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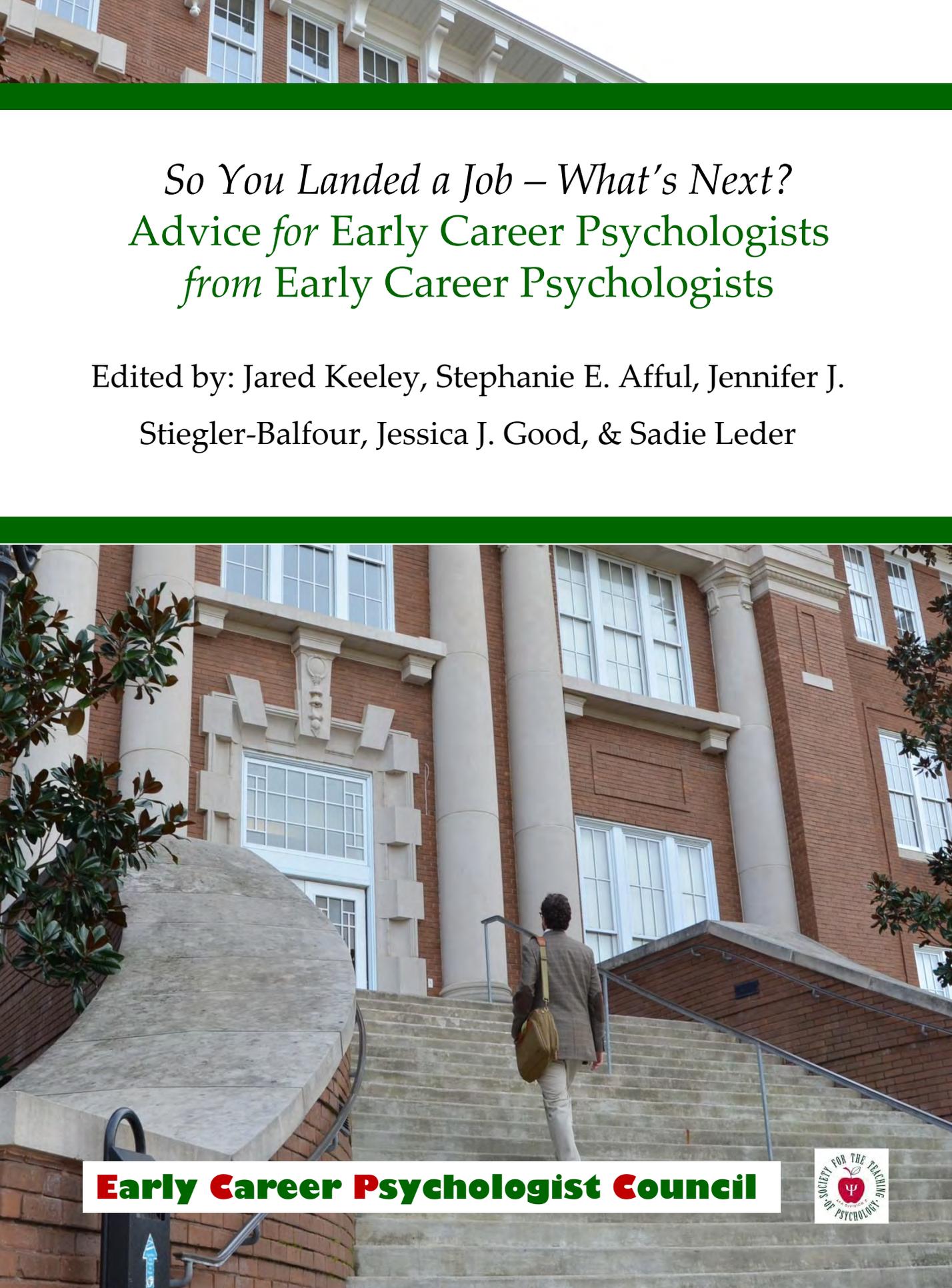
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Advice *for* Early Career Psychologists
from Early Career Psychologists

Edited by: Jared Keeley, Stephanie E. Afful, Jennifer J. Stiegler-Balfour, Jessica J. Good, & Sadie Leder

Early Career Psychologist Council

Chapter 4

Engaging Students in Collaborative Psychological Research at Liberal Arts Colleges and Universities

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Upon earning your first academic position, after counting your blessings, you'll be anxious to begin preparing for that first academic year. In addition to relocating, becoming acclimated to your new institution, and preparing course materials, you will also need to think about your program of scholarship. It is becoming more common for faculty at bachelors and masters-level colleges and universities to involve undergraduate students in their scholarship. At my institution, The College of New Jersey (TCNJ), faculty members are expected to engage students in their scholarship. Four years into my academic position, mentoring undergraduate students in faculty-student collaborative research has consistently been the most rewarding experience of my academic career. However, it also presents some unique challenges that I was not prepared for when I started my academic career.

In this chapter, I will not focus on strategies for establishing your research program (see Chapter 5 for such a discussion). Instead, my goal is to offer advice for mentoring lab students in the first years of your academic career. As a graduate student, you were unlikely concerned with developing a managerial style; however, faculty members are expected to not only oversee the students who will help implement their research program, but also to help them develop into young scholars. In this chapter, I will review student recruitment, lab structuring, student intellectual development, independent projects and student writing management, establishing and maintaining an enriching lab culture, and mentoring students (both lab students and assigned mentees) throughout their undergraduate careers and beyond.

Before I begin, I want to offer two important caveats to the advice that follows. First, my advice is based on my own experiences, which are unique to my own academic position, research program, and personality. I am one of twenty full-time faculty members (30:1 student-faculty ratio) in the Psychology Department of TCNJ, a small public liberal arts college with an enrollment of just over 6,000 students. TCNJ faculty members are guided by the teacher-scholar model, which involves integrating scholarship into course delivery. Thus, in addition to teaching responsibilities, we are expected to make impactful scholarly contributions to our respective fields, and involve students in that process. In my department, our lab students are enrolled in a collaborative learning course. This course is included in the students' course load; in an academic year, faculty members typically teach this course in their normal teaching load one semester, and outside their teaching load another semester. Much of my research on political attitudes involves embedding experimental manipulations within surveys distributed to online adult samples, which means I can collect data relatively quickly and cheaply, and without

relying on student participants from our departmental participant pool. Therefore, the advice I offer will not be relevant to everyone's experiences, and I encourage the reader to modify the following advice to fit his or her own unique circumstances. Second, by no means do I wish to imply that I had this all figured out when I began my position. I most certainly did not. This advice is based on both my successes and failures along the way.

Recruiting Undergraduate Students into Your Research Lab

If you are expected to conduct research at an undergraduate-level college or university, you will undoubtedly involve student collaborators in your research program. As a new faculty member, where do you find these students? Your first semester is a whirlwind, and it is unlikely you will be able to collect any data at that time. However, you will at least want to set up your laboratory space and begin recruiting interested students (see Chapter 5). At this point, you won't have the luxury of reputation and experience, so you should utilize both your colleagues and your courses as student recruitment resources. If you were hired to fill a hole in your department's curricular offerings, there will certainly be some students whose research interests were not being met before your arrival. Some of these students will take the initiative to approach you. Your colleagues, who have engaged with the student body for years, may know students interested in your area of expertise. Ask your colleagues for help identifying these motivated and interested students. They will appreciate your willingness to seek advice and your conscientious approach to lab student recruitment. Of course, another excellent recruitment source is the students enrolled in your classes. From methodology courses, you can identify students with a general interest in and aptitude for psychological research. From survey or upper-level courses directly related to your area of expertise, you can identify students who share your intellectual interests.

Regardless of your recruitment source, there are a few considerations to keep in mind as you select your students. First, recruitment is about quality not quantity, so avoid the temptation to stock your lab full of students. Determine the number of students you will need to operate your lab, and do not exceed that number. First, more lab students means more students to manage, more papers to grade, more individual meetings, etc. You will already have enough responsibilities—don't stretch yourself too thin. Second, your research program will likely start small, perhaps with some data to add to your dissertation studies, or piloting an exciting new line of research. If there are more students than there is work to go around, some may become frustrated by their lack of engagement in the lab's work. Consider increasing the size of your lab as your research program develops.

Second, students' grades in previous courses do matter, but they should not be the primary determinant for excluding or including students in your lab. Sometimes, hands-on involvement with psychology research can be the spark that ignites (or reignites) a wayward student's interest in psychology and motivates them in other areas of their academic life. This may especially be the case for first- and second-year students. Be more cautious about recruiting third- and fourth-year students with poor academic records, and ask your colleagues for their impression of these prospective research students. In a formal application, I ask prospective

students to list their reasons for considering my lab, relevant course experiences, career goals, and faculty recommenders.

Third, aim for student diversity, not just demographically (e.g., gender, ethnicity), but also experientially and intellectually. For example, for my research on political attitudes, having lab students with an assortment of social and political beliefs creates more animated and ultimately more creative discussions that might not have been possible in a more politically homogenous group. Finally, you will eagerly anticipate semesters when you have a lighter teaching load (e.g., course release, or the lighter semester of a 2:3 academic year teaching load). However, a diminished teaching load also means a smaller pool of potential lab students for the following semester. During one such semester, I made the mistake of accepting students I normally would not have accepted so that I could meet the 6-student minimum enrollment requirement. The following semester, I paid for this mistake in the poor quality of student work I received. To avoid these consequences, and the frenzied rush to fulfill your enrollment needs, begin student recruitment earlier than usual during semesters with a lighter teaching load.

Structuring Your Laboratory

As lab director, you need to devise a system that optimizes both your research productivity and the educational experience of your students. I find it easiest to have a lab hierarchy with explicit roles and responsibilities at each level. Appendix 1 presents the lab hierarchy I include in my lab course syllabus. There are four levels of student involvement, with specific duties and responsibilities, in ascending order: research volunteer, research assistant, administrator, and colleague. As a student ascends in the lab hierarchy, they take on increased responsibilities, but they also gain opportunities for one-on-one research collaboration and co-authorship. I don't always follow this hierarchy to the letter—for example, if a less-experienced student demonstrates high aptitude and interest, I might promote that student to a higher position. That said, this structure allows students to recognize both the opportunities the lab presents and my expectations for their advancement. I strongly discourage stagnation in the lab, and therefore limit students to only two semesters in which they can stay at the assistant level; beyond that, they must ascend to a higher position or make room for other interested students. This reminds students that I encourage their increased involvement, roots out students with waning interest, and ensures that I have a relatively steady influx of new and interested students.

What to Expect from Your Lab Students

Because students enroll in my lab just as they would any other course, they receive a syllabus at the beginning of the semester that delineates my expectations. The most important component of their grade is their involvement in lab research project(s). In a typical semester, we have a primary lab project involving all students, regardless of position in the lab. This is often a newly developed line of research, and we use lab meeting times to review the relevant literature, discuss research design, and evaluate stimuli and materials. All students are expected to be available for any necessary data collection sessions, and advanced students train less experienced students. Originally, I did not include the majority of students in the data analysis

and interpretation phases of the project, choosing to do that work independently or in collaboration with advanced students. However, I began to suspect that this led to student disengagement with our research questions. I therefore began performing and discussing analyses in real-time during lab meetings (which is possible in our smart classrooms with SPSS installed on computers). This has not only enhanced students' knowledge of data analytic procedures and interpretation, but increased their interest and engagement with our research now that they feel more included in the process.

In addition to this primary lab project, there are peripheral projects each semester on which I collaborate with more advanced students. These often involve data collection, analyses, or writing continued from a previous semester, and are especially well suited for advanced students who are familiar with the project and capable of more advanced data management and analysis. Sometimes a group of two or three students may work together on such a project, but with a typical enrollment of 6 – 8 students, my lab enrollment is usually low enough (and my backlog of data deep enough) that only one advanced student will be involved on each peripheral project.

The success of your research program depends on several people working together, which makes open and frequent communication essential. If a problem with data collection arises, I need to know about it immediately. Therefore, in addition to lab meeting times and data collection sessions, we use technology to remain in frequent communication. Students are expected to check their email at least once a day for communications from fellow lab members or me. When email communication is too slow, we phone or text each other. We maintain a website that is updated weekly and reflects input from all lab members. Finally, our online course instruction website at TCNJ allows students to contribute to a privately-accessed course blog. Students post weekly blog entries and follow the entries of their fellow lab members. We use these blog exchanges to supplement our lab meeting discussion—students use the time between lab meeting and their blog post to reflect on our lab meeting discussion and offer further insight into our research questions.

Students must also write a 10-15 page paper, which they present to the lab group at the last lab meeting of the semester. These papers and presentations may be relevant to either the primary or peripheral projects, and typically take three forms: a) literature reviews, b) proposals, for following up a project from the present semester, or c) reports of empirical results from an individual student's research project. Less experienced students typically provide a literature review or research proposal, while more experienced students will provide empirical reports. These presentations hone students' theory integration, research dissemination, and public speaking skills. I also invite students newly enrolled in the lab for the following semester to attend these presentations in order to meet our students, witness their accomplishments, and preview the following semester's projects.

Finally, each semester students develop or create something that will contribute to the lab into the future. These projects have included developing the lab website, developing the lab procedural manual, designing the lab logo, updating the website after a semester or two of

neglect, and designing our lab banner for the Lab Olympics (more on that to follow). These activities not only support the lab, but also provide excellent team-building exercises for lab members.

What to Teach Your Lab Students

Although one goal of conducting student-faculty research is to advance your scholarship, the other primary goal is to mold your students into young scholars. I strive to guide all of my lab students through the entire research process. In fact, this is the purpose of the primary project: to let students experience each step of that process. At the beginning of the semester, we spend several weeks reviewing the relevant literature and developing hypotheses related to this project. I first assign a set of readings, but then ask each student to lead a discussion of an additional relevant reading of their choice. Selecting the article and leading a discussion of its implications for our project encourages them to think more deeply and independently about the topic. Don't be surprised if your original idea changes based on student input—I am always impressed by their ability to challenge my initial thinking and ultimately shape and refine the hypotheses.

After formulating our hypotheses, we review design considerations specific to our project. Most of my research embeds experimental manipulations within online surveys, which advanced students create using online survey software (Qualtrics). After the survey is created, all students test and critique the survey on their own time, and we review and refine the instrument through extensive lab meeting discussions and exchanges on the lab blog. If we are collecting data in the lab, students dry-run the research protocol together in teams to ensure that all instruction sets are clear and that all instruments are operational. Again, I rely on a team of more experienced students to train students in the research protocol. Usually, a student will volunteer to assist me with the submission of the IRB protocol.

We usually collect data by posting a link to our survey online to Amazon.com's Mechanical Turk (an online labor market where researchers can recruit participants to complete surveys for compensation). However, if we are collecting data in the lab, students manage data collection: they schedule research assistants, manage the participant pool, assign participant credit, and oversee data collection sessions. Students do not enter data into SPSS because Qualtrics records and inputs the data into an SPSS file. There are of course considerations to managing student data entry, but I encourage you to lobby your administrators for access to Qualtrics or other survey software, as it saves a tremendous amount of time (a new faculty member's most valuable commodity) and allows students to focus more on substantive work and less on mind-numbing data entry.

Data analysis proceeds in two stages: 1) data management and preliminary analyses, and 2) primary analyses and interpretation. Usually I select an initial team for the first stage. With less experienced students, I meet to review how to manage a data file (e.g., create measures, code for experimental conditions) and run preliminary analyses (e.g., reliability analyses, factor analyses, correlations, examining means, testing manipulation checks). More experienced

students will complete those tasks themselves and then meet with me to review their work. I then take this workable database to our next lab meeting, review the hypotheses and appropriate statistical analyses with the lab group, and perform the analyses and interpret the results with them. We will then generate alternative hypotheses and test them, all during lab meetings. This activity serves multiple purposes for the students: as a general statistics refresher, as a window into the data interpretation process, and (if the data behave) a glimpse into the excitement of scientific discovery. We will then develop a plan for our next step (e.g., more data collection? Crowning jewel in a *Journal of Personality and Social Psychology* paper? A dead end?) over the next few weeks.

Analyzing and interpreting data with the lab group strikes a good balance between busywork (finding measures, creating instruments, collecting data) and substantive work (engagement in hypothesis development, hands-on data management, data analysis and interpretation). As lab director, explaining complex theory, methodology, and statistics to your lab students not only improves your teaching abilities, but also likely your own understanding of these essential topics. Moreover, these faculty-student discussions will generate new and interesting ideas. Intellectually and personally, these interactions with my students are some of the most rewarding aspects of my academic career.

Overseeing Independent Studies and Senior Honors Theses

As a new faculty member, students seeking to complete an independent study or senior project under your direction may flatter you. Exercise caution—after agreeing to oversee three senior-level projects in the Spring of my first year, I found myself stretched too thin. At TCNJ, independent studies and honors theses are considered outside of the lab course enrollment. Therefore, directing these individual studies will necessarily increase the number of students you mentor in any given semester. That said, I strongly encourage mentoring your advanced lab students through individual independent study projects or honors theses. These are of course enriching experiences for your student, but they also enrich your scholarship and the experience of other lab members. Although these students are not enrolled in the lab course, they are required to attend lab meetings and contribute to the primary research project. However, this arrangement is mutually beneficial, as the other lab members also contribute to the student's independent study or honors thesis.

There are a few considerations to keep in mind when deciding on a project topic and actively mentoring your student. First, choose a topic that will advance your scholarship, not one that the student has generated. This advice may seem harsh, but as a non-tenured faculty member, your priority is to advance your research program in order to gain tenure. While you should encourage your student to contribute as much as possible to hypothesis development, do not get trapped in a research project outside your area of expertise. In my first year, I opened up numerous lines of research to accommodate the interests of students. It took me three years to get through the backlog of data it created, and all but one of those projects ended up buried in my data cemetery. Now, depending on my research program goals, I either assign a student a particular project (usually an extension of an existing project), or give a student the choice of

two or three potential projects (usually new projects I am interested in starting). So, first tie up loose ends from graduate school, such as that additional experiment you need to make your dissertation publishable, before opening a new student-generated line of research.

Second, observe how other faculty members manage student research projects. Without prior knowledge, it is hard to know what constitutes a strong student paper, or what to expect from a senior honors thesis student. There are several things you can do to learn from your colleagues, such as volunteering to serve on honors thesis committees, organizing a best practices meeting on overseeing student research projects, or asking colleagues to share their former students' thesis papers. Third, in managing your students' progress, provide them the organization and structure they will need through weekly meetings, weekly assignments, weekly blog entries, explicit deadlines, and frequent email communication.

Finally, do not try to clone yourself. When you work with a highly competent and motivated student, it is tempting to mold that student in your academic image. Resist this temptation. First, in all likelihood, your students will not become professors, and this highly competent student completing an honors thesis is no exception. Listen to your students, encourage them to follow the career path of their interest, and prepare them for it. If a student does express interest in a research career, ensure that he or she has not prematurely foreclosed on this choice. I have seen several students decide on an academic career as first or second-year students only to change their minds midstream and struggle with the transition to an alternative path. Encourage them to explore their options and research experiences with other faculty members (Silvia, Delaney, & Marcovitch, 2009).

Writing with Student Co-Authors

If you have worked with a student or group of students on a research project that is publishable, you should consider co-authoring the manuscript with those students. For the student, this of course is an enriching experience that will improve their writing skills and bolster their chances of admission to graduate programs. There are also benefits for you as well, because working through the writing process with a student can make you a more conscientious writer. Moreover, depending on your institution's values, co-authoring papers with students should reflect well on you as you apply for reappointment and promotion.

One of the first issues you will face is determining student authorship. How does a student earn authorship? When should a student earn lead authorship? Authorship conversations become more important as your career advances. In my first few years, students had no expectations of authorship because I had no previous student co-authors. Now that several students have co-authored papers with me, it is more important to explicitly state what constitutes authorship. If a student has assisted in developing the original hypotheses, or in overseeing data collection and management on a major project, I will offer them authorship, even if they end up doing only minimal writing and draft reviews. Of course, you may identify promising students who want more writing experience. For these students, I ask them to draft short sections of the manuscript (e.g., the Method), search the literature for articles to support a particular

argument, create the references section, format tables and figures, and read and make comments on my drafts. I find it useful to provide these students with several example articles (from our lab and from others) to use as models. Once we have a draft, we will read the paper aloud together, line by line. This is especially useful for student writing development because I can explain to the student my decision-making for the organization of the paper, sentence structure, language use, etc. As a writer, these line by line discussions help clarify your own thinking and avoid the inevitable glossy eyes from staring at the computer screen.

In all likelihood, the manuscript is intellectually driven primarily by you and not your students. Moreover, it is unlikely that your students possess the ability to craft a scholarly paper themselves. It is therefore more likely that you will be lead author. In this early phase of your career, lead authorship is especially important; later in your career, you can allow students to take lead authorship at your discretion. Of course, if your institution places more value on papers with student lead authors, you may decide to take a backseat to a student co-author. Whatever you decide, manage expectations by discussing authorship at the beginning of the research project. This is especially important for independent study and honors thesis projects, for which students' authorship expectations are likely higher than on group projects, such as the primary lab research project. If the paper is a product of a student's senior project or thesis, and this student wants and deserves lead authorship, make sure the student is aware that he or she must continue writing post-graduation.

I should note that one down side to including student co-authors on your manuscript is that it slows down the writing process, as you must essentially teach and write simultaneously. If you are in publish or perish mode, it may be better to write alone and wait until you are in a more comfortable position to include student writing collaborators.

Establishing a Lab Culture

Students enroll in your lab to learn the content of your research area, to learn about the research process, and to gain skills necessary for their careers. However, it is important to keep in mind that they will likely not follow you into academia—the vast majority of your students will go onto other non-research related careers. So, how can you create an enriching and enjoyable educational experience for students with diverse career trajectories? The answers to this question will depend on your temperament, the nature of your research, and the students enrolled in your lab. For me, the most important goal is to create a cohesive group of students, which I feel builds mutual respect and understanding, and ultimately a positive and enriching undergraduate experience.

Creating such cohesion is easier to accomplish in some labs than others. In the lab I worked in as an undergraduate, we established relationships by spending countless hours together in the lab collecting and processing data. Given that we do little data collection from student participants in my current lab, my students do not have these opportunities. So, we have to create them. Our weekly lab meetings are conducted in a relaxed manner, and students are comfortable expressing their ideas and interacting with each other. Outside of weekly lab

meetings, smaller units of students work together on either portions of the primary project, or in collaboration on peripheral projects. Each year, several lab members attend our annual regional conference (the Eastern Psychological Association conference) together. More recently, students have begun working together to develop research proposals for their final paper and presentation. Finally, at the end of each semester, I present a summary of that semester's accomplishments, and preview our plans for the following semester. Doing so not only allows students to take a step back and recognize just how much they (and we) accomplished, but also allows us to acknowledge individual student accomplishments, such as having a paper accepted for publication or successfully completing a senior honors thesis.

On the lighter side, I invite my students to an end-of-the-semester party at my home (homemade pizzas and ice cream sundaes in the Fall; barbeque and canoe rides in the Spring). These parties serve as a way to celebrate our individual and group accomplishments, and in the Spring, as a celebration of our graduating seniors. Also, each Spring, our department holds the Interlab Olympics. This event entails a series of intellectual (psychology Jeopardy) and physical (water balloon toss) challenges in which multiple labs in the department compete against each other for title of Lab Olympic Champion. This is a good-natured competition that the students (and faculty) really enjoy. Although our lab has yet to win this event, we did win "Best Banner", which the lab members created using fabric from their own clothes!

Advising Lab Students for their Post-Graduation Plans

Your role as a faculty mentor also includes advising students in their career choices, and preparing them for their careers. Obviously, their faculty-student collaborative research experience will make them competitive for jobs and graduate school admissions. However, there are other ways that you will be expected to assist your students in their post-graduation plans. Perhaps the most obvious is writing your students' letters of recommendation. When I began my career, I knew little about what constitutes a good letter of recommendation. Ask to see letters that your colleagues have written for former students, or ask colleagues to review drafts of your letters. Require that students provide a recommendation packet with materials that will allow you to craft the strongest possible letter: self-addressed stamped envelopes attached to any necessary application materials, their vita or resume, a list of schools to which they are applying (with deadlines), a description of why they are applying to each school, and a description of their career goals. I typically ask that students provide this information to me at least four weeks in advance of the first deadline.

Most often, students who have worked closely with you, and of whom you think highly, will ask for letters of recommendation. However, you may find yourself in the unenviable position of having a student you don't know very well, or even an underachieving student, ask for a letter of recommendation. I do not refuse to write the letter for the student, because I know that sometimes students need a minimum amount of recommendation letters. Instead, I tell the student that I am willing to write the letter, but that the letter will not be particularly strong, and that they should consider an alternative letter-writer. After a frank discussion, if they still insist, I will write this student's letters of recommendation, however unenthusiastically.

If your student has decided to attend graduate school, you should help them choose the best degree (e.g., MA vs. PhD) and institutional match for their career goals and intellectual interests. Students often use the institutions' undergraduate education reputation as a heuristic for making graduate school application decisions—for example, considering Harvard University a "reach" school, and their large state university a "safety" school. Educate your student on the considerations specific to graduate education, such as selecting an institution based on the student's shared interest with a prospective faculty mentor. Show them how to select prospective faculty mentors by perusing journal articles, journal editorial boards, and society websites. Encourage students to learn about these programs by visiting their websites and emailing prospective faculty and their current graduate students for information about student openings and graduate student life, respectively. Encourage students to apply widely and not limit themselves geographically (a problem I often see at my small state college).

Keeping in Touch Post-Graduation

Eventually, your students graduate. This is a bittersweet moment. While you will surely be excited for your students as they continue their education or begin their careers, there is a strong chance that you will miss these students, especially those in your first "class" of lab students. Stay in touch. For them, they will continue to feel connected to what was an important and transitional time in their lives. Knowing how their lives and careers have progressed also makes it easier for you to write strong letters of recommendation for these students in the future. For you, being able to write about the continued accomplishments of your students in your reappointment and promotion materials reflects your deep commitment to student development. It also sets a good example for your current students, both for their expectations for you and of themselves.

There are some very easy ways to remain in touch with former students. Social networking sites like LinkedIn allow people to stay in touch with professional colleagues. I've created a Facebook page for our lab, which allows both former and current lab members to remain in touch and share information with each other. Old-school networking at professional conferences is a great way to reconnect both socially and professionally with students who have gone on to graduate or professional school. Furthermore, current students who attend these conferences with you will enjoy meeting or reconnecting with these former students, an experience that will reinforce your lab mentorship model. Finally, do not underestimate how often your students might return to the area for college-wide, department-wide, or other extracurricular events (e.g., athletic competitions; homecoming). You may even invite these former students to speak to your current lab group about their experiences, or extend open invitations for lab alumni to attend your end-of-the-semester party.

When Problems Arise

Things won't always go smoothly—a student may be disregarding his or her lab schedule, not performing adequately, or causing interpersonal problems or other disruptions in the lab. Remember that you are the instructor, and you are ultimately responsible for ensuring the optimal learning environment for all students. Nip these problems in the bud as soon as

possible by communicating your concerns privately to this student. Explain why you are concerned about his or her performance. Perhaps there is a personal issue that the student is struggling with—you may be comfortable discussing these issues with the student, or you may encourage them to seek the counseling services that your college or university offers. Perhaps the student is struggling to manage his or her busy schedule—you may simply need to set firm deadlines for this student and maintain more frequent communication. Hopefully just having this conversation, and agreeing on a plan for moving forward, will remedy the problem. If the problem persists however, you may need to consider some alternatives. The culture at TCNJ is such that as long as students' performance is satisfactory, students earn As for the lab course, and students are generally aware of this policy. Therefore, the prospect of decreasing a student's grade could serve as a deterrent. As a last resort, you may even consider involuntarily withdrawing the student from your lab. If the problems occur primarily at the end of the semester, do not invite the student back—explain to the student that you had already discussed concerns with their performance, which did not improve. You do not want the lab culture you've established, not to mention the quality of your data, to suffer because of an individual student's behavior.

General Advising Considerations

So far, I have focused this discussion on mentoring students in the context of student-faculty research collaboration. Of course, you will likely have other advising responsibilities, including the assignment of several official advisees enrolled as Psychology majors. The number of official advisees you will mentor is likely determined by your department's student-faculty ratio. For me, I have about 30 official advisees in any given year. For my first-year advisees, my primary goals are to support them through the sometimes difficult transition from high school to college, and to make sure that they are taking the fundamental psychology courses. It is always a good idea to ask that students arrive to your advising meeting with their tentative schedules prepared, as well as some alternative courses. For second-year students, we begin to discuss tailoring their academic schedule to their career goals. When they enter college, psychology majors often believe that they will become therapists—of course, as they expand their knowledge of psychology in their first and second years, they begin to understand the variety of careers that a psychology degree offers. We discuss which courses best fit their interests, and considering the strong undergraduate research culture in our department, which lab they might consider joining.

For third-year students, it is important to revisit their academic requirements to ensure that they are on track for graduation at the halfway mark of their undergraduate careers. This is also the time that they begin taking our more specialized seminar courses, and focus more intently on their future career plans. In our advising meetings, we talk about research lab involvement, internships, study-abroad, and other experiential learning that will improve their chances of employment or graduate admissions following graduation. For fourth-year students, we ensure that students have enough credits to graduate, and discuss job prospects or the graduate school application process.

Our department is unique in that we have recently implemented an advising course sequence in which all students enroll. For half of a semester each year, students take an advising course. These courses typically have 30 students enrolled in each section, and are taught by either faculty members or administrative staff. First-year students are introduced to the major and learn about their academic requirements and how to register for classes. Beyond the first year, students attend a variety of information sessions on topics including but not limited to choosing a career, seeking an internship, applying to graduate school, and job interviews. This advising course sequence has reduced our individual advising responsibilities tremendously, as most students have selected their courses prior to our formal advising meeting, and have received career guidance from these information sessions. Even if your college or university does not have such an advising program, you may consider coordinating with your Psi Chi chapter, other faculty members, and your institution's career services office to schedule such events and advertise them to interested students.

Conclusion: The Joy of Mentoring

In this chapter, I have highlighted some of the challenges you will face as a mentor to students in faculty-student collaborative research. I would like to conclude however by noting that mentoring these students is without a doubt the most rewarding aspect of my academic life. Juggling teaching, scholarship, service, and your personal life presents a daunting challenge to any junior faculty member. During your pre-tenure years, one or several of those aspects of your life will frustrate you and even leave you doubting your career choice. The pleasure I take in watching these students develop, establishing relationships with them, making scientific discoveries with them, and encouraging their personal and intellectual growth, provides an escape from the challenges of an academic career. I may have once dreamed of a position at a research university while in graduate school, but it likely would not have provided me the opportunity to engage with young people like I can at a small undergraduate-focused institution. As you begin your career as a research mentor, I encourage you to create a lab community that is productive and both personally and professionally fulfilling.

Appendix 1

Example of a Research Laboratory Hierarchy

Lab Director: Professor
Colleague:
- Usually reserved for students enrolled in senior level lab course
- Manages operations of own research project (e.g., training & scheduling RAs; interfacing with participant pool, maintaining files and paperwork)
- Proficient in higher-order data analyses (e.g., multi-factor ANOVAs; hierarchical multiple regression).
- Demonstrates proficiency in scientific writing; co-authors manuscripts for peer review.
Administrator Positions (must demonstrate proficiency at Assistant rank):
  Lab Manager:

- Manages operations of research projects not overseen by Colleague
- Assigns roles to Assistants and Volunteers
- Creates agenda for lab meetings
- Take lab meeting minutes
- Makes sure all lab materials are available and replenished at all times.

Webmaster:
- Proficient in web design
- Weekly communication with lab director to promptly update lab website
- Conducts research for links and other resources to post to website

Outreach Coordinator:
- Recruits new members to the lab through flyers, presentations, etc.
- Publicizes lab achievements around campus
- Updates lab application and other means of recruitment

Assistant (currently or previously enrolled in 300-level lab course):
- Must attend lab meetings
- Must promptly complete mandatory assignments
- Must competently run individual data collection sessions
- If prior lab involvement, must train and mentor new members
- Must be familiar with: creating surveys via Qualtrics; managing participant pool; conducting basic statistical analyses (e.g., descriptive statistics; correlations, t-tests, one-way ANOVAs) in SPSS
- Must make novel contributions to lab discussion

Volunteer:
- Must enroll in 300-level lab course to advance in rank
- Is encouraged to attend and participate in regular lab meetings and assist in data collection

Reference

Silvia, P. J., Delaney, P. F. & Marcovitch, S. (2009). *What psychology majors could (and should) be doing: An information guide to research experience and professional skills*. Washington, DC: American Psychological Association.