## **Popular Teachers and Great Ones**

Over the last few years, some university leaders have ignited firestorms of controversy with plans to reward faculty members who teach well. Much of the controversy has stemmed from any attempt to identify those outstanding educators through student ratings. At one Texas university, for example, the critics imagined that unscrupulous professors might try to buy high marks from their students with inflated grades or free beer.

Behind those controversies lies a much older struggle over the very meaning of good teaching. If there is a difference between good instructors and popular ones, what is it? My own definition stems from the work on students' intentions as they undertake their studies. A sizeable body of research has found that different students will take quite different approaches to their studies that generally fall into one of three broad categories, surface, strategic or deep. Only students in the latter category will consistently intend to understand, to think about implications, applications and possibilities, and only those students are likely to achieve the deepest learning.

That same research has found that the predominant approach that students take and achieve can be heavily influenced by the instruction. Some teachers produce lots of students with deep intentions while others rarely produce any. Thus, great teachers are those people with considerable success in fostering deep approaches and results among their students.

Such a definition, however, raises questions about the meaning of deep learning and doesn't necessarily identify those practices that will achieve that noble end. It also doesn't necessarily take into account the kinds of students a teacher faces. Some instructors will show more success simply because they are blessed with classes full of deep learners while others struggle to move mostly surface learners slightly closer to the deep end. Do those teachers who struggle with the hard core surface learners, moving them slightly, deserve the highest praise and recognition?

In our ongoing study (see What the Best College Teachers Do. Harvard University Press, 2004 for the initial publication of results and What the Best College Students Do. Harvard University Press, 2012 for the latest) we have used primarily John Biggs's Solo Taxonomy, the Rational Judgment Model of Patricia King and Karen Kitchener, and the concept of adaptive expertise to offer some definition of deep learning. We also recognize that sometimes the goals of teaching and learning are more spiritual than rational, concerned with the development of character and moral qualities, or focused on the refinement of skills. Because we conceive of learning as the process of building, using, and changing paradigms about how the world does or should work, we define deep learning in major part as those points when students change fundamental

paradigms, or learn to question them, realizing the problems they face in believing whatever they might believe.

Defining the practices that cultivate that kind of learning has proved to be more difficult, but to find an answer we have focused on the creation of environments rather than on the variety of different techniques that might foster those conditions. Over the last eight years, my colleagues and I have teased out of the myriad of individual teaching practices that we have observed, fifteen conditions of what we call a Natural Critical Learning Environment, and it is those conditions that we found in the classrooms, laboratories, field work and other educational venues of teachers with enormous success in fostering deep approaches and achievements in learning.

At the risk of oversimplifying, here are those fifteen: People learn best and most deeply when they try to answer questions or solve problems they find interesting, intriguing, important, or beautiful; they can try to answer the question or solve the problems then receive feedback and try again before anyone "grades" them on their efforts; they can work collaboratively with other learners struggling with the same problems; they have lots of opportunities to speculate about possible answers or solutions even before they know much about the subject, and to receive feedback on those speculations; they face repeated challenges to their existing fundamental paradigms; they can get support (emotional, physical, and intellectual) when they need it; they care that their existing paradigms do not work; they believe that they are in control of their own learning, not manipulated; they believe that their work will be considered fairly and honestly; they believe that their work will matter, that it will have significant consequences for themselves and/or their world; they believe that intelligence and abilities are expandable, that if they work hard, they will get better at it; they believe other people have faith in their ability to learn; they believe that they can learn; they have an opportunity to "do the discipline" before they fully "know the discipline (in other words, they have an opportunity to learn by doing and receiving feedback on their efforts); and they have an opportunity to learn inductively moving from specific example and experience to general principles, rather than from the general to the specific. Those conditions invite a variety of ways to achieve them.

We have lots of evidence that people are most likely to learn deeply when they are trying to answer their own questions or solve their own problems. Yet in a formal educational environment, learners are not usually in charge of the questions. To bridge that gap, the best teachers find ways to link their own disciplinary concerns and interests with those of the students. This special genius we saw in our best teachers was the ability to frame questions in ways that would both capture the students' imagination and challenge some of their most cherished paradigms. The best teachers found questions that were already on the minds of their students and helped them move to new inquiries that those students had never imagined. Through the power of the questions they raise, these outstanding teachers engage students in doing the discipline even before they know the discipline.

How then do you evaluate the quality of teaching? If we think of evaluation as the process of poising and answering questions, then our first task is to raise the appropriate questions and, second, to determine what would count as appropriate evidence to support a conclusion. In theoretical discussions in the Research Academy for University Learning at Montclair University, and now at the University of the

District of Columbia, where I serve as Provost and Vice President for Academic Affairs, we have identified four appropriate questions, each with its own requirements for good evidence. What is the quality of the learning that is suppose to take place? Do the students achieve that learning in appropriate numbers (taking into consideration where the students begin their studies on a scale from surface to deep)? Do they take their approaches because of the instruction or despite it? Does the instruction do them any major harm, such as inappropriately discourage them from further study in the field?

Can students tell the difference between "good teachers" and "popular teachers"? Probably, but only if they take deep approaches to learning and we ask them the right questions. In a particularly elegant experiment, Scottish researchers Hillary Tait and Noel Entwistle found that deep learners said they liked courses that pushed them to explore conceptual meanings and implications, whereas their surface learning classmates hated such experiences. Surface learners praised courses that valued recall while deep learners said they didn't learn much in those environments.

Student ratings have their limitations, yet it is precisely those limitations that call for clearer notions about what we mean by good teaching. If we think of excellent teachers as those people who help and encourage their students to take deep approaches to their learning, we can begin to identify those practices and perspectives that achieve those noble ends.



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