

MAKING THE TRANSITION FROM STUDENT TO COLLEAGUE

By Dr. Joe Travis

Graduate study is the process through which you make a transition from student to colleague, from someone who defers to a faculty member's opinion to someone who changes a faculty member's opinion, from someone who learns from a faculty member to someone from whom a faculty member can learn. While this seems idealistic, it is what you should expect to happen through your graduate study because it is precisely what the faculty expects will happen. This is why we are all here.

But let's make this high-minded ideal tangible by focusing on three questions about this transition. What, precisely, is a colleague? How will you become one? What challenges lay in the path from student to colleague?

At the simplest level, a colleague has the passion for discovering knowledge, the enjoyment of sharing that discovery with others, and the ability to do both. We could expand upon this description and make a list of more specific attributes like natural curiosity, strong inner motivation and drive, refined work ethic, technical skill, and creativity. These are necessary qualities in a successful scientist. But a colleague is more; a colleague is a successful scientist whose intellectual companionship we value, whose ideas interest us, and whose critical ability commands our admiration and respect.

Lest you think that moving from student to colleague is an impossible task, remember that all colleagues begin as students. This tells you that this transition can be done. Even so, you may wonder if you can do it; we wouldn't have accepted you if we didn't think you could.

Whether you actually *will* is up to you. So how can you become a colleague? You begin by realizing that graduate study is not like undergraduate study. Undergraduate study is oriented toward the structured experience of classroom learning; graduate study is oriented toward an unstructured experience of engagement in scholarly activity. You will spend much less time in formal classes than in other activities and most of what you learn you will learn in those other activities.

What is this "scholarly activity?" It certainly includes the planning and executing of your own research. But there is much more. There are reading groups (also called discussion groups), weekly meetings in which participants discuss a research report that everyone has read. There are seminars, presentations of ideas and research results by scientists and students. There are opportunities to meet with a visiting seminar speaker, usually done through a sign-up list. There are field trips, sometimes organized for fun, oftentimes part of someone's active research and in both cases you will usually find yourself welcome to join. There are receptions for visiting speakers, which offer additional opportunities to chat with a visitor or to talk about science with other students or faculty members. There are regional, national, and international meetings that offer extraordinary opportunities to hear new results and meet many other scientists. There is "the library," which is the set of research papers, monographs, and books that are the products of scholarship. And there is a faculty here whose members enjoy talking about ideas, methods, and interpreting data.

You should engage in all of these activities. You should faithfully attend at least one reading group every semester and drop in on others, with permission, when they are discussing a paper of particular interest to you. You should attend as many seminars as you can, you should sign up to talk with visiting speakers in and outside your research area, you should join every field trip possible, you should regularly attend receptions, and you should read everything you can get your hands on, even papers that are not directly in your area of research. You should visit faculty members in their labs and talk about science with them. Why? Because this is how you expose yourself to ideas, critical opinions, approaches to research problems, and styles of science. At bottom, this is how you *make* the opportunity to learn something you might not otherwise have learned.

Having told you, in effect, to do everything, it is important to acknowledge that finding the appropriate balance of work and life is the big challenge on the path from student to colleague. The challenge is difficult for two reasons. First, because graduate study involves so many different activities, especially evening receptions and weekend field trips, it can be difficult to separate work from life. Second, unlike the undergraduate experience of a series of required classes and accumulated credit hours needed for graduation, there are few “mile markers” along this path. To be sure, there are annual committee meetings, annual progress reviews, and, for doctoral students, a qualifying examination. But those markers are few and far between. Moreover, there is always another reading group or graduate seminar in which you could participate; there is always another seminar you can attend. There are and always will be more that you could be reading. You must not succumb to the temptation to work all of the time. You must, however, learn to work efficiently. You will learn that you are capable of accomplishing more in less time than you ever thought possible. Like weight training or preparing for a long race, you will build up intellectual strength, stamina, and ability.

One way to learn how to be successful on this path is by observing others. But you must be careful: never compare yourself to someone at a far more advanced stage, lest you conclude, erroneously, that you will never be as strong a scientist or colleague as her/him. Find people who are doing well at similar stages to you in their careers and emulate their habits. When you compare yourself to people a year behind you and a year ahead of you, you can measure how far you have come and see how far you can strive to go in the immediate future. Then you can then assess whether your current habits have brought you far enough from where you were and are likely to take you where you ought to be in a year. Scientific meetings are excellent venues for assessing the trajectory of your development relative to students at other institutions. Of course it is important to find examples of older students and faculty who are where you would like to be. Ask these people how they got there and how they felt at your stage, but don't lose sight of your peers as a source of reflection on your progress as well.

Finally, remember that if you have passion for science, this is the path you want to follow. No matter which choice you make for a career, from academia to private enterprise to serving an organization like The Nature Conservancy, all job searches are searches for colleagues.