Teaching as Part of the PhD: The Harvard Experience

Introduction

I would like to start by thanking Dean Ray Spear, Margot Pearson, and John Clanchy for their warm hospitality during this, my first visit to Australia and to the ANU. I'm always aware when I lecture outside the United States that the problems we deal with may not be similar to those you face, and that the solutions we have come up with may not be applicable to conditions elsewhere. But I hope nevertheless that some of what I have to say will find resonance with you at a university where, as at Harvard, Ph.D. students are often simultaneously engaged in teaching and research.

Let me introduce my topic by giving you a little background about Harvard University and its graduate school. Then I'll say something about teaching by graduate students and the role of the Derek Bok Center in offering them training. Finally, I would like to raise two broader issues concerning the way graduate students learn and the responsibility the university has for fostering that learning.

What is our situation? Harvard University has approximately 6,000 undergraduates - fewer than the ANU - and 11,000 graduate students. That latter number looks high. However, most of those graduate students are in professional schools of law, medicine, and business. Actually, in the Faculty of Arts and Sciences, the number of Ph.D. students is about 1,800, or a little less than a third the number of undergraduates. Of these 1,800, most will teach by the time they receive their degree.

A heavy use of graduate students in the teaching ranks is characteristic of most American research universities. At Harvard, graduate students have taught undergraduates on a regular basis for more than fifty years. In fact the current president of the university, Neil Rudenstine, himself tutored in Renaissance English
literature when he was a graduate student in the Harvard English Department in the early 1960s. Teaching Fellows, as tutors are called at Harvard, depend on their teaching for a significant part of their income, just as the university depends on them to provide a skilled but relatively inexpensive source of labor. They perform three principal types of teaching: what you call tutorials and we call sections, attached to a large lecture course; what you call demonstrations and what we call laboratory supervisions; and finally what we call tutorials, on the Oxbridge model. In all these domains, Teaching Fellows make an essential contribution to the teaching life of the university.

But although the tradition of graduate student teaching is well established, the practice of training those teachers is far more recent. Formerly, the way graduate students learned to teach, at least at Harvard, was trial and error, sink or swim. There were some disasters early in the semester, as tutors fumbled their way through tutorials and demonstrations. But common wisdom among the faculty held that graduate tutors gained experience by making mistakes. This approach was reinforced by a common assumption that what mattered in teaching was subject mastery. If you understood the material in a course, you could communicate it. Some tutors did in fact develop into good teachers over time; but it was hard on them, and especially hard on their students.

**Training Teachers**

What has changed at Harvard is the notion that teaching can be taught. Here there are some milestones in the long process of development, two of which I will mention. The Bureau of Study Counsel was created shortly after World War II in order to promote student study skills, but also (in an ancillary role) to help train new tutors. I remember when I began to teach as a graduate student at Harvard in 1969, I went to the Bureau and participated in a group discussion about teaching methods. We listened to an audio tape of a tutorial in American literature - I believe the subject was
Henry James's *The Ambassadors* - and debated whether the tutor had been right to ask students about the author's intentions early in the tutorial, or whether he should have waited to the end and begun instead with questions concerning the plot.

Then twenty years ago, a new stage arrived in training Harvard graduate students to teach. The man who was then president of Harvard University, Derek Bok, journeyed to Saint Louis, Missouri, to the Danforth Foundation in quest of funds. This private foundation eventually made $200,000 available to Harvard to found a teaching center whose sole purpose would be to offer help to anyone teaching undergraduates - from the most novice graduate student to the most senior faculty member. That is still our mandate. The Derek Bok Center, which grew out of this original project and whose name honors its founder, gives advice and support to all those instructing Harvard undergraduates in any way.

I once read the minutes of the faculty meeting where the proposed teaching center was discussed, and they are fascinating. The Danforth grant had been secured by Harvard, but still awaited formal ratification by the faculty. On this issue the faculty was deeply divided. There were three groups. The first wanted to return the money to the Danforth Foundation, since they believed that to accept it would be to admit that Harvard teaching was in need of improvement - a proposition which was either untrue, dangerous, or both. These "Harvard purists," we might call them, made their case but did not prevail. A larger group, which we might term the "idealists," argued that Harvard should indeed take the money but instead of using it to create a teaching center, should give it directly to the departments. Funding a teaching center, they maintained, would be tantamount to rewarding the departments for bad behavior, since it was they who would benefit from improved teaching and it was they who bore the responsibility for maintaining it. Finally, there were the "realists," who argued that giving the money directly to the departments simply ensured that nothing new would be done to improve teaching. If there was to be any positive change in training graduate students, this group asserted, it would have to be initiated from a source
outside the departments. Ultimately, and to my way of thinking happily, the realists prevailed. In the twenty years since its founding, the Bok Center has managed to create training partnerships with a number of departments which I am convinced would never have begun the process of training their graduate students to teach on their own.

The drive to offer training to graduate students has been motivated in part by a sort of consumerism. Harvard students - or more properly, their parents - pay an enormous sum of money for the privilege of attending the university. Tuition is currently in excess of $18,000; room, board, medical insurance, and other fees add $11,000 on top of that. Even with federal loans, Harvard fellowships, and students working during term time, the costs are still very great, and expectations of a high quality of teaching (even in tutorials) correspondingly high.

If students and their parents are asked to pay such fees, the reasoning goes, they should get value for money, and "value" translates into teachers who have had some training already, rather than being asked to sink or swim.

But there is another, I would say more generous, impulse at work here. Harvard is gradually recognizing that training graduate students in the arts of teaching can also aid their graduates in the job market, and in fact constitutes an important part of their professional training. As more and more universities and colleges in the United States begin to make competence in teaching a criterion for hiring new faculty, predominantly research institutions such as Harvard are under increasing pressure to make sure that their Ph.D. students have the skills needed. In situations where there are two job candidates with equivalent research credentials, but where one can demonstrate successful teaching experience in graduate school, that candidate with the additional teaching qualifications may well get the job in preference to an equally bright but less experienced competitor.

The Derek Bok Center
So what is it that we do for our graduate students? The Bok Center, which I head, has a broad variety of services for its graduate student clients. We offer teaching orientations at the start of each semester for both inexperienced and experienced Teaching Fellows. The last one, which was held last month, attracted more than five hundred participants at some 35 separate sessions held over two days. We offer microteaching services at the start of each semester - sessions where a small group of graduate students each take turns making mock presentations to their peers, then have the opportunity to see themselves on videotape and hear from their fellow graduate students about the strengths and possible problems of their presentation. In ten days this September, we conducted microteaching for some 178 new graduate student teachers. We also offer a semester-long course for more experienced student teachers in the arts of discussion leadership, based on actual cases of classroom dilemmas, and jointly led by a member of the Bok Center staff and a professor from the Harvard Business School. We sponsor a number of interest or support groups, which bring Teaching Fellows with similar problems together once a month. And finally, we counsel and advise individual graduate students at any point in the semester on a walk-in basis. Out of a total teaching population of a little over one thousand graduate students each year, we are in contact with approximately 60 percent in one way or another. The training that we offer is practical. That is, we are much more interested in helping someone to improve classroom practice than in propagating the latest theories about teaching, though we can bring theory to bear when needed.

We also recognize that the needs of new graduate student teachers change over time, and attempt to adjust our programs to meet those needs. At first, most new teachers at Harvard (whether graduate students or junior faculty) are principally concerned with their authority in the classroom. Their greatest fear is that students will ask them a question and they will not know the answer. Since they themselves may doubt their abilities as teachers, they naturally assume that their students may discover that they are a bit of a "fraud" and do not belong in the classroom. But these
concerns are also reinforced, I believe, by a view of teaching as the transfer of content. Many beginning teachers assume that their job is to take course content, like the water contained in a glass, and pour it into the empty heads of the students. I will return to this conception of teaching in a moment; for now, let me simply say that it heightens the new teacher's fears of not being an "authority" in the proper way.

The next stage of development for new teachers is generally a concern for what I would call the "tools of the trade" - how to use overhead projectors, blackboard technique (how to write without standing in front of what you are writing), voice projection, and so forth. But finally, if all goes well, the novice teacher arrives at the stage where she or he is able to concentrate on the most essential thing in teaching: students. At this point, fears of not seeming enough of an authority, or of being unable to use the tools of teaching, yield to a concern for whether the students are learning, and an interest in how they learn. That is a stage we do all in our power to foster.

**Conclusion: Integrating Research and Teacher Training**

In conclusion, let me turn to the two broad issues of how graduate students learn, and how a center like ours structures its relations with academic departments. Some important parallels exist between the sort of training that graduate students typically undergo in their research and the sort of training we would like them to absorb on their way toward becoming good teachers. The first and perhaps most important is the idea of apprenticeship. Graduate students learn how to do original research primarily by being able to observe skilled researchers at work. Being the student of an eminent authority in your field, studying his own research, being allowed to participate, if only as an observer, in his or her ongoing work provides a model or template which the graduate student mimics, often unconsciously, in trying to reproduce the model of the university researcher. You work, you compare the results to the model, then you work some more in order to bring your efforts more closely into line with it. This is
the traditional method of learning many skills. It works for research, but it also works equally well for learning to teach. How? As you observe someone in the classroom, reflect on what they are doing, try it yourself, compare your performance to the one you have just witnessed, adjust what you do in consequence, and on into the next iteration.

Another parallel is that of problem-solving. Graduate students, like most academics, enjoy intellectual challenges. Yet somehow teaching is commonly thought to be devoid of such challenges, and instead more to resemble a reactive, rather boring activity like baby-sitting. Nothing could be farther from the truth. Successful teaching requires problem-solving of a high order - understanding student attitudes, anticipating problems in understanding the material, creating approaches which will heighten the possibility of "deep" learning, and so forth. Teaching, like research, can be intellectually interesting. That discovery is one which we very much want our graduate students to make early in their teaching careers.

In regard to our relations with departments, let me simply say that we seek wherever possible to include them in our planning, and to form partnerships with as many as we can. We do this partly out of necessity, since we lack the staff to supervise the training of Harvard's thousand graduate students. But even if we had the staff, I believe that it would not be advisable to take on this burden alone. Academic departments need to take responsibility for the teaching side of training their graduate students, just as they currently are responsible for developing their research skills. My hope - and I believe it is a hope shared here at the ANU - is that teaching can become an integral part of the Ph.D. program. For that to happen, we need to continue to educate the faculty. But I believe we will succeed. Thank you very much.

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