Expectations of Ph.D. Students

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Introduction

This document is intended to give current and potential graduate students an overview of my general expectations of students in the Child Psychology PhD program at the University of Minnesota, and to inform students of what they can expect from me as an advisor/mentor.

As a graduate student, you will be spending the next several years immersed in research. During this time, you will learn how to formulate research questions, develop the technical and analytical skills to address those questions, and learn to communicate your results to a wide range of audiences. To achieve these goals, you will be expected to learn with much greater independence than you have in the past. You will do significant background reading on your research topics, enhancing your understanding of both the broad field of study and the specific technical and analytical aspects of your research projects. You will develop and implement experimental procedures and protocols to investigate your topic in the laboratory, and you will conduct appropriate statistical analyses to interpret your experimental results. Inherent in this independence are the requirements that you must be able to learn and adapt; be willing to do what is required to complete the research; and demonstrate initiative, scientific rigor, and self-motivation.

It takes hard work to earn a graduate degree. Your life will revolve around your research and studies. Every PhD student in our program is required to spend a minimum of 20 hours per week on research while juggling other responsibilities, including coursework, assistantships, teaching, clinical practica, service on committees, and engagement in the department, University and field. In reality, successful PhD students devote much more than the minimum number of hours to their graduate training. Ideally, research activities will occupy the largest share of these hours.

Graduate school is time intensive, intellectually demanding, and will often challenge you to go beyond your current level of performance and comfort. It can and should be one of the best experiences of your life. You will have opportunities available to you that are not available in any other setting; you will make lifelong friends and colleagues who understand your passion and drive for developmental science, and who will struggle side by side with you during your graduate career; and you will discover, if you have not already, that you can succeed at almost anything if you are committed and motivated.

Philosophy of Advising Graduate Students

My main goal in supervising graduate students is to prepare you to be an independent thinker, who is capable of formulating research questions; to be technically capable, so you can develop and implement research plans to address those questions; and to be an effective communicator in disseminating your research ideas and results to the scientific community and general public. I will act as a mentor, collaborator and, when appropriate, as an advocate. In return, I expect you to work hard, show continual progress in your research, and strive for excellence. My management style is hands-on. Whenever possible, I spend time in my laboratory working side-by-side with students, and meet regularly with students in multiple contexts. However, my laboratory is also a place to pursue independent research ideas. I am happy to support student-led research initiatives. Inherent in such independent research is the expectation that you must be self-motivated; diligent and conscientious; and proactively initiate and carry out your research.

A critical feature of any successful mentoring relationship is honest and respectful communication. My goal is to develop a collegial relationship with my students, providing training and guidance as needed, while discussing and developing ideas and interests as collaborative colleagues. I will do my very best to promote your goals and interests, but cannot do that unless you trust me enough to share them with me. I will work hard to earn such trust by communicating honestly and respectfully. Honest communication includes constructive criticism and opportunities for growth. I expect that students will welcome respectful, constructive criticism, and hope that students will communicate honestly about the forms of mentoring that they find most helpful in supporting their professional and career development. Faculty members are not perfect, and I hope students will feel empowered to communicate directly with me if I am not meeting your expectations or mentoring needs.

In my laboratory, a Ph.D. thesis or dissertation reflects original and independent research that advances the field being studied, and demonstrates the student's depth of knowledge in a particular domain. The most successful PhD students in my laboratory will have at least 2-3 published peer-reviewed articles by the time of the final defense, with additional papers in the pipeline. I expect that dissertation research will be conceived, performed, and reported by the student, with my mentorship and support.

Authorship in our laboratory is determined by effort and contribution to projects. Students should expect to contribute to design and evaluation of study goals and procedures, data analysis, and data interpretation, and/or manuscript writing in order to earn authorship. Students should expect to be first author on papers resulting from their thesis research and other independent projects, as well as papers for which they do the majority of the writing. However, projects are dynamic, and authorship may change as the projects change. The majority of work in our laboratory is collaborative, and in such cases, authorship is not as clearly delineated. Students should be discussing authorship throughout the project and clarifying their expected position on individual papers based on their contributions to the work.

Although some students find that their research interests and training goals are met entirely within my laboratory, others decide that collaborative advising or mentoring from additional faculty members is a more attractive and beneficial approach. I am happy to have students with secondary research mentors and/or collaborators outside of my lab. I am also willing to serve as a secondary

mentor or a research collaborator for students in other labs. However, it is essential that I have open communication and conversation about all of the research that students are doing to ensure that I have reasonable expectations for progress and that students stay on a positive trajectory for career development.

Expectations of Graduate Students

I expect 100% effort from my students, as well as confidence in their own abilities. I believe that we learn as much from failed attempts as from our successful research; therefore, I expect a willingness to pursue new ideas without fear of failure, and an acceptance of the fact that all real scientists will experience failed studies and non-significant results multiple times throughout their careers. Perseverance and confidence in one's own ideas and abilities are critical traits for all researchers to foster, especially graduate students new to the field.

You are responsible for managing and conducting your research with the highest ethical standards. I expect (and demand) ethical conduct in your research, your academic pursuits, and your interactions with fellow students, faculty, and department and laboratory staff. Examples of unethical behavior include violation of human subjects protections, plagiarism, cheating on coursework, fabrication of experimental data, taking or giving credit that is not earned, and disrespectful, discriminatory or harassing behavior towards others. Unethical behavior will have significant consequences and may include, loss of authorship on publications, loss of research assistantship or research funding, loss of access to laboratory resources (including equipment, supplies, and personnel), or dismissal from my laboratory. If you have any questions related to ethics, you should discuss them with me rather than working in ignorance or waiting to see what happens.

I hold weekly research group meetings, and all students working in my laboratory are expected to attend lab meetings, participate in discussion, and to take turns presenting their research or leading discussion of current research literature. This is an excellent forum for gaining depth of knowledge in our sub specialties, as well as experience in presenting your research and obtaining feedback from your peers and lab mates. I also commit to meeting one-on-one with each of my students weekly or bi-weekly to discuss their research progress and to set short term and long term goals. Advanced students may choose to meet less frequently, assuming continuing evidence of productivity.

Research in our laboratory involves vulnerable populations (i.e., children and adolescents) and technical and potentially dangerous research techniques (e.g., magnetic resonance imaging). Safety and protection of human subjects is always the top priority in our group. Our research participants are generous with their time and effort, and deserve to be treated with respect and dignity. The first priority in any study must be participant safety and satisfaction. Laboratory rules regarding consent and assent procedures, MRI safety, and safety of minors are absolute. Improvements on these protections are always welcome, but must be approved by me before being implemented in any study in my laboratory.

Each student is responsible for documenting all research materials and procedures; maintaining organized and complete study files; following all IRB and University requirements regarding research data collection and storage; organizing version tracking on all study-related electronic files; and documenting and annotating the selection of analysis

methods/tools used in order to allow for appropriate replication. All data collected at the University of Minnesota belong to the University. When you receive your degree and/or leave the University, you must leave a copy of ***all*** study materials behind, and I must have sufficient documentation to adequately proctor access to the data, paper files, and/or analyses from projects affiliated with my laboratory.

I expect all Ph.D. students to write and submit applications for fellowship funding (e.g., National Science Foundation, University of Minnesota fellowships, etc.) whenever available. Fellowship funding provides greater stipend support for students, allows students to devote more time to research relative to other activities, and may free up grant funds to support other needs in the laboratory or other students in the program. Fellowship applications provide an excellent training opportunity in developing and writing research proposals, and demonstrate to potential employers that you have the ability to develop and formulate research ideas, as well as compete with your peers. Fellowship funding is highly competitive, so I have no expectation that all students must be funded by fellowships, but can guarantee that students who do not apply will never receive fellowship funding.

Our program is designed to prepare students for careers in research and teaching. However, only the student can determine their desired career goal. I am happy to support students in pursuing and achieving their professional goals in developmental science, whatever those goals may be. However, I cannot help you achieve your goal if you are not honest with me. I prefer to work with my students to determine an individual plan for training to meet their unique career objectives.

Finally, graduate school is demanding and can generate many opportunities for comparison to one's peers. My laboratory cultivates a culture of support of fellow lab members, celebration of individual and group accomplishments, and promotion of collaborative research. We actively avoid situations that may promote competition among students within our laboratory, for resources, for space, for my time, for funding. If you are someone who thrives on direct competition and feels motivated by proving yourself above others, you will probably not be satisfied in my laboratory.

Expectations for Graduate Advising

As a graduate advisor, students should expect me to:

1. Take a personal interest in each student's education, including career goals, areas of interest, and abilities.
2. Challenge each student to achieve.
3. Encourage independent thought and action, and acknowledge that research failures are not personal failures.
4. Provide feedback on progress, and critique written and oral presentations.
5. Provide critical and constructive feedback of student work and ideas, through one-on-one meetings and group consultation at laboratory meetings.
6. Provide insights and training on the inner workings of our field - extant literature, current trends, funding mechanisms, manuscript review, and publication.

7. Work with students to secure financial support, including stipend, research funds, and travel to a variety of workshops and scientific meetings. Help in preparation of fellowship and grant applications.
8. Help students find a balance among research, classes, teaching, clinical practice, and service.
9. Help students navigate the profession, including helping students connect with colleagues in the field.
10. Provide a collegial and productive work environment where students have access to key equipment, tools, assistance and consultation to complete their work.
11. Help navigate departmental and university requirements, such as progress through the program requirements and selection of thesis committee members.