The power of mentoring

I was born a scientist, but becoming one professionally required a little help. Stellar teachers nurtured my love for science and engineering in middle school. Later, after some missteps and struggles in high school, professors at Manchester Community College conspired to change my life course from high school dropout to Ph.D. holder. One of them was my first algebra teacher. On the first day of class, she wrote on the board, “You CAN do math.” “You may not believe that now,” she told us, “but you will by the end of this semester with me.”

She taught me that I could learn things even if they were hard, and that I didn’t need to know them instinctively. When I transferred to the University of Connecticut for my bachelor’s degree in molecular and cellular biology, this principle served me well in the 200-person introductory “weed-out” courses.

I thought that I would be a technician at a pharmaceutical company after graduation, so I worked in various labs on campus to gain the critical hands-on experience I would need. But my career trajectory took a turn during the last semester of my undergraduate education, when my lab adviser encouraged me to consider going to graduate school for a Ph.D.

I hardly even knew what grad school was, but once she opened my eyes to the possibilities, and we came up with a funding strategy, I was hooked on the idea.

Getting my Ph.D. was the first step on my circuitous route toward a professional life that I could never have imagined. I did a postdoc and worked on technology transfer and in university administration before starting my own business and management consulting firm, 32ATPs. I entered the political arena with a 1-year appointment as Utah’s state science adviser. In this role, I shepherded a precious allotment from the state legislature of 10 million hard-won dollars for science, technology, engineering, and mathematics (STEM) education. I then started the R&D arm of 32ATPs and recently co-founded my second startup, EduPaper Products, where I pursue my passion of making STEM education accessible to everyone.

None of this would have been possible without the encouragement I received.

Girls are typically discouraged from entering STEM fields, and I was lucky to be an exception.

I have worked to pay it forward by acting as a mentor for girls and women in STEM, passing on the advice that has worked for me:

• Be brave enough to take the next step, whatever it is.
• Identify what you want, and don’t be afraid to ask for it.
• Don’t be afraid of rejection. It is going to happen; put yourself out there anyway.
• Build your professional network, and ask for help from those connections when you need it.
• Have your own brand: something that makes you unique and that people will remember you by.
• Get a full night’s sleep and don’t skip meals. You make mistakes when you’re tired or hungry!

Every time you do something new, creative, innovative, or different, write up how you did it. Catalog it so you can easily advise others who may need your help in the future.

I still need advice, too. I stay in touch with many of my mentors, and I find new mentors through state- and federal-level professional services. These days, I worry just as much about giving back to my mentors as I do about learning from them, and I am honored when my grad school mentors ask me for help. Mentorship, I like to say, works up, down, and sideways.

Carol Lynn Curchoe is the founder of 32ATPs, a clean energy and consulting firm in San Diego, California, and co-founder of EduPaper Products. She was named among Utah Business magazine’s top 40 professionals under 40 in 2014. For more on life and careers, visit ScienceCareers.org. Got an interesting career story? Send it to SciCareerEditor@aaas.org.
The power of mentoring
Carol Lynn Curchoe

Science 350 (6259), 478.
DOI: 10.1126/science.350.6259.478

Use of this article is subject to the Terms of Service