshest critic, so the more you gain control over those internal messages, the better you will be at challenging yourself while handling criticism from others. 