For this month’s column, the Early Career Members Committee asked three early career members to give career advice in the following three areas: preparing yourself for a career in academia during grad school and postdoctoral years, making yourself known to stakeholders when developing a successful extension program, and overcoming your biggest challenge when starting your career.

Preparing Yourself for a Career in Academia during Grad School and Postdoctoral Years
by Song Cui

Graduate and postdoctoral education and training are hard and rigorous, both in terms of the physical effort needed to complete the tasks and also the intellectual development processes to prepare yourself for the competitive job market. To be successful in today’s academic environment, you need to learn to excel in four things: having solid technical/research skills, being creative, mastering selling ability, and learning how to teach.

Looking back at my graduate school/post-doctoral experience, there are so many things I could have done better. The first thing I should have done was be more patient. During the early years in graduate school or postdoctoral training, everyone is very energetic and enthusiastic about learning new things and formulating their own ideas on designing research projects. However, your own taste hasn’t been calibrated to meet the standard of “good” science. Thus, taking time to read well-recognized papers in your field, along with assisting your advisers, senior researchers, and students within and beyond your normal duty, will help you learn established methodologies, conventions, and writing skills before you move forward. Meanwhile, by being a patient learner, you will form a peer support group and gain help from your supervisors.

The ability to develop creative ideas in hard to obtain. Oftentimes, you might realize that your “creative” ideas have been implemented by others decades ago. I think the critical move towards being “creative” is when multiple knowledge domains collide and merge together. When I was in graduate school, I took many courses in science/machine learning and got to know professors completely out of my own major. I realized that a lot of problems in my field could be solved using advanced data science algorithms that no one had tried before. I am not sure if this is “creative” or not, but I think it is critical to eliminate the isolation across different disciplines when conducting research.

Mastering selling ability is also enormously important in today’s academic environment. For example, you need to learn how to “sell” your work to journal reviewers so your paper can be published, to granting agencies so you can get your work funded and recognized, and to the public so you can help your institution recruit high-quality students. All of these require good verbal/communication skills and familiarity with common cultural literacy and idiosyncrasy. These were very difficult for me as an international student coming from a different cultural background, but they can be improved over time and should never be overlooked.

Last but not least, gaining some teaching experience could put you at a more advantageous position when applying for faculty positions. Teaching is hard and it is something that needs to be learned slowly. One of my supervisors once told me, “Teaching is from the heart.” You need to invest time and effort into teaching and learn how to better communicate and interact with students outside of the classroom.”