Choosing a Thesis Advisor: Surprise and Success

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Choosing a Thesis Advisor: Surprise and Success

Abstract
One of the most daunting and yet important decisions in graduate school is the selection of your thesis advisor. Inviting an advisor into your graduate thesis process is like hiring a ship navigator who will help guide your graduate study through the sometimes choppy waters of data research and thesis writing and into the safe harbor of graduation and a good job. Although you remain the captain of your own career, your graduate advisor teaches you how to use the charts and equipment that will bring you to the completion of your graduate degree.

The specific steps involved in choosing an advisor vary according to department and school; however, some aspects of this process are universal, no matter which college or university you attend. Many people compare this selection process to choosing a spouse, because the thesis advisor is someone who will be with you, directly or indirectly, throughout your professional life. As in finding and forging any successful professional relationship, identifying a compatible advisor is not an easy task, and few road maps exist that explain how to manage it. Consequently, most graduate students begin the process of choosing their thesis advisor without much background information. A lack of preparation can lead to disappointing results, whereas an informed approach can achieve a very satisfying outcome. In fact, a compatible advisor can function as your career navigator, someone you can consult for professional advice whenever your career takes an unexpected turn or presents a promising opportunity. In the end, the rewards that come with a reliable advisor who is right for you, your professional goals, and your field of study, are worth the investment of extra time and energy in a thorough search process.

In the stories that follow, I offer you some insight into this sometimes unpredictable quest and share my decision-making process, as well as a few of the experiences I have had in my search for thesis advisors. I hope this chapter will prepare you to choose an advisor who will work well with you and see you through to the completion of your graduate degree.

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Chapter 3
Choosing a Thesis Advisor: Surprise and Success

Kermin Joel Hernández, PhD

INTRODUCTION

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STARTING YOUR ADVISOR SEARCH

The logical first step in choosing a graduate thesis advisor is identifying a professor in your area of interest with whom you believe you would work well. This requires having a clear focus in terms of your field of interest. When you have determined the area you wish to study, the process of identifying your preferred thesis advisor can often start with a combination of things: advice from your undergraduate professors, your own research and planning, and as my narrative will show, a certain amount of luck and being ready to respond to an opportunity when it presents itself.

I believe that finding the right advisor is an organic process that develops out of interests and the connections you have made in your undergraduate program. This process often begins in your undergraduate years when you start to search for the college or university that you want to attend and the graduate program that matches your research interests. In my case, I was certain of where I wanted to study, and that certainty led me to find my graduate thesis advisor unexpectedly. My story is an example of getting to know one’s advisor before entering graduate school, as I did before I began my master’s program. Finding an advisor who aligned with my personality and research interests
was the key to my successful advisor/graduate student relationship. My story starts with my bachelor’s degree program, because the chain of events and connections that led to my area of interest, and then my graduate advisor, started there. In it I share how I met my advisors, how I made my decision to work with them, and how these advisors became my valuable colleagues.

**Good Things Are Sometimes Found in Unexpected Places**

My story begins during the second year of my bachelor’s degree program. I was taking an analytical chemistry course to complete my program requirements when a new instructor, Dr. García-Díaz, was assigned to teach the class. He seemed to be an amicable guy, and he had a lot of passion for chemistry and his research. I remember that around sixty-five students were in that classroom without air conditioning in August, and oh boy—it was hot! We were sweating like crazy, but we still paid close attention to the new professor because he was interesting and seemed to have much to offer us as students.

At that time I had no clue as to what specifically I wanted to do as a chemist, and then to my surprise, I fell in love with analytical chemistry in that class. The way this professor explained the concepts and the applications was fantastic and enough to motivate me fully and spark my desire to look deeper into analytical chemistry as a field of study. Maybe his passion for the field was the fuel that sparked my interest in it, or maybe it was his honesty about his life experiences and his unique way of bringing relevant topics from the real world into the classroom. Not every professor does a good job of connecting everyday life with the scientific topics discussed in class, but in this regard Dr. García-Díaz gave it his best shot every time and was always right on target.

Because his enthusiasm rubbed off on me, I did very well in that class and recognized that Dr. García-Díaz was someone with whom I wanted to work more. I looked up his research interests on the department website, and I became even more convinced that I wanted to work with him when I found that he studied natural compounds in medicinal plants, a topic I was very interested in studying. So, in meeting Dr. García-Díaz I had not only found someone I wanted to work with, but also discovered my major area of academic interest.

The next step in finding my advisor, according to university policy, was for me to request a position in Dr. García-Díaz’s lab. I approached him to see if he would accept me and we ended up chatting for about two hours in his
office. He talked about his research, his family, and life in general. I learned then that he was very personable and a pro-student professor. Most importantly, he said he would be happy to have me work in his lab for my junior and senior research courses. We then discussed several possible research topics that we could explore, and one of them really struck my interest: analyzing endemic plants from Puerto Rico to verify their medicinal properties. I had grown up with a mother who grew herbs and medicinal plants in our backyard, and I was always fascinated with the way various illnesses responded to these plant remedies. We ended our conversation on a very positive note. He involved me right away in his current project, asking me to research the background of verbena (*Stachytarpheta jamaicensis*), a plant he was interested in investigating. We agreed to meet the following week to go over my findings.

I spent that week at the library reading background information on verbena and its properties. Unfortunately the library did not have very much to offer, but I did find materials online at other libraries. So, I went to the information desk and asked a librarian for help. She told me I needed to order these materials from interlibrary loan, which could take several weeks. (Back in those days, interlibrary loan worked as it does now, but it was much slower.) Although it would be frustrating to wait that long, I realized that the wait would be okay, even if I didn’t like it much. I had to meet with my professor the next day and I would have to show up empty-handed.

Walking back to the chemistry building, I was thinking about this nerve-wracking situation when I saw my friend Miguel, who asked me how things were going. I told him that Dr. García-Díaz wanted me to research something and I just found out it was going to take forever to get what I need from interlibrary loan. He said, “You will get it, don’t worry. They are slow, but eventually you will get it. I did it one time and it took just a month.” I guess I had to be patient, but I didn’t look forward to telling Dr. García-Díaz that I hadn’t been successful in finding much on verbena. So, I went home and tried to relax a little and prepare for my meeting the next day.

Much to my surprise, Dr. García-Díaz was pleased with my progress even though, as far as I was concerned, I was unable to do much. He said, “Don’t worry, this is part of being a scientist. You need to be patient. You did a good job finding what you needed and ordering it.” So, that made me feel very good and I was reassured of my decision to work with him. Then, also unexpectedly, he offered me a job in his lab during the summer. Needless to say, I immediately took him up on it.
Another Great Surprise

As it turned out, I was able to get funding for my work with Dr. García-Díaz in the summer through the Louis Stokes Alliances for Minority Participation (LSAMP). I found out about this funding opportunity when I noticed a bright orange flyer on the department bulletin board by the main office. It was covered with a crowded patchwork of flyers advertising all kinds of different learning opportunities and study programs. I remember that the orange flyer said: “Research Summer Experience, stipend available.” Later, when I was talking with our department’s academic advisor, she mentioned the LSAMP program, so I went back and looked at the information on the flyer again, and there was the LSAMP website. I looked it up right away. The description of the program spoke to my career interests, and I met the qualifications for it. I went ahead and applied, hoping for the best. I was elated when I actually received the fellowship and told Dr. García-Díaz about it in my next meeting with him.

He was very excited that I was able to find funding for my work and told me that I could start working right away on his latest research idea, this time involving the characterization of the chemical compounds found in the verbena plant. I accepted this challenge. In the meantime, while waiting for my interlibrary loans to arrive, I was patient but not idle. I purchased some reagents and other materials that I needed and began the work as far as I could. Three weeks later, the interlibrary loan materials finally arrived, and I was able to learn more about the plant properties and other research that had been done on them.

I continued with this research for the following two years of my undergraduate program and learned the basics of scientific research procedures and instrumentation techniques in analytical chemistry. It was exciting to get involved with a lab so early in my career and learn the ups and downs of chemistry research. The downs dominated parts of the journey, but Dr. García-Díaz helped me understand that disappointments were part of the process. He often remarked: “99 percent of experiments don’t work out, but the successful 1 percent have made great contributions to science.”

After working with me for several months, Dr. García-Díaz saw my potential as a researcher and encouraged me to continue with the master’s program in chemistry after I finished my BS degree. I applied to the chemistry program there at the University of Puerto Rico–Mayagüez (UPR–Mayagüez) and was accepted. Naturally, I selected Dr. García-Díaz as my advisor for my master’s thesis,
even while I was still finishing my undergraduate research projects. I was grate­ful to find my master’s thesis advisor in this way. Since I had taken a class with him and gotten to know him while I was an undergraduate, I knew I had a good rapport with him before I asked him to be my advisor for my master’s project.

Throughout my master’s program, Dr. García-Díaz facilitated my develop­ment as a researcher and coached me in gaining the skills I needed to be successful in scientific research. I liked his honesty about research and his patience in dealing with me as a student attempting to learn. He was a good listener and open to advising me on things besides my research, like personal issues and life difficulties. I discovered he was wise in many ways. He also trained me to advise younger graduate and undergraduate students regarding their research. I became pretty much in charge of running his lab and making sure that it was properly stocked with all the materials and supplies needed to operate efficiently. Dr. García-Díaz always encouraged my attending na­tional conferences to present research, both at the undergraduate and gradu­ate levels. He also challenged me regularly. He knew, for instance, that I was not good in English, but he encouraged me to move beyond my comfort zone and to not be shy. I met his challenges and worked hard at putting together conference presentations in English, even though I felt awkward doing so. I am grateful to him for having pushed me like this, because it really helped my public speaking and my spoken English skills.

Very grateful for Dr. García-Díaz’s mentorship, I successfully graduated with my MS in chemistry. Thanks to the years that I worked in his lab and the rapport that he and I developed, we still have a good relationship today, even though he wanted me to continue as an analytical chemist, and I chose instead to study chemical education. Every time I go back to visit my family and friends in Puerto Rico, I meet with him and we talk for hours. He has become more than an advisor to me. I consider him a friend, a colleague, a mentor, and a role model. Not only did Dr. García-Díaz’s mentoring greatly facilitate my success in the MS program at UPR-Mayagüez, his encourage­ment to attend conferences also led me to my PhD thesis advisor.

The Right Place at the Right Time

Some people might find their PhD advisor very logically, through a referral or through a focused search of the literature in their area of interest. Others might find their advisor randomly when they are not even looking and in
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places that they hadn't anticipated, such as a professional conference, which was where I met mine.

When I was in the master's program at UPR-Mayagüez, I attended a major chemistry conference to present a paper in the beautiful city of Ponce, Puerto Rico, where I loved to breathe in the fresh shoreline breezes of the Caribbean Sea. At that time I was also applying to graduate school for my doctoral degree. I was interested in doing my PhD studies in chemical education, and Purdue University was my first choice because I had been advised by one of my professors that Purdue was a pioneer in the chemical education field. I didn't have any idea where Purdue was, so I also didn't know it is located in a small city quite far away from everything except soybean and corn fields. I knew it had a prestigious reputation, so I was very interested in studying there.

As I sat on the conference center veranda in Ponce looking out over the shining blue waters of the bay, I finally had the time to read through the conference program in detail, and to my surprise, one of the speakers was Dr. Kathryn Henderson, a professor of chemical education from Purdue University. What a great coincidence! For me, her presence there in Puerto Rico was pure chance, random and unexpected. You can call this moment serendipity or just simply luck, but it happened at the right time and the right place, and much to my advantage. Even though attending conferences took time and energy amid the work of graduate school, I knew then why Dr. García-Díaz always got me to attend these events.

I wrote down the time and location of Dr. Henderson's presentation and made sure I attended. Her talk was great. She discussed her research—the use of technology as an educational tool. I liked her work very much and was eager to learn more about it. I spoke with her after her paper presentation and told her about my sincere interest in attending Purdue's program in chemical education. Speaking English with Dr. Henderson was a challenge, but I did my best with my exotic accent (as some have referred to it) to make sure she realized that I was very interested in her work. We spoke briefly, because others were waiting to speak with her, but she gave me her business card so that I could follow up by e-mail. I had just met a person who was going to play a major role in my life, and I had nothing to do with finding her, except that I had worked very intensively to get my paper ready for that conference. Now it looked like my hard work was paying off in unexpected ways.
Welcome to the Sea of Green

Directly after the conference, with help from friends with my English, I followed through and e-mailed Dr. Henderson with my questions about the chemical education program at Purdue. Her positive response confirmed for me that I wanted to do my PhD studies at Purdue University. The rest just sort of went according to plan as I followed Purdue’s graduate school application procedures. I applied and was accepted, and I made arrangements for a campus visit. One thing I did that was very important: I contacted Dr. Henderson by e-mail in advance of my trip so that I could set up a meeting and speak with her in person while I was there. Let me tell you that I revised that e-mail many times and asked my friends to proofread it to make sure it was correct. I didn’t want to give the wrong impression; I knew that my English needed work. In this e-mail I reminded Dr. Henderson about the conversation we had in Puerto Rico and the e-mails we had already exchanged so that she would remember me. (Whenever I follow up with contacts I make at conferences, I am careful to mention where we met.) This advance planning worked out. I heard back from her well before I left for Purdue and we set up a meeting that accommodated both of our schedules.

Everything seemed to be coming together magically until I was driving to the airport to get my plane at San Juan to fly to Indianapolis, Indiana—the closest airport to West Lafayette. I was so excited about my campus visit that I didn’t realize I was speeding. The next thing I knew, I was pulled over. The police officer was not kind. No warning—he gave me a $120 speeding ticket. What bad luck. I slowed down and tried to keep thinking positively that everything would be all right, but reflecting on it later I realized that this speeding ticket was foreshadowing some of the surprises waiting for me at Purdue. At that point, however, I just kept telling myself, “I just have to get to Purdue and everything will be okay.” Fortunately, my visit from the traffic cop didn’t make me late, and I still made my flight, which was about six hours long. I finally arrived in Indianapolis and learned that I had to take a limo to West Lafayette. When the ground transport lady told me about it, I was thinking, “Wow—a limo, really? That sounds nice.”

Well as often is the case, it took longer than expected to get my bags, and the next thing I knew I was running like mad to make it on time to the place where the limo stopped for passengers. I made it okay, but then, guess what.
I found myself standing inside this boxy, old-fashioned shuttle bus with another twenty people or so, more or less jammed into this odd version of a limo! And, I didn’t realize that I would be inside this little box on wheels for at least an hour.

The ride from the airport to West Lafayette was kind of wild with a nutty, annoying driver, who accelerated and decelerated constantly throughout the whole trip. I hoped that all of this was not a premonition of my graduate school experience to come. As it turned out, some of this start and stop craziness would actually continue.

After we left the Indianapolis city limits I noticed a new color surrounding me: rich and vibrant green. Many little farms with their wide fields of beans and corn stretched as far as the eye could see. I felt like I was a pioneer heading west, even though we were headed north. Finally, after twenty-something stops in the little towns along the way, around nine o’clock at night, a bigger town appeared. We had arrived in West Lafayette at the Purdue Memorial Union Hotel. None of the insanity I endured on my trip mattered now. I found my room, crashed onto my bed, and slept so I would be ready and alert for my campus visit the next day.

I woke up early in the morning and, using a campus map, located the chemistry department and headed across campus for meetings with various professors and administrators. Later that day, I went to the appointment that I had set up with Dr. Henderson. I made it a point to find her office and be there waiting to meet her well ahead of time. She was glad to see me and said in the interview that she wanted to accept me into her research group, but then explained that I needed to follow the department protocol when I arrived in the fall before being assigned to a particular lab. She said that this protocol involved sitting in on at least eight faculty members’ introductory lectures explaining their research. She highly encouraged me to put her name as my first choice on the forms I had to fill out. After meeting with her, I felt pretty confident that I would be able to get her as my advisor, but I wasn’t so sure about the eight introductory lectures I had to sit in on. I decided that, as always, I would worry about it when the time came and then do my best to succeed. On the whole, the campus visit went very well, and I felt I was almost sure of a place in Dr. Henderson’s lab, if I followed all of the details of the department protocol as she had explained.

The next day, I boarded the lovely limo back to the Indianapolis airport and arrived in plenty of time for my return trip to San Juan, which went via
Miami. Unfortunately, the airplane had mechanical problems, and my flight was delayed for an hour or so. By the time we got going, I had barely enough time to make my Miami connection, which was with a different airline. As soon as I got to Miami, I took off running to the other terminal but missed my connection. Darn it! Then, just to add a little more spice to the story, the airline didn't have any seats on any other flight that night to San Juan. And, no matter how much I pleaded, they didn't want to pay for my overnight stay. According to them, I had flown with a different airline from Indianapolis, and so my situation "was not their fault." This meant I had to pay for my hotel—not fun! I begged the agent to put me on the earliest flight to San Juan. Fortunately she felt compassion for me and found me a seat on the very next flight at 5:30 the following morning. Great, I was all set with my flight. Now all I needed was to find a hotel. I went outside and waved down a taxi and asked him to drop me at a hotel that he could recommend. I also made a reservation with him to pick me up the next morning at 3:30 a.m., so that I wouldn't miss my flight.

Off we went to his version of a hotel. I don't know what that taxi driver was thinking. He dropped me off at a motel that I don't want to remember. True, they had rooms available for a very affordable price, too good to be true, in fact. I was too tired to deal with looking for another place, so I checked in and found the so-called room. When I tried to close the door, it wouldn't shut completely, let alone lock. The room smelled like smoke, and the air conditioner made this weird squeaky noise. The bathroom, especially the bathtub, was kind of dirty and certainly not a place for a pleasant shower. I ended up going to the nearby drugstore to buy some cleanser to clean the tub, and I still wore my flip-flops in the shower. What a nightmare! I didn't sleep that well, thinking that someone would open the door of my room at any moment. I woke up at 3:00 a.m. the next morning and was outside at 3:30 waiting for the taxi driver, but even after several phone calls, he never showed up.

I nervously called another taxi, which came quickly (thank heaven), and I managed to get to the airport on time but not early enough to eat breakfast or even buy a granola bar. With no meal served on the flight, I starved. At least I was able to rest a little on the plane. Once we landed in San Juan I headed straight for the donuts and coffee in the terminal. Then I grabbed my luggage and found my car, which I had safely parked in the airport lot, and with a few extra donuts and my coffee refill, I started my two and a half hour drive back to Mayagüez, car windows down and gratefully inhaling the
clean breeze from my beautiful island's seashores. After an hour or so, I was happily singing along with a very famous salsa song on the radio, "Así Es La Mujer Que Amo" ("This Is the Woman That I Love"), when I slowed down to stop at a traffic light and noticed in my mirror the blue flashing lights of a police car, again! I was thinking maybe something had happened somewhere else and he would pass me, but no, I was wrong. He sounded his siren and pulled me over.

I started to laugh out loud and the police officer asked me what I was laughing about. "What is so funny?" he questioned. I said, "Señor, this is unbelievable. It has nothing to do with you. I am just laughing to avoid crying." I continued, "I am going to put a concrete block under my gas pedal because I was just pulled over three days ago on my way to the airport to go to a campus visit at Purdue University. And tonight, I am returning back home and here I get pulled over again." He just said, "Well, you were speeding!" and proceeded to give me a $130 ticket. Apparently, the dutiful police officer didn't appreciate my Purdue story. What ridiculously bad luck. I just hoped that this trend was only temporary. I consoled myself thinking about my campus visit to Purdue and all of its memorable moments. Trying not to think about the eight miscellaneous lectures I would have to attend, I felt confident I could rest assured that I had successfully set myself up with an excellent advisor for my PhD studies. Unfortunately, I was stuck in debt for a while with the grungy hotel bill and the hefty $250 in speeding fines, but these costs were just a minor setback. I was accepted by Purdue University's chemistry department and that was all that mattered to me.

After my Purdue campus visit and my airport odyssey, it was time to re-focus on my studies. For the remainder of the semester and the rest of the summer, I finished my master's thesis, graduated with my master's degree, and got organized for my PhD program at Purdue. Also at that time, and while I was writing my master's thesis, I was preparing for my wedding with my wonderful fiancée, Nahyr, whom I had met during a chemical education conference in San Juan a year earlier. I had been singing about a real person when I was speeding down that road. We decided to get married on July 21, just before we would move to West Lafayette and Purdue. We returned from our honeymoon on July 27, and by August 1 we were unpacking our things in West Lafayette, Indiana. Fortunately travel woes had not continued to plague us. The fall semester would soon begin, and I was very excited to be starting graduate school in a PhD program.
A Few Clouds, a Silver Lining

During the first week in my new PhD program, I set up a meeting with Dr. Henderson and spoke with her in person. I mentioned again my interest in being part of her research group, and she reminded me again of the protocol I needed to follow in order to get into her lab. She said that the details were all explained in the department handbook. I thanked her for her instruction, but in fact I was seriously frustrated. I wanted to bypass these eight lectures. I was being subtly asked to slow down—a message that I had unfortunately heard before from two traffic cops outside of San Juan. I just wanted to move forward and grab my opportunity to work with Dr. Henderson. I knew I wanted her as my advisor. What if something went wrong with the process, and she didn't get assigned to me? I wanted a commitment! But no matter how nice I was, how great my application for the program was, or how organized and responsible I may have seemed, all she did was tell me about the department handbook I had to read. She was as strict as the traffic cop with his little pad of tickets.

At the graduate student orientation, I finally received the handbook, which indeed explained the details about the chemistry department’s procedure for selecting a thesis advisor. This process requires all of the chemistry department professors to give presentations throughout the fall semester that introduce their research interests to the new graduate students. Each student must attend eight of these talks. Then the student selects the top three that interest him or her the most, fills out the necessary paperwork, and hopes for the best. Well, no way around it, I had to slow down. The eight lectures had to be my next step.

Let me tell you, sitting through these talks was very time consuming, tedious, and in some instances downright boring. The whole process took about two months. Since only four of the research talks I attended were related to chemistry education, this meant that I needed to attend four others that did not interest me at all. However, I was patient during this process and hung in there, hoping that I would get my first choice of advisor and the lab I knew I wanted. Despite these delays, I did not lose sight of my final destination.

If listening to research talks not related to my field of interest was boring, the competition to get into the lab of my choice made up for this lack of excitement. Because at that time the department had only four professors in chemical education, and only three were accepting new graduate students,
there were many more students than there were places in the labs. Let me clarify that even though the graduate student indicates that a certain professor is his or her first choice, this selection does not guarantee that the professor will accept the student into his or her research group. It's sort of like getting onto the airport limo, but without a guarantee that the limo will stop at the destination named on your ticket. Consequently, a certain amount of politics gets involved in this selection process, and some graduate students do not play fair in this game. Though their behavior is not admirable, it is understandable because everyone wants to get his or her first choice of the available labs. Some graduate students can do extreme things in order to be accepted in research groups, and frequently a good deal of drama transpires during the placement process of graduate students with suitable labs and advisors. Some of my colleagues had not made contact with an advisor in advance the way I did, and these people ended up joining research groups other than their first choice.

Since I knew beforehand which professor I wanted to work with, and since I had introduced myself to Dr. Henderson in advance so that she knew me and wanted me in her lab, in the end things worked out the way I wanted them to. Thank goodness she accepted me into her research group. Most importantly, I am happy to share with you that I successfully completed my program and obtained my PhD in chemical education with Dr. Henderson, whose instruction and guidance was second to none.

The energy you put into learning about graduate programs and their faculty, the clear and timely communication you have with the professors you are interested in working with, and your patience in going through the sometimes tedious process of selecting an advisor will all pay off in the end. I can assure you that the skills I learned from my doctoral work became assets for my postdoctoral position. Being able to show that I could work with an interdisciplinary group of researchers helped me tremendously during my interview and work as a postdoctoral researcher.

I highly advise those who are considering a graduate degree in the sciences to do your homework in advance of choosing a graduate advisor. Read articles written by the professor that you want to work with, meet in advance with the professor in person if at all possible, and verify whether or not you "click." Visit the professor's research group and talk with other graduate and postdoctoral students. Ask if it would be permissible to follow along with their research group for a day or two, and while there, ask as many questions as possible. Remember, the professor in charge of this lab will be the person
advising you for the next four or more years of your life, so you need to be very wise about selecting the best possible fit for yourself as you choose a thesis advisor and research program.

In looking back, I think my early knowledge that I wanted to go to Purdue, reaching out to meet my future thesis advisor at that conference, and then going out of my way to meet her again during my campus visit, contributed to my being accepted into her lab. I was also fortunate enough to choose advisors, both in my master's and PhD programs, who helped me develop a set of skills beyond my major area of research. Having these skills allowed me to demonstrate to my future colleagues that I could work outside of my comfort zone. For example, I started as an analytical chemist for my master's, then I switched gears to chemical education with an emphasis in video gaming. So, I was well equipped to do research and assessment in a nontraditional environment. Although I didn't realize their full value at the time, the skills I gained working with my two advisors in two different fields paved the way for my postdoctoral position in educational outreach in nanotechnology. I was able to use all the skills I developed during graduate school in my postdoctoral position. And, having these skills increased the likelihood I would land a tenure track job. Consequently, I am happy to tell you that I have recently accepted a tenure track teaching position and I will soon begin my first semester as an assistant professor in chemistry at a teaching-oriented liberal arts school in upstate New York.

CONCLUSION

The story related in this chapter provides some key insights into choosing the right thesis advisor who can make your graduate program an exciting and rewarding academic experience. Finding this advisor requires that you know quite clearly the topic and direction you want to pursue in graduate school, so that the choice of the advisor can be as informed as possible. This process might be different from one department or institution to the next, but I believe my story is relevant to most graduate students who are about to embark on the search for the program and advisor that will be best for them. The takeaway message from this chapter is to think proactively when preparing to attend graduate school. Plan the selection of your advisor as much as possible. Do not wait until you get into graduate school to start this process; do
your homework beforehand. This proactive thinking and planning will ensure that you have a rewarding graduate school experience. Your advance efforts will definitely pay off in the end.

CHAPTER 3 GROUP DISCUSSION

Finding an excellent graduate thesis advisor requires a focused career objective and advance planning. In his chapter, Kermin provides many examples of his proactive approach to choosing a thesis advisor. Although an informed search for an advisor is often the best strategy, even the best-laid plans can be unexpectedly disrupted through no fault of the student.

In the video for this chapter, titled Changes, you will listen in as members of an entire lab group learn that their thesis advisor has accepted a faculty position at another university and will be moving the lab. Dealing with unexpected changes is also a part of graduate student life. The discussion activity created for this chapter will give you a chance to practice dealing with unexpected changes and the process of sorting out your available options in their wake. The video and accompanying materials for leading a group discussion on this chapter can be downloaded from the chapter 3 resource web page at http://dx.doi.org/10.5703/1288284315200.

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Dr. Hernández earned his BS and MS degrees in chemistry at the University of Puerto Rico–Mayagüez and graduated with a PhD degree in chemical education from Purdue University. After graduation he took a postdoctoral position in nanotechnology education at the Interdisciplinary Education Group of the University of Wisconsin–Madison's Materials Research Science and Engineering Center. While there he developed nanotechnology educational
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