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A Ph.D. on Ph.D.'s

By [Mika Ono Benedyk](#)

What is the Ph.D. experience in the sciences? That's the question Louise McHeyzer-Williams has set out to address in her dissertation in the field of educational anthropology.

As a research assistant at The Scripps Research Institute (TSRI) and spouse of a principal investigator, McHeyzer-Williams has had plenty of opportunity to see individuals in the process of earning a Ph.D.

"Some people love every minute of it and others experience more of a roller-coaster ride," she notes.

McHeyzer-Williams, who has undergraduate degrees in applied sciences, nursing, and education and a master's degree in education, began to wonder what the typical Ph.D. experience was, what pathways students take through the doctoral process, and what meanings students give to experiences along the way.

When she looked through the literature, McHeyzer-Williams found studies on Ph.D.'s in the humanities, recollections of mature scientists, and



Louise McHeyzer-Williams is studying the experience of Ph.D. candidates in biology. Photo by Kevin Fung.

recommendations from government agencies on Ph.D. programs—but virtually no studies of the experience of earning the science Ph.D.

McHeyzer-Williams recognized the lack of data as a research opportunity.

"There are 28,000 Ph.D.'s awarded each year in the sciences," she says, "and graduate school is the point where individuals make the transition from being consumers to producers of knowledge. It seemed like a worthwhile topic."

McHeyzer-Williams began formulating the project with her advisor, educationalist Lyn Yates of University of Technology at Sydney in Australia, McHeyzer-Williams's country of origin. McHeyzer-Williams decided to use a methodology typical for anthropology: she would observe, interview, and interpret to the best of her ability, while remaining cognizant of her own role in the study.

"Traditionally, anthropologists go and tell the story, say, of a tribe in New Guinea," she says. "The tribe I am studying is a group of Ph.D. candidates."

McHeyzer-Williams recruited 40 graduate students in biology to participate in the study. While they are all in the process of pursuing their Ph.D.'s at the same institution, the participants are in different years of study, have different backgrounds, are of different nationalities, and are both male

and female.

Every three to four months over the period of a year, McHeyzer-Williams is asking the students:

- What led you to be doing a Ph.D. in science?
- Tell me about your experience during your Ph.D. education.
- Where do you see yourself in the future?

In addition, she is observing the students as they participate in seminars, courses, and even happy hours. "The only place I don't observe them is in the lab," she notes. "It's pretty hard to maintain the confidentiality of the participants if I show up regularly at their bench."

By this summer, McHeyzer-Williams hopes the data collection will be complete, so she can begin to identify key themes within the stories of individual students', among first, second, third, fourth, and fifth-year candidates, and within groups of students with similar backgrounds.

"The information I'm collecting should be useful for looking at ways to improve a science graduate program from the students' perspective," McHeyzer-Williams says. She hopes to publish the results in journals in both the fields of anthropology and science.

And how is McHeyzer-Williams's own Ph.D.

experience going? "I love it!" she says. "I couldn't wish for more. [The institution I'm working with] has been very responsive and supportive. Most importantly, the students are fabulous. They are busy, but willing to give to the study. They are honest and open. I come away inspired."



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