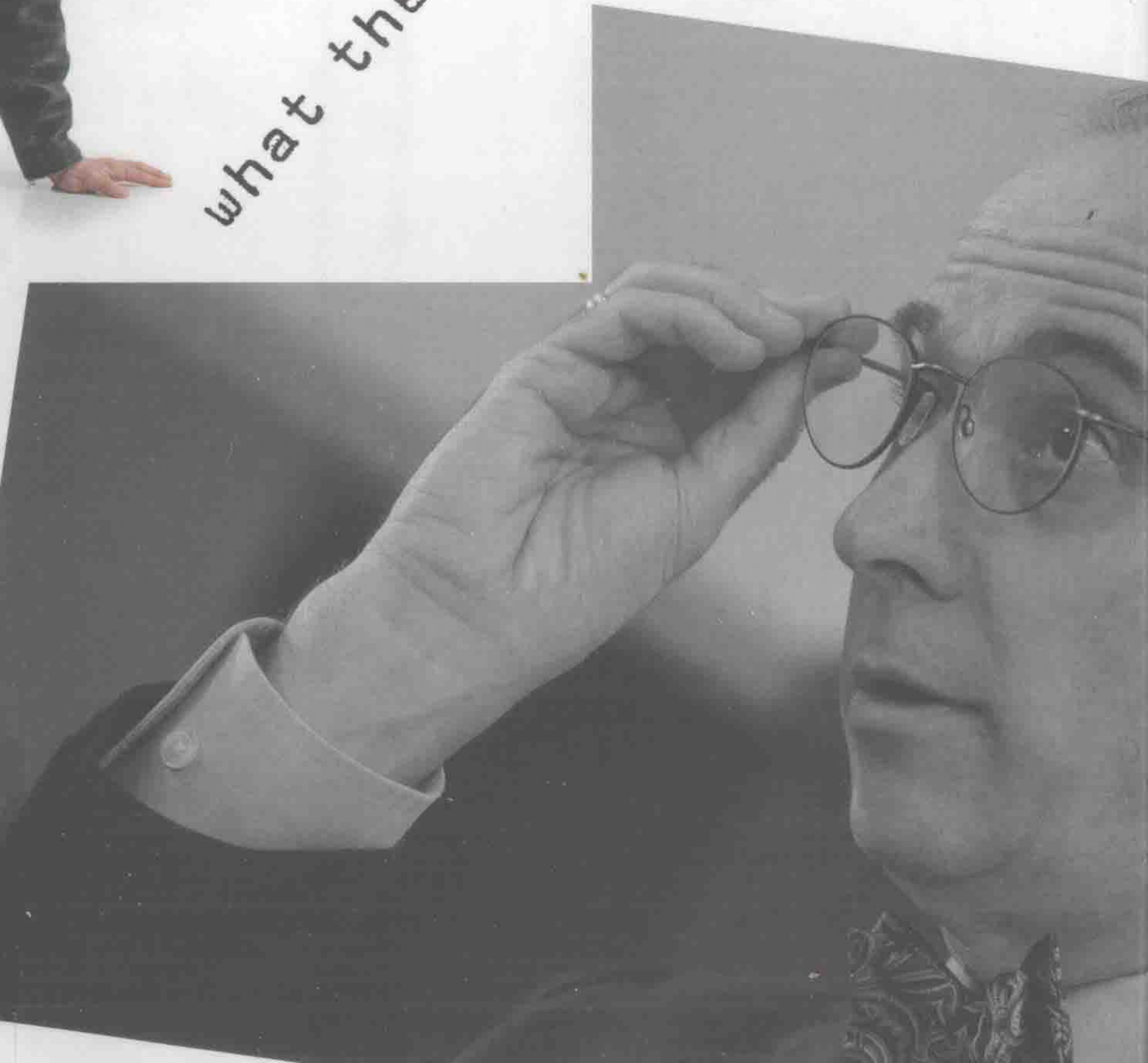


what the best college teachers do



WHAT THE  
BEST COLLEGE  
TEACHERS  
DO

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WHAT THE BEST COLLEGE TEACHERS DO

**To the memory of my parents, my first teachers**

WHAT THE BEST COLLEGE TEACHERS DO

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## INTRODUCTION: DEFINING THE BEST



When Ralph Lynn graduated from college in 1932, decked out in a variety of academic honors, he began doing other people's laundry to survive the depression. Ten years later, he acquired a correspondence-course teaching certificate and taught high school history classes for six months before entering the army in late 1942. He spent most of World War II in London looking at other people's dirty laundry—censoring soldiers' letters to keep them from revealing too much about troop movements to the folks back home—and reading history. When he came home in 1945, he asked his alma mater, Baylor University, to let him teach. Later, he went north to the University of Wisconsin to acquire a Ph.D. in European history. In 1953 he returned to Texas, where he taught for the next twenty-one years.

When Lynn retired in 1974, more than one hundred of his former students who now held academic posts paid him tribute. One of them, Robert Fulghum, who later wrote a much celebrated book claiming that he learned everything he needed to know about life in kindergarten, confessed that Ralph Lynn was the “best teacher in the world.” Another student, Ann Richards, who became the governor of Texas in 1991, wrote that Lynn's classes “offered us a window to the world, and for a young girl from Waco, his classes were great adventures.” They were, she explained some years after leaving the governor's mansion, like “magical tours into the great minds and movements of history.” Hal Wingo, who took classes from Lynn long before he became the editor of *People* magazine, concluded that Lynn offered the best argument he knew for human cloning. “Nothing would give me more hope for the future,” the



editor explained, “than to think that Ralph Lynn, in all his wisdom and wit, will be around educating new generations from here to eternity.”<sup>1</sup>

What did Lynn do to have such a sustained and substantial influence on the intellectual and moral development of his students? What do any of the best college and university teachers do to help and encourage students to achieve remarkable learning results? What does Jeanette Norden, a professor of cell biology who teaches the brain to medical students at Vanderbilt University, do that enables her students to learn so deeply? How does Ann Woodworth, a professor of theater at Northwestern University, lift her acting students to heights of thespian brilliance? Given that human cloning is not an option, is it possible to do some intellectual cloning, to capture the thinking of people like Don Saari from the University of California at Irvine, whose calculus students have sometimes claimed 90 percent of the A’s on departmental examinations? Can we capture the magic of Paul Travis and Suhail Hanna, who taught history and literature in a small freshwater college in Oklahoma in the 1970s and later at other institutions from Pennsylvania to Kansas, inspiring their students to new intellectual levels?

What makes some teachers successful with students of diverse backgrounds? Consider the case of Paul Baker, a teacher who spent nearly fifty years empowering his students to find their own creativity. In the 1940s Baker developed for an undergraduate theater program a course he called “Integration of Abilities,” a mind-charging exploration of the creative process that attracted as many future engineers, scientists, and historians as it did actors and other artists. By the late 1950s, he used the course to build the graduate program in theater at the Dallas Theater Center and later at Trinity University, revolutionizing theater productions around the world. By the 1970s he was employing the integrations method as head of the new performing arts magnet high school in Dallas, changing the lives of



many students whom others had dismissed as failures. In the early 1990s, now retired on a small ranch in East Texas, he took the same approach in creating a program for the local elementary school that pushed standardized test scores in that rural community to historic highs. How did he do it?

For more than fifteen years I have raised such questions in looking at the practices and thinking of the best teachers, those people who have remarkable success in helping their students achieve exceptional learning results. Much of the inspiration for the inquiry came from the extraordinarily successful teachers I have encountered in my own life. It has occurred to me that teaching is one of those human endeavors that seldom benefits from its past. Great teachers emerge, they touch the lives of their students, and perhaps only through some of those students do they have any influence on the broad art of teaching. For the most part, their insights die with them, and subsequent generations must discover anew the wisdom that drove their practices. At best, some small fragment of their talent endures, broken pieces on which later generations perch without realizing the full measure of the ancient wealth beneath them.

A decade ago, I confronted the tragedy of losing some of that wealth in the death of a talented teacher whom I never formally met. When I was a graduate student at the University of Texas in the early 1970s, I heard about a young professor, fresh from his own studies at the University of Chicago, who had students sitting in the aisles for the chance to take his class. Nearly every day, I saw a small army of people follow Tom Philpott from class to the departmental lounge, where they continued the conversations his teaching had started. In the late 1980s my son and daughter-in-law took Philpott's class in U.S. urban history, and I watched as it provoked new questions and perspectives. I listened with renewed interest to their stories of students—even many who were not registered for the



class—who crowded into the legendary teacher's classroom for a charge to their intellectual batteries. I wanted to interview Philpott about his teaching and possibly videotape some classes, but that chance never came. A short while later he took his own life. His colleagues eulogized him, his students remembered his classes, and perhaps a few of them who became teachers carried some pieces of his talent into their own careers. But for the most part his library of teaching talents and practices burned to the ground when he died. His scholarship on the development of neighborhoods in Chicago remains, but he never captured his own scholarship of teaching, and no one else did it for him.

In this book I have tried to capture the collective scholarship of some of the best teachers in the United States, to record not just what they do but also how they think, and most of all, to begin to conceptualize their practices. The study initially included only a handful of teachers at two universities, but eventually it encompassed professors at two dozen institutions—from open admissions colleges to highly selective research universities. Some taught primarily students with the best academic credentials; others worked with students who had substandard school records. Altogether, my colleagues and I looked at the thinking and practices of between sixty and seventy teachers. We studied nearly three dozen of them extensively, the others, less exhaustively. A few of the latter subjects were speakers in one of the annual series I organized at Vanderbilt and Northwestern that featured professors from other institutions who had achieved impressive teaching results. The subjects came from both medical school faculties and undergraduate departments in a variety of disciplines, including the natural and social sciences, the humanities, and the performing arts. A few came from graduate programs in management, and two came from law schools. We wanted to know what outstanding professors do and think that might explain their accomplishments. Most important, we wanted to know if the lessons they taught us could inform other people's



teaching. I have directed this book to people who teach, but its conclusions should also be of interest to students and their parents.

## DEFINING EXCELLENCE

To begin this study we had to define what we meant by outstanding teachers. That turned out to be a fairly simple matter. All the professors we chose to put under our pedagogical microscope had achieved remarkable success in helping their students learn in ways that made a sustained, substantial, and positive influence on how those students think, act, and feel. The actual classroom performance of the teachers did not matter to us; so long as the teachers did not do their students (or anyone else) any harm in the process, we cared little about how they achieved their results. Dazzling lecture styles, lively classroom discussions, problem-based exercises, and popular field research or projects might or might not contribute to the *telos* of good teaching. Their presence or absence, however, never dictated which people we investigated. We chose teachers because they produced important educational results.

What counted as evidence that a professor profoundly helped and encouraged students to learn deeply and remarkably? That question proved to be more complex. No one type of evidence would do in every case. We simply looked for proof of an educator's excellence, and if we found it, we used that person in the study. In some cases the evidence came in clearly labeled packages; in others, we had to collect it from unmarked jars and piece it together like anthropologists in search of a lost civilization. The types of evidence available depended on both the individual and the discipline.

Jeanette Norden from Vanderbilt University's Medical School and Ann Woodworth from the Theatre Department at Northwestern illustrate two different patterns of evidence. Norden's medical students face a standardized test of their learning in the form of the National Board of Medical Examiners and the United States



Medical Licensing Examination. Their group performance on sections of the exam that cover Norden's field provides a strong indication of her students' learning. So does the students' testimony about how well her class prepared them for the rotation in neurology, the National Boards, and careers in medicine. So do the examinations she uses in her classes, carefully and rigorously constructed instruments that take students through specific cases that require extensive knowledge, advanced understanding, and sophisticated clinical reasoning skills. And so do her colleagues' statements about how well her students are prepared for subsequent work. Norden has won every award for teaching granted by the medical school and selected by the students—some of the awards more times than the university will now allow. When Vanderbilt's chancellor established endowed chairs of teaching excellence in 1993, Norden was the first recipient of that honor. In late 2000, the American Association of Medical Colleges presented her with its Robert Glaser award for teaching excellence.

Ann Woodworth also came with a plethora of teaching awards—including appointment to an endowed chair of teaching excellence at Northwestern. But those recognitions, while important and substantial, gave us no direct evidence about student learning. Woodworth's field certainly emphasizes student performance, but it has no standardized measure of dramatic accomplishments. What convinced us that her teaching was worthy of careful study? First, we had a large body of testimony from her students, not just that she was entertaining or witty, but that she helped them achieve substantial results. We were impressed with the consistency of the testimony, with the kinds of praise the students offered ("you'll learn more from her class than from any other at this school"; "this class changed my life"), and with the perfect marks they gave her in response to questions about stimulating intellectual interest and helping students learn. Second, we had considerable evidence about



what Woodworth taught, information we gathered from her students, from her account of her courses, and from a term-long observation of one of her classes. Finally, we saw the performances of her students, both in final productions and in classroom work, in which her assistance often transformed a stale rendition into something magical.

Glowing reviews from students and colleagues alone were insufficient, however. We wanted indications from a variety of sources that a particular teacher was worthy of study. Although we did not insist that every instructor present exactly the same kinds of support, we did have two acid tests that all instructors had to meet before we included them in our final results.

First, we insisted on evidence that most of their students were highly satisfied with the teaching and inspired by it to continue to learn. This was no mere popularity contest; we were not interested in people because they were well liked by their students. Rather, we wanted indications from the students that the teacher had “reached them” intellectually and educationally, and had left them wanting more. We rejected the standards of a former dean who used to say, “I don’t care if the students liked the class or not as long as they learned the material,” which meant “I just want to see how they performed on the final.” We too were concerned with how students performed on the final, but we had to weigh the growing body of evidence that students can “perform” on many types of examinations without changing their understanding or the way they subsequently think, act, or feel.<sup>2</sup> We were equally concerned with how they performed after the final. We were convinced that if students emerged from the class hating the experience, they were less likely to continue learning, or even to retain what they had supposedly gained from the class. A teacher might scare students into memorizing material for short-term recall by threatening punishment or imposing excessively burdensome workloads, but those tactics



might also leave students traumatized by the experience and disliking the subject matter. Any teacher who causes students to hate the subject has certainly violated our principle of “do no harm.”

We recognize that some professors might be enormously successful in helping a few students learn but far less so with most of them. Colleagues have told us about former professors who stimulated their intellectual development but left most students flat. These people obviously valued those mentors and sometimes even modeled their own careers after them, taking pride in what they saw as the elite cadre of their satisfied students, and perhaps even believing that alienation of the masses set them on a higher plane. Such professors may have great value for the academy, but they did not make our cut. We sought people who can make a silk purse out of what others might regard as a sow’s ears, who constantly help their students do far better than anyone else expects.

Our second acid test concerned what students learned. This is tricky because it involved judgments about a variety of disciplines. We sought evidence that colleagues in the field or in closely related fields would regard the learning objectives as worthy and substantial. Yet we remained open to the possibility that some remarkable teachers developed highly valuable learning objectives that ignored the boundaries of the discipline and even, on occasion, offended many disciplinary purists—the medical school professor, for example, who integrated issues of personal and emotional development into a basic science class, helping to redefine the study of medicine. Indeed, most of the highly successful teachers in the study broke traditional definitions of courses, convincing us that success in helping students learn even some core material benefits from the teacher’s willingness to recognize that human learning is a complex process. Thus we had to apply a sweeping sense of educational worth that stemmed not from any one discipline but rather from a broad educational tradition that values the liberal arts (including the natural sciences), critical thinking, problem solving,



creativity, curiosity, concern with ethical issues, and both a breadth and depth of specific knowledge and of the various methodologies and standards of evidence used to create that knowledge.

In short, we included in our study only those teachers who showed strong evidence of helping and encouraging their students to learn in ways that would usually win praise and respect from both disciplinary colleagues and the broader academic community. But we also tried to include some educators who were operating on the fringes of current norms, defining learning wealth in important new ways. We also studied a few people who were highly successful with some classes and less so with others. For example, some teachers achieved wonderful results with large or small classes, advanced or beginning courses, but not with both. Such cases allowed us to make some comparisons between what worked and what did not.

We wanted to study teachers who had a sustained influence on their students, but the evidence for that proved difficult to obtain, especially in the early phases of our research. We talked with some students years after they had taken a particular professor and heard their testimonies about the way the class touched their minds and influenced their lives. We did not, however, systematically follow students; nor did we rely on those interviews alone to decide that someone deserved attention. Instead, we looked for something that would tell us more immediately that the impact was lasting. The concept of deep learners, first developed by Swedish theorists in the 1970s, helped us spot indications of sustained influence.<sup>3</sup>

We assumed that deep learning was likely to last, and so we listened closely for evidence of it in the language students used to describe their experiences. Did they speak about “learning the material” or about developing an understanding, making something their own, “getting into it,” and “making sense of it all?” We were drawn to classes in which students talked not about how much they had to remember but about how much they came to understand



(and as a result remembered). Some students talked about courses that “transformed their lives,” “changed everything,” and even “messed with their heads.” We looked for signs that students developed multiple perspectives and the ability to think about their own thinking; that they tried to understand ideas for themselves; that they attempted to reason with the concepts and information they encountered, to use the material widely, and to relate it to previous experience and learning. Did they think about assumptions, evidence, and conclusions?

Consider, for example, two sets of comments. One came from students who told us that the class “required a lot of work,” that the professor motivated them to “get it done,” and was thorough and fair, “covering,” as one student put it, “all the stuff that would be on the exam” and “never surprising us with problems we hadn’t seen.” The students dwelled on being successful “in the course” and offered high praise because the instructor helped them achieve that goal. While these comments were all quite favorable, they did not necessarily point to deep learning. In contrast, the second set of students talked about how they could “put a lot of things together now” or “get inside” their own heads. They stressed that they wanted to learn more, sometimes spoke about changing majors to study under a particular professor, and seemed in awe of and fascinated with how much they didn’t know. “I thought it was all cut and dried before I took this course,” one student explained. “It’s pretty exciting stuff.” They talked about issues that the course had raised, how they learned to think differently, how the course had changed their lives, and what they planned to do with what they had learned. They easily discussed arguments they had encountered, questioned assumptions, and distinguished between evidence and conclusions. Students mentioned books they had subsequently read because the course raised their interest, projects they had undertaken, or changes in plans. In commenting about a math class one student explained, “He didn’t just show us how to solve the