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Home Stretch to Graduation

Elisabeth Pain
United States
18 April 2008

For months you've been focused on writing your dissertation. You've made scientific sense of several years of research data, pulled your results into nifty figures, and gone through several drafts of narrative. You've spent days checking the accuracy of the figures, the formatting of the references, and the spelling. For months, even years, your work has been driven by the anticipation of that magical moment when you realize that your dissertation is ready for submission to your examiners' committee.

That moment, when it comes, isn't always magical. That's partly because it's the start of a big transition in your scientific career, and big transitions are hard. And it's partly due to the nature of the transition: less final triumph, more ambiguous denouement. Making it through, and, importantly, coming away with a feeling of closure, a sense of fulfillment, and some enthusiasm for the next challenge means dealing with lots of annoying distractions and carefully traversing some uneven emotional ground.

REVISIONS

Handing your thesis off to your examination committee can be satisfying, but it's just one step of many before graduation. "I did not feel finished at all after submitting the thesis because I still had to do the public defense, followed by [the] editing of the final thesis for publication," writes Eric

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Seales, now a life scientist at a biotech start-up in Birmingham, Alabama, in an e-mail to *Science Careers*.

The importance of the final defense--or "viva voce examination," as it's called in the United Kingdom--varies across countries and institutions and with it the likelihood of unpleasant surprises on defense day. Outright failures are rare, but revisions are nearly inevitable. And that means stress.

I "was slightly worried ... that the corrections required to pass would be substantial," Tania Hansen, an Australian Ph.D. now doing a postdoc in cardiovascular sciences at the University of Leicester in the United Kingdom, writes in an e-mail to *Science Careers*. Her concern "was compounded by my leaving the country, as once your examiners report comes in you only have a limited time ... to make the changes, otherwise your thesis has to be re-examined," continues Hansen, who received a passing notification with minor revisions the day after she arrived in the United Kingdom to begin her postdoc. She had an electronic copy of her thesis, and all her raw data, packed in her luggage. "I ... got a friend in Australia to print out new copies, get them bound, and hand them in for me."

Major revisions can be a big emotional setback because they come at a time when you feel as though you're finished. "When there are fairly major revisions to do, that's extremely ... difficult because you have already run the race but you have to keep running," says Mary McKinney, a clinical psychologist who runs her own counseling practice for academics in Chapel Hill, North Carolina. "There is no motivation for this period because you have already passed." This may generate some frustration and bad feelings, especially if you think your supervisor should have anticipated the revisions or don't agree with the examiners' verdict. "Bite your tongue, don't say angry things," McKinney says. "Channel that anger into your computer or your lab experiments and get it done."

Even when revisions are minimal, they can still cause pain. "Fortunately, my committee did not require any changes," Seales says. But the graduate school administration required formatting and grammatical corrections that took several weeks. "I can assure you that this process will be much more of a headache and take much longer than you anticipate."



Eric Seales

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PULLED IN TWO (OR MORE) DIRECTIONS



Tania Hansen

Most Ph.D. students have a job lined up well in advance of graduation day, and moving out of the lab takes work. Many young scientists feel split between their Ph.D. obligations--making revisions, cleaning their lab space, or writing those last few papers--and their new job.

"I accepted my postdoc 6 months before I defended, but I didn't start my new job until 2 weeks after my defense," Rebecca wrote on the [Science Careers forum](#). But she had other obligations. "The biggest professional challenge was training the postdoc who was taking over my project, categorizing my lab notebooks and freezer stocks, and cleaning out my desk, while trying to fix my thesis at the same time."

Hansen, too, was pulled in several directions as she moved from Australia to the United Kingdom. It "was a big personal challenge. There was also a whole lot of administration hassles with my new job before I started, which was a nightmare." She also took a retail job after submitting her dissertation, which "focused my attention away from my thesis as I focused

on getting ready to leave the country for my new job," she says. "By the time I started my first job, I had not been in the lab for over 6 months ... and had to reorientate myself on how to do things ... and get used to thinking again."

MIXED FEELINGS

The home stretch to graduation brings a blend of emotions. "Finishing was just a relief as the whole writing process had been dragging on for ages," Hansen says. But she also felt a little "deflated," she adds. "No one really made a big deal about it, and that disappointed me." A sense of anticlimax is common, McKinney says. Along with some happy feelings, "all [Ph.D. students] experience a kind of a letdown ... about that feeling of this big project not being there anymore," she says. As Rebecca put it on the *Science Careers* forum, "I think after defending and then rushing to make the required changes to meet the graduate school's format, I was more relieved to have it finished than anything -- but I didn't feel the rush of emotion and accomplishment that I expected."

During this transition phase, there's likely to be some emptiness and loneliness, too. "During that time, the only science contact I had was my fiancé, who was still doing his Ph.D. ... I felt like I had submitted and everyone had forgotten who I was," Hansen says. Outside the lab, too, it might be necessary to work at reestablishing a social life. "When I had spare time, I initially didn't know what to do," Todd Graham, a master's graduate who is a research associate in a diagnostics start-up in central New Jersey, wrote on the *Science Careers* forum.

Sometimes, unsettling psychological issues surface once the weight of the thesis lifts. "The greatest professional/personal challenge I faced during this time was purely psychological," Seales says. He "had to deal with the letdown, the frustration and anger, of realizing that after years of hard work and sacrifice to earn my degree, that that Ph.D. didn't qualify me in any way to go out and get a good-paying 'real' job," he says. "The only way I overcame this feeling was when I left my academic postdoc less than a year into it and secured an industry job."

Hansen's experience was less traumatic, but some anxiety remained. "I don't remember it as a horrific time of uncertainty. Just something that is still hanging over your head when you think about it."

Above all, it's an excellent time for a vacation, Rebecca wrote on the *Science Careers* forum. "Definitely take some time off between finishing and starting your next job." But don't head off before the i's are dotted, the t's are crossed, and the dissertation is off to the binders. "Finish the changes needed for your thesis ... while you are still motivated to get it done," she continued. "Once you're in your new job, the last thing you will want to do is look at your thesis any more!"

Elisabeth Pain is contributing editor for South and West Europe.	Comments, suggestions? Please send your feedback to our editor .
Photos. Top: Rhea Borja. Middle, bottom: courtesy of the subjects.	DOI: 10.1126/science.caredit.a0800059

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