

AC 2007-1392: UNDERSTANDING GRADUATE SCHOOL

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UNDERSTANDING GRADUATE SCHOOL

Abstract

Graduate school is a significantly different world from undergraduate study. It is also drastically different from the “real world.” One of the main complexities associated with being a graduate student is understanding and meeting expectations. These include your personal expectations, expectations of your advisor, other faculty, your department, the school, other students and future employers. This paper provides a student's perspective on being in graduate school. It discusses the development a student goes through as they journey through graduate school and focuses on the transition from being a follower to being a leader. This paper has two main goals: 1) to remind faculty of their own graduate experiences and encourage them to better know and understand their students and 2) provide students with guidance about what to expect and how to succeed. Ideas about dealing with the pressures of graduate school, making life choices, independence, responsibility, networking and growth are also presented.

1.0 Introduction

What is graduate school? “Graduate school or ‘grad school’ is a school that awards advanced degrees¹.” Okay, but really what is graduate school? This paper provides a student's perspective on being in graduate school. It aims to dispose of mythical thoughts of graduate school and provide a true look at what being in graduate school means. Graduate school is a significantly different world from undergraduate study and it is drastically different from the “real world.” Graduate school is a place where students are transformed into leaders, professors, researchers and much more. Graduate school is not for the weak. It can be a very trying place, but it can also be a very rewarding place.

The intention of this paper is not to promote or denounce graduate school. This paper has two main goals: 1) to remind faculty of their own graduate experiences and encourage them to better know and understand their students and 2) provide students with guidance about what to expect and how to succeed.

The remainder of the paper is organized as follows. Section 2 discusses the journey through graduate school; from getting to graduate school, to getting done. This section aims to break up the time a student spends into different developmental stages. Section 3 is aimed at students who are either in graduate school or are considering graduate school. This section discusses some of the difficulties graduate students will face and provide support and guidance to help the students deal with these difficulties. Section 4 is aimed at advisors and other faculty. This section asks faculty to remember being a graduate student and think about their experiences. Section 5 provides a summary and thoughts about the future.

2.0 The Journey

This section discusses the journey a student takes through graduate school. The journey has been broken down into several stages: 1) Getting There, 2) First Year Experiences, 3) Second Year Experiences, 4) 3rd, 4th, 5th, etc. Year Experiences, and 5) Getting Out. These are the development stages a student goes through as they journey through graduate school and focuses on the transition from being a follower to being a leader.

Stage 1. Getting There

Graduate school starts before you get there. Students may not realize it at the time, but their first assignment is to make the decision to go. This is not an easy task. Graduate school is not for every one and many graduate students do not find that out until after they start. Not every graduate student leaves with a degree. There are many different reasons why one may choose to go to graduate school, not every successful graduate student has the same reason. If the reason for attending graduate school is strong enough, then graduate school is a good choice.

Once a decision has been made to attend graduate school, the assignment of choosing a school, advisor and area of research is handed out. This should be treated as the toughest assignment of the graduate career, because these decisions it can and will have an influence on you for the rest of your life. Making a poor decision at this point can cost a lot of time and personal suffering, while making a good decision can be well rewarded. This does not mean these decisions are permanent and cannot be changed it just means that the changes will come at some cost (be it time, money, personal anguish, etc.)

There are three main components to focus on when choosing or counseling someone about choosing a graduate school. They are research, the school and an advisor. Everyone is different and these choices need to be made based on the student's individual interests and preferences. Not everyone enjoys the same environments, has the same motivations or works well in the same conditions.

Research is a critical component of graduate school. Defining what area of research is of interest is typically a difficult thing for graduate students. Incoming graduate students do not necessarily know what research areas exist. Before make any decisions about which area of research to pursue students should talk to faculty and other graduate students to help increase their knowledge of various areas of study. Incoming graduate students should also read a variety of research papers (journal articles, dissertations, etc.). Even if the student does not understand all the content in the papers, they will be able to identify which problems they are most interested in and those that they had less interest in.

The school is an important choice because it defines the graduate students living environment. The size, location and personality of the school should all be considered before choosing a school. Research programs also vary from school to school. Some programs are more competitive than others, some focus on heavily on theory, others focus more on application driven research. Some research programs are team-oriented, while others concentrate on individual projects. Students need to be sure to consider each of these things when choosing their new school.

Choosing an advisor might be the most difficult of the decisions. This is because the information incoming students have about advisors is limited to research papers, brief interactions, and the opinions of others'. With this limited information, students are supposed to determine who will advise and mentor them through their graduate study and the rest of their career. A student needs to trust, respect and understand their advisor. Because an advisor is such a critical component of graduate school, incoming students should try to learn as much as they can about their various choices. Students should talk to former and current students of prospective advisors; ask questions about teaching style, availability, advising habits and research interests. This should not be a blind decision.

For Incoming and Current Students

For incoming students please take choosing a school, advisor, and research area very seriously. Make sure you make these decisions based on your preferences and interests. Don't allow friends, family or faculty members to influence you into making the wrong choice. Choose the research you are most interested in, the advisor you feel you will work best with and the school and program that suits you best. Remember you are the one signing up for graduate school.

For students in graduate school if you figure out you made the wrong choice, admit it and try to correct it at the earliest possible point. There is no value in doing something you are disinterested in, because you will not perform well and you will be miserable. If you are in this position, it will be in your best interest to admit you made the wrong decision and get out of it as soon as possible.

For Advisors and Faculty

When advising undergraduates interested in graduate school, be sure to give them lots of information and references. Many of these students have limited information about the opportunities that are available to them and would benefit from a wide variety of information. There is a lot of valuable literature on graduate study, what it is, admission processes, funding opportunities and career choices available²⁻⁶. In addition to providing literature references, take the time to explain or outline various areas of research, point out differences between schools and research programs, and provide suggestions about potential advisors. You may not know what the right choices are for each student, but by providing information you might be able to help them figure out what the right choice is. Having been through graduate school already, think about the things you wish you knew before you went; try sharing some of that information with your students.

Stage 2. First Year Experiences

The first year graduate student might better be referred to as the lost student. Most graduate students spend the entire first year of graduate school trying to figure out where they are, where they should be and what they should be doing. If they are lucky by their second year they might have a clue.

The first year of graduate school is a year of new experiences. Most familiar to the students will be classes. They will continue to build their skills and toolsets taking several classes each semester. Research will be the most unfamiliar territory for the new graduate

students. First year students generally have little or no research experience. Typically the students will be assigned to a research project by their advisor. Depending on the advisor and the project, the students' role can range from trivial to critical. A first year graduate student needs a lot of attention when it comes to research (this does not mean they get a lot of attention).

This is also a time in which the students should be actively thinking about and exploring topics for their dissertation. This may sound crazy to a first year graduate student (not to an advisor), but the earlier a dissertation topic is identified, the sooner their research focus can move in that direction.

For a First Year Student

As a student you will be confused in your first year of graduate school. At this point you are a follower, as you probably have been most of your academic life. You are constantly looking for direction from others and need lots of reinforcement to ensure you are doing things right. Most first year students are not given enough direction or support, which is why you will feel lost and confused about where you are and what you should be doing.

Your advisor will most likely have expectations for what you should be doing, but probably won't spend enough time explaining those expectations with you. The first year with your advisor might be a bit rocky. Remember your advisor is a busy person. Most likely he/she is juggling several research projects, teaching responsibilities, other students, and possibly a life outside of work. As a student you it is important to remember you are just a single piece of your advisor's busy schedule. During your first year try to study your advisor and figure out how he/she works and what they expect. Ask a lot of questions. As a student, you will have a lot of questions. Your advisor may be able to help answer them if you just ask.

In your first year you may feel your advisor is ignoring you. That is probably not true. They are probably just busy. Make appointments to meet with your advisor, even if they do not suggest you meet. When you make these appointments, make sure the meetings have a purpose. You don't want to waste your advisor's time. At some point in your first year you should meet with your advisor and talk to them about your goals. Try to get your advisor to help layout a road map for your time in graduate school. Most advisors will just let you wonder about what happens next in graduate school. It will be to your benefit if you meet with them and specifically ask, "What is my next milestone?" If you do this you won't be left wondering what's next, you'll know.

First Year as an Advisor

As an advisor of a new graduate student, you should try to remember your first year of graduate school experiences. Think about the expectations you had. The feelings you felt. What would have made your first year of graduate school better? Take the time to talk to your students. Be a leader and give them direction when they need it. Encourage them to explore the field of study and motivate them to be constantly moving forward.

As much as you might encourage students to come talk to you, they might be intimidated by you. Scheduling meetings is a valuable thing to do, as long as you inform the student what the meeting is about and let them know if they need to prepare anything for the meeting.

From a research standpoint remember this is new to the students. The best objective for an advisor would be to try to keep first year graduate students efficient while they get acquainted with the idea of research. Give them research tasks or projects, track their progress, and try not to let them get stuck for too long. The longer a student gets stuck when they are starting out in research, the more discouraged they will get. By keeping them efficient and preventing them from wasting their time in these early stages you will keep them motivated.

Stage 3. Second Year Experiences

The second year of graduate school is not drastically different from the first, except the student and the advisor have developed some sort of relationship (or at least they should have.) The students will take classes and continue to expand and grow their knowledge. Class selection in the second year of graduate school may be more influenced by the student's interest in research and research goals.

During the second year the graduate student should become slightly more independent. They should take ownership of their research project and start to look to their advisor for guidance and feedback, rather than instruction.

Typically, the second year of graduate school also brings the dreaded qualifying exam. This is an exam that not only tests what students know, but it tests what they don't know.

Second Year Student

In your second year of graduate school you should strive to learn independence. Really try to take control of your research. Your advisor is still there to give you direction, but the research needs to become your own. Continue to interact with your advisor and be proactive in scheduling meetings. Your advisor doesn't necessarily know you need to meet with him/her unless you tell them. If your advisor is busy, force him/her to pay attention to you when you need it by scheduling meetings. By now you should be able to see when you are getting stuck (in the research) and you should seek the help of your advisor or others, in order to keep moving forward.

In your second year you should also continue exploring the various areas of research. Be sure you talk to your advisor about dissertation topics. Your advisor may not bring this up until your third or fourth, but it is to your benefit to start these discussions in your first and second years. Remember, it is your dissertation, not your advisors.

Don't be too intimidated by the qualifying exam. It is intended to identify things you don't know. Trust me, everyone has far more that they don't know, than that they do know.

Second Year as an Advisor

As an advisor of a second year student, remember they are still learning. Your student does not always know how to meet all of your expectations. Give them a bit more responsibility in their research, but don't abandon them. One thing that is important to a student's success is how motivated they are, try to keep them motivated. How? The key to a student's motivation is often linked to how efficient and successful they can be. Don't let your students get stuck for too long, push them when they need a push. Encourage them to talk to you and keep an eye on what they are doing. The longer you let them struggle with a task, the more they will resent both you and the task.

Stage 4. 3rd, 4th, 5th, etc. Year Experiences

By the 3rd year you are a pro. In the remaining years at graduate school, student may take a few more classes, but the focus has shifted toward research. By the third year a student should be able to identify several research areas of research that they are interested in and if they have not chosen a dissertation topic yet, now is the time.

By the third year of graduate school, not many school requirements remain. The main requirement is a dissertation. The graduate timeline at this point is driven mostly by the student's motivation and assertiveness. If the student wants to be done at the end of the 3rd year, it is possible. They need to start by working hard on their research and demanding the attention of their advisor. This will not guarantee they finish at the end of the 3rd year, but the opportunity does exist. The new found independence from classes in combination with the daunting task of writing a dissertation often leaves the third year students lost again. Students typically have a hard time defining the research in their dissertation and getting started.

The Third Year (and Beyond) Student

You made it through two years, now is the tough part. By the third year you should be a fairly independent researcher. At this point you need to start working on your dissertation. (Your own research problem and solution.) If your advisor is nice he/she will help you get started by working with you to lay out your dissertation, but this is not always the case. If your advisor doesn't sit down with you to layout your dissertation, you should create and outline yourself and present it to them. This will help to get the discussion going.

Just as in the previous years, try to keep yourself motivated by moving forward. If you feel you are getting stuck or losing momentum seek help. Also, remember there are other faculty and students you can ask for feedback, if your advisor is not providing you with enough attention.

Third Year (and Beyond) as an Advisor

By the third year you should know a student quite well. You should be able to see what they are capable and what skills they still need to attain. At this point a graduate student should be doing research almost independent of you. Try to make sure your student has a good dissertation outline established before you give them their independence. This will help save both of you time and disappointment.

From here on out, the schedule is really driven by the student. Try to keep them on some sort of track. Don't let them wonder off and get lost. Be available to listen to their thoughts and give them feedback about their research ideas. You may need to help guide them toward a solution now and then, or provide them with references to information they didn't realize existed. Remember you have been around longer than they have and you know a lot more about what information is already available.

Stage 5. Getting Out

The ticket out of graduate school (and every graduate student's dream) is a signed dissertation or thesis. Most programs require a dissertation proposal, a proposal defense, a dissertation and a dissertation defense. This gauntlet is daunting to most graduate students. It should not be, but it is.

After defining the topic of the dissertation and completing some of the research, but before the proposal defense, a student must choose a defense committee. This committee will determine whether the dissertation work is sufficient for graduation. Committees generally have four or five members including the advisors, one or two faculty from the same department and a faculty member from an external department. Students should work with their advisors to select the committee members.

The proposal is a statement of the research intentions to be conducted in a dissertation. This document does not need to be very sophisticated, but it needs clear and somewhat thorough. The proposal defense presents the ideas within your proposal to a committee. The committee is responsible for determining whether the proposed research items are sufficient for a dissertation. Once a student passes the proposal defense it is onto writing the dissertation. The dissertation is a research document that should achieve the goals set forth in the proposal. The final step is the dissertation defense. Again, a committee will review the materials of your research and confirm its validity, originality and comprehensiveness. After the committee is pleased with the student's work, the dissertation is approved and barring any other requirements the graduate student is finished.

3.0 For Current and Future Graduate Students

Remember this: Graduate students should study because they love learning, exploring and discovering new things. Learning should never be a burden.

This section is written to current and future graduate students, others are welcome and encouraged to read. Graduate school is a place where you are expected to grow up. It is not as though you aren't grown up when you arrive, but the expectations others have for you are probably greater than they have ever been.

Expectations are a big part of graduate school and everyone has different expectations. Understanding and meeting your own personal expectations is important, but when you are in graduate school you will also be pressured by (or at least feel pressured by) the expectations of your advisor, other faculty, your department, the school, other students

and potential future employers. Do not let the expectations of other people control you. Yes, it is important to try to meet the expectations of your advisor, but your goal should be research driven, not fear driven. Rather than spending time worrying about whether your advisor will be pleased with your work, you should be working more. If you are doing your best and working up to your potential, your advisor and others should be pleased and possibly impressed by your progress and results.

There are a few simple, fundamental things many people learn through the course of graduate school. Don't be afraid to learn. In order to learn you must listen and hear what is being taught. Learning is not memorization. It is understanding ideas and concepts and figuring out what things mean and why things are. Learn with an open mind and give yourself the opportunity to explore new ideas and concepts. Reading, although it may sound boring, provides the largest source of information at the graduate level. If you are interested in something find papers and read about it. The more you read, the more you can learn. Reading and listening do not imply learning though. In order to demonstrate learning you must have understood the material. If you don't understand something ask questions. I know many advisors and faculty can be intimidating. You should not feel embarrassed to ask questions; you are there to learn and by asking questions you will be able to come to a better understanding of the material when things are unclear.

Here are three topics every graduate student encounters: motivation, pressure and self-esteem. These are make or break categories for graduate students. Lack of motivation leads to failure. Pressure leads to explosion. Low self-esteem often caused by pressure can lead to lack of motivation. Do not let motivation, pressure and self-esteem be the end of you.

Motivation is the drive you need to have to keep moving forward. As a graduate student you will not always feel motivated. When you can not find the motivation yourself, find other students, faculty, or your advisor to help and support you. Losing the motivation to continue and do research is one of the main reasons many graduate students leave without a degree. I feel (and many of my peers agree) there are two main reasons graduate students lose motivation.

- 1) Their self-esteem has been destroyed by their advisor or another faculty member. This can be due to direct criticism of their work or because the students feel they are unable to meet what they perceive to be the expectations put on them.
- 2) Simply put motivation is lost because the student is not (or does not feel they are) making progress. This often occurs when a student gets "stuck" on a research problem or is confused about what they should be doing next.

One should be aware that their self-esteem is likely to be trampled throughout graduate study. Try to look out for this and ensure that you don't let this steal your motivation to do your research. If possible use the criticism as motivation to do better. In order to prevent the loss of motivation due to lack of progress, ask for help. If you feel you are

struggling too much or that you are not making any progress, seek the help of your advisor, other faculty or peers. They may be able to give you the push you need. Pressure is typically a *self-inflicted* pain. Your advisor and other will have expectations about the quality of work and your progress. Often students turn these expectations or perceived expectations into unbearable pressures. Pressures to get work done, pressures to achieve more, pressures to succeed, pressure to be at the top. Getting work done, achieving more, succeeding and being at the top are all good things, but pressure should not be the driving force. Desire and motivation should encourage you to succeed at your goals.

Finally, self-esteem is very important. You made it to graduate school, be proud of yourself. Don't worry if someone is better than you. Don't worry if you aren't perfect all the time. Be proud of the work you do, if you aren't, then work harder and do it better. If you are proud of your work, others will most likely be impressed by it. If you are worried about what your advisor is going to think of your work, you most likely aren't proud of it yourself.

4.0 For Faculty and Advisors

So for all you faculty and advisors out there, remember when you went to graduate school? Remember thinking about all the things you were going to do different when you became a professor? Are you doing things different? Probably not, maybe some of you are, but my guess is you have gotten tied up in research projects, proposal writing, teaching and other things to really focus on changing life for graduate students. Its okay, you're human.

Please take a few minutes to review the following items. They are things you probably already know, but probably never really think about.

- 1) Graduate students do not have much research experience.

When you got to graduate school, what did you know about research? Advisor/Professors usually have very high expectations for graduate students. This is not wrong. I'd encourage you all to have very high expectations for graduate students, but you have to share these expectations with your students so they know what they are and can try to meet them. If you don't share your expectations, you are continually setting your students up for hardships and failure.

- 2) Graduate students may not share your dreams.

Were your interests and your advisors interest the same? I think for the most part if the student and advisor are well matched they will share some of the same interests but, everyone is different. Don't try to trap a student into your research encourage them to explore many areas of research and if they find something they are more interested in working on encourage them to pursue it. When they leave graduate school they need to enjoy their work.

3) Your answer might not be the only answer.

This is a tough one for most advisors because, professors are typically very opinionated. When it comes to research, the problems aren't always defined and answers aren't really known. To many times an advisor will force your student to come up with their (the advisor's) answer. Naturally, when a research problem is presented to a faculty member, they will form their own opinions about the problem and its solution. So when a student presents his/her work to you and the student's approach isn't what you expected, don't just discard it. Be open-minded and encourage your students to be open-minded. Discuss both their approaches and your own.

4) Discussion can solve all a graduate student's problems.

Above, in section 3, I discussed expectations, pressure, motivation and self-esteem. Each of these has the ability to send a graduate student into a tailspin. As a graduate student advisor you have the ability to prevent or stop the downward spirals (most of the time). It is as simple as a conversation. Communication between a student and their advisor is critical to their success. Talk to your students. Talk to them about what they are doing, what they'd like to be doing, ask about classes, try to detect stress and its source, help motivate your students by discussing their ideas and every once in a while praise your student's work if you can. Graduate students aren't that different from you. You like to get your boss's attention and guidance every once in a while. Just make sure you always keep the communication lines open with your graduate students.

A final thought: I once asked one of my advisors what the most valuable thing he learned in graduate school was. Without hesitation he said, "To get in my advisor's face." On one hand, that is a very valuable thing for any student to learn, because that is how you get things done and keep moving forward. On the other hand, as faculty and advisors shouldn't you be able to provide your students with more valuable lessons than that.

5.0 Looking Back and Looking Forward

As defined earlier, Graduate school is "an institution of higher learning."^[1] It is a place for students to expand their minds and encounter many new experiences. Students enter graduate school unsure of what to expect. While they are there students learn to deal with and handle the unexpected. Graduate school is a place where followers become leaders.

Research may seem like the biggest part of graduate school, to a student when they are in school, but it is all the little lessons about listening, learning, managing oneself, managing expectations and pressures, and being open-minded that will be the lessons that are used throughout their career and life.

Graduate school is not the end of the road, life after graduate school is another brand new adventure. Some choose to enter academia, others choose the "real world", and still others choose entirely new fields to study and pursue. For me, the future holds the hunt for tenure.

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