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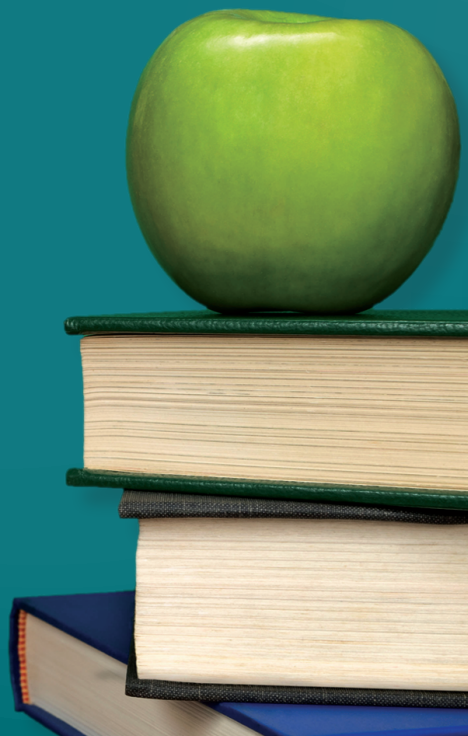
The Art of Teaching: Best Practices from a Master Educator

Course Guidebook

Professor Patrick N. Allitt
Emory University



PUBLISHED BY:

THE GREAT COURSES
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Chantilly, Virginia 20151-2299
Phone: 1-800-832-2412
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Patrick N. Allitt, Ph.D.

Cahoon Family Professor of American History
Emory University

Professor Patrick N. Allitt was born in 1956 and was raised in Mickleover, England. He attended John Port School in the Derbyshire village of Etwall, and he was an undergraduate at Hertford College, University of Oxford, from 1974 to 1977. He studied American History at the University of California, Berkeley, where he earned his Ph.D. in 1986. Between 1985 and 1988, he was a Henry Luce Postdoctoral Fellow at Harvard Divinity School, where he specialized in American Religious History. Since then, he has been on the history faculty of Emory University, except for one year (1992–1993) as a fellow at the Princeton University Center for the Study of Religion. He was the director of Emory's Center for Teaching and Curriculum from 2004 to 2009 and has been the Cahoon Family Professor of American History since 2009.

Professor Allitt is the author of four scholarly books: *The Conservatives: Ideas and Personalities throughout American History* (Yale University Press, 2009); *Catholic Intellectuals and Conservative Politics in America, 1950–1985* (Cornell University Press, 1993); *Catholic Converts: British and American Intellectuals Turn to Rome* (Cornell University Press, 1997); and *Religion in America since 1945: A History* (Columbia University Press, 2003). In addition, he is the editor of *Major Problems in American Religious History* (Houghton-Mifflin, 2000) and author of a memoir about life as a college professor, *I'm the Teacher, You're the Student: A Semester in the University Classroom* (University of Pennsylvania Press, 2004). He has written numerous articles and reviews for academic and popular journals, including recent book reviews in *The New York Times Book Review*. He has made six other courses for The Teaching Company: *The Rise and Fall of the British Empire*; *The Conservative Tradition*; *American Religious History*; *Victorian Britain*; *The History of the United States, 2nd*

Edition (with Professors Allen C. Guelzo and Gary W. Gallagher); and *The American Identity*.

Professor Allitt's wife, Toni, is a Michigan native, and their daughter, Frances, is (in 2010) a senior at Emory University. ■

John R. Hale, Ph.D.

Director of Liberal Studies
University of Louisville

Professor John R. Hale, Director of Liberal Studies at the University of Louisville in Kentucky, is an archaeologist with fieldwork experience in England, Scandinavia, Portugal, Greece, Turkey, and the Ohio River Valley. At the University of Louisville, Dr. Hale teaches introductory courses on archaeology and specialized courses on the Bronze Age, the ancient Greeks, the Roman world, Celtic cultures, Vikings, and nautical and underwater archaeology.

Archaeology has been the focus of Dr. Hale's career from his B.A. studies at Yale University to his doctoral research at the University of Cambridge, where he received his Ph.D. The subject of his dissertation was the Bronze Age ancestry of the Viking longship, a study that involved field surveys of ship designs in prehistoric rock art in southern Norway and Sweden. During more than 30 years of archaeological work, Dr. Hale has excavated at a Romano-British town in Lincolnshire, England, as well as at a Roman villa in Portugal; has carried out interdisciplinary studies of ancient oracle sites in Greece and Turkey, including the famed Delphic Oracle; and has participated in an undersea search in Greek waters for lost fleets from the Greek and Persian wars. In addition, Dr. Hale is a member of a scientific team developing and refining a method for dating mortar, concrete, and plaster from ancient buildings—a method that employs radiocarbon analysis with an accelerator mass spectrometer.

Dr. Hale has published his work in *Antiquity*, *Journal of Roman Archaeology*, *The Classical Bulletin*, and *Scientific American*. Most of his work is interdisciplinary and involves collaborations with geologists, chemists, nuclear physicists, historians, zoologists, botanists, physical anthropologists, geographers, and art historians. He has received numerous awards for his distinguished teaching, including the Panhellenic Teacher of the Year Award

and the Delphi Center Award. He has toured the U.S. and Canada as a lecturer for the Archaeological Institute of America and has presented lecture series at museums and universities in Finland, South Africa, Australia, and New Zealand.

Dr. Hale is the instructor of three Teaching Company courses: *Classical Archaeology of Ancient Greece and Rome*, *Exploring the Roots of Religion*, and *The Greek and Persian Wars*. ■

Jeanette Norden, Ph.D.

Professor of Cell and Developmental Biology
Vanderbilt University School of Medicine

Professor Jeanette Norden is a neuroscientist and Professor of Cell and Developmental Biology in the School of Medicine and Professor of Neurosciences in the College of Arts and Sciences at Vanderbilt University. She received her Ph.D. in Psychology, with training in neurobiology and clinical neurology from Vanderbilt University. She completed postdoctoral training at Duke University, the National Institute for Medical Research in London, and Vanderbilt University School of Medicine.

For nearly 20 years, Dr. Norden conducted research on GAP-43, a protein involved in nervous system development, regeneration, and plasticity. Since 1997, she has devoted her time to medical, graduate, and undergraduate education. She is currently the Director of Medical Education in the Department of Cell and Developmental Biology. She has been a maverick in medical education, stressing not only intellectual but also personal and interpersonal development in students. Her emphasis on personal development and her innovative approach in integrating "humanity" into basic science courses has been recognized at Vanderbilt, nationally, and internationally.

Dr. Norden has won every award given by medical students, including the Shovel (two times; given by the graduating class to the faculty member who has had the most positive influence on them in their four years of medicine), the Jack Davies Award (six times; for teaching excellence in the basic sciences), and the Outstanding Teacher of the Year Award (four times). She was also awarded the first Chair of Teaching Excellence at Vanderbilt University, and she was the first recipient of both the Gender Equity Award of the American Medical Women's Association and the Teaching Excellence Award given by the Vanderbilt Medical School.

Dr. Norden has also been recognized by both national and international awards and in publications. In 2000, she was the recipient of the Robert J. Glaser Award from the Alpha Omega Honor Society of the American Medical Association for Excellence in Medical Education. In 2004, she was highlighted as one of the most effective teachers in America in *What the Best College Teachers Do* (K. Bain, Harvard University Press). In 2008, Dr. Norden was recognized for her focus on humanistic concerns in her teaching with the Professional Award from The Compassionate Friends, an international support group for bereaved parents. Most recently, in 2010, she was awarded the John Chapman Award for Transformative Innovations in Medical Education.

Dr. Norden participates in numerous outreach programs in Nashville and the surrounding communities, going to schools and giving public talks on psychoactive drugs, the aging brain, and other topics related to the neurosciences. For a number of years, she has taught extremely popular courses in neuroscience for the Osher Lifelong Learning Institute at Vanderbilt. Dr. Norden travels extensively in the United States and abroad to give scientific presentations, talks, and workshops on neuroscience and teaching. ■

Stephen Nowicki, Ph.D.

Professor of Biology
Duke University

Professor Stephen Nowicki is Bass Fellow and Professor of Biology at Duke University, where he also holds appointments in the Department of Psychological and Brain Sciences and in the Neurobiology Department at Duke University Medical Center. He completed both his undergraduate work and a master's degree at Tufts University and received his Ph.D. from Cornell University. Prior to taking his position at Duke, Professor Nowicki was a postdoctoral fellow and assistant professor at the Rockefeller University.

Professor Nowicki has published more than 90 scholarly articles in academic journals and he is co-author of *The Evolution of Animal Communication: Reliability and Deceit in Signaling Systems*, published by Princeton University Press. He has served as President of the Animal Behavior Society and as Chair of the Division of Animal Behavior of the Society for Integrative and Comparative Biology. Professor Nowicki introduced a thorough revision of the approach to teaching introductory biology at Duke University, a curricular reform effort that has received widespread recognition. He is also the author of *McDougal Littell Biology*, a leading high school textbook, published by Holt-McDougal.

Professor Nowicki has been awarded fellowships from the Mary Flagler Cary Charitable Trust, the Alfred P. Sloan Foundation, and the John Simon Guggenheim Foundation. He also is the recipient of the Robert B. Cox Distinguished Teaching Award from Duke University. ■

Scott E. Page, Ph.D.

Leonid Hurwicz Collegiate Professor
of Political Science, Complex
Systems, and Economics
University of Michigan
External Faculty Member, Santa Fe Institute

Professor Scott E. Page received a B.A. in Mathematics from the University of Michigan and an M.A. in Mathematics from the University of Wisconsin–Madison. He then received his M.S. in Business and his Ph.D. in Managerial Economics and Decision Sciences from the J. L. Kellogg School of Management at Northwestern University. He completed his Ph.D. thesis under the guidance of Stan Reiter and Nobel Laureate Roger Myerson. He has been a professor of economics at Caltech and the University of Iowa and is currently Leonid Hurwicz Collegiate Professor of Political Science, Complex Systems, and Economics at the University of Michigan. He is also a senior research scientist at the Institute for Social Research, a senior fellow in the Michigan Society of Fellows, and associate director of the Center for the Study of Complex Systems.

While a graduate student, Professor Page began visiting the Santa Fe Institute (SFI), an interdisciplinary think tank devoted to the study of complexity. He has been actively involved at SFI for more than 15 years. Currently, Professor Page serves as an external faculty member of SFI. For a dozen years, he, along with John Miller, has run a summer workshop for graduate students on computational modeling.

A popular advisor and instructor, Professor Page has won outstanding teaching assistant awards at the University of Wisconsin and Northwestern University; the Faculty Teaching Award at Caltech; and the Faculty Achievement Award for outstanding research, teaching, and service at the University of Michigan.

Professor Page's research interests span a wide range of disciplines. He has published papers in leading journals in economics, political science, ecology, physics, management, public health, and computer science. He has served on dissertation committees for students in more than 10 departments. In recent years, his core interest has been the various roles of diversity in complex adaptive systems, such as economies and ecosystems. He is the author of two books on these topics, *Complex Adaptive Systems* (with John Miller) and *The Difference: How the Power of Diversity Creates Better Firms, Groups, Schools, and Societies*. Both books were published by Princeton University Press.

Professor Page has spoken on complexity and diversity to many leading companies, universities, and nonprofit organizations, including the World Bank, the Kellogg Foundation, Yahoo!, and the National Academies. He lives with his wife and two sons in Ann Arbor, Michigan. ■

Steven Pollock, Ph.D.

Professor of Physics
University of Colorado, Boulder

Professor Steven Pollock is Associate Professor of Physics at the University of Colorado, Boulder. He did his undergraduate work at MIT, receiving a B.Sc. in Physics in 1982. He holds a master's and a Ph.D. in Physics from Stanford University, where he completed a thesis on "Electroweak Interactions in the Nuclear Domain" in 1987. He did postdoctoral research at NIKHEF (the National Institute for Nuclear and High Energy Physics) in Amsterdam from 1988–1990 and at the Institute for Nuclear Theory in Seattle from 1990–1992. He spent a year as senior researcher at NIKHEF in 1993 before moving to Boulder.

From 1993–2000, Professor Pollock's research work focused on the intersections of nuclear and particle physics, with special focus on parity violation, neutrino physics, and virtual strangeness content of ordinary matter. Around the time he received tenure at CU Boulder, Professor Pollock began shifting his attention to the newly developing discipline-based research field of physics education research . This field now represents his full-time physics research activities.

Professor Pollock was a teaching assistant and tutor for undergraduates throughout his years as both an undergraduate and graduate student. As a college professor, he has taught a wide variety of university courses at all levels, from introductory physics to advanced nuclear and particle physics, including quantum physics (both introductory and senior level) and mathematical physics, with intriguing recent forays into the physics of energy and the environment and the physics of sound and music.

Professor Pollock is the author of *Thinkwell's Physics I*, a CD-based introductory physics "next-generation" multimedia textbook. He became a Pew/Carnegie National Teaching Scholar in 2001 and is currently pursuing

classroom research into replication and sustainability of reformed teaching techniques in (very) large lecture introductory courses. Professor Pollock received an Alfred P. Sloan Research Fellowship in 1994, the Boulder Faculty Assembly (CU campus-wide) Teaching Excellence Award in 1998, and the Marinus G. Smith Recognition Award in 2006. He is also the recipient of the University of Colorado "Best Should Teach" award in 2006 and the University of Colorado Presidential Teaching Scholar award in 2008. He has presented both nuclear physics research and his scholarship on teaching at numerous conferences, seminars, and colloquia. He is a member of the American Physical Society, the Forum on Education, and the American Association of Physics Teachers. ■

Michael A. Roberto, D.B.A.

Trustee Professor of Management
Bryant University

Professor Michael A. Roberto is the Trustee Professor of Management at Bryant University in Smithfield, Rhode Island, where he teaches leadership, managerial decision making, and business strategy. He joined the tenured faculty at Bryant after serving for six years on the faculty at Harvard Business School. He also has been a Visiting Associate Professor at New York University's Stern School of Business.

Professor Roberto's new book, *Know What You Don't Know: How Great Leaders Prevent Problems before They Happen*, was published by Wharton School Publishing in 2009. It examines how leaders discover hidden problems and unearth bad news in their organizations before such problems escalate to become major failures. His 2005 book, *Why Great Leaders Don't Take Yes for an Answer*, was named one of the top-10 business books of that year by *The Globe and Mail*, Canada's largest daily newspaper. The book examines how leaders can cultivate constructive debate to make better decisions.

Professor Roberto's research focuses on strategic decision-making processes and senior management teams. He also has studied why catastrophic group or organizational failures happen, such as the *Columbia* space shuttle accident and the 1996 Mount Everest tragedy. He has published articles based on his research in *Harvard Business Review*, *California Management Review*, *MIT Sloan Management Review*, *The Leadership Quarterly*, and *Group and Organization Management*.

Professor Roberto's research and teaching have earned several major awards. His 2004 article, "Strategic Decision-Making Processes: Beyond the Efficiency-Consensus Tradeoff," was selected by Emerald Management Reviews as one of the top 50 management articles of 2004 from among 20,000 articles reviewed by the organization that year. His multimedia

case study about the 2003 space shuttle accident, titled "Columbia's Final Mission," earned the software industry's prestigious Codie Award in 2006 for Best Postsecondary Education Instructional/Curriculum Solution.

Finally, an article based on his research earned him the Robert Litschert Best Doctoral Student Paper Award in the year 2000 in the Academy of Management's Business Policy Division. On the teaching front, Professor Roberto earned the Outstanding MBA Teaching Award at Bryant University in 2008. He also has won Harvard's Allyn A. Young Prize for Teaching in Economics on two occasions.

Professor Roberto has taught in the leadership-development programs of and consulted at a number of firms, including Apple, Morgan Stanley, Coca-Cola, Target, Mars, Wal-Mart, Novartis, The Home Depot, Federal Express, Johnson & Johnson, Bank of New York Mellon, and Edwards Life Sciences. He also has presented at government organizations, including the FBI, NASA, and the EPA. Since 2004, Professor Roberto has served on the faculty at the Nomura School of Advanced Management in Tokyo, where he teaches in an executive education program each summer.

Professor Roberto received an A.B. with Honors from Harvard College in 1991. He earned an M.B.A. with High Distinction from Harvard Business School in 1995, graduating as a George F. Baker Scholar. He also received his D.B.A. from the Harvard Business School in 2000.

In the past, Professor Roberto worked as a financial analyst at General Dynamics, where he evaluated the firm's performance on nuclear submarine programs. He also worked as a project manager at Staples, where he played a role in the firm's acquisition integration efforts.

In his spare time, Professor Roberto enjoys gardening, running, hiking, and cooking. He lives in Holliston, Massachusetts, with his wife, Kristin, and his three children, Grace, Celia, and Luke. ■

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The Art of Teaching: Best Practices from a Master Educator

Scope:

Teaching is one of the essential activities of a civilized society. Every generation must pass on the immense accumulated heritage of the past by teaching, sometimes in formal situations and sometimes informally. Moreover, most of us, at one time or another in our lives, serve as teachers—in our roles as parents and coaches or in the workplace, presenting new procedures at a meeting or training new employees. This course, *The Art of Teaching*, is designed primarily for classroom teachers, but it will also help anyone who is interested in teaching or who is sometimes required to teach in his or her profession. By and large, the principles of good teaching remain the same in any learning situation.

The Art of Teaching represents somewhat of a departure from the usual Teaching Company format in that it includes video interviews with six of The Teaching Company's master professors—all dedicated, award-winning teachers—and with a number of students, who are often the real experts on what's good and bad in education. Each lecture includes a toolkit for teachers that highlights practical suggestions they can take into the classroom and begin using right away.

Lectures 1 and 2 of the course introduce the topic of teaching as a career, the broad range of learners teachers might encounter, and the essential qualities of a good teacher. From there, the next 14 lectures turn to practical teaching matters, including developing an appropriate teaching persona; planning the work before the class begins; managing aspects of teacher-student relationships; using high-tech and low-tech tools effectively; teaching time management, reading, and note-taking skills; encouraging students to participate; as well as coaching and one-on-one teaching to name a few.

In Lecture 17, we consider students' views of how they learn best, what they like and dislike about teachers, and how they think teaching could be improved. This lecture emphasizes the need for teachers to put themselves

in the students' shoes and try to view the teacher-student encounter from the other side. In Lecture 18, we look at teacher assessments of students, including various types of exams, and student evaluations of teachers. Lecture 19 discusses various methods for maintaining your enthusiasm as a teacher over the course of your career. Lecture 20 explores the challenges of teaching, especially for college professors, most of whom have never been formally trained in teaching. Lecture 21 offers numerous suggestions for injecting creativity into the classroom by engaging students with unusual assignments or—surprise!—sending them to the library.

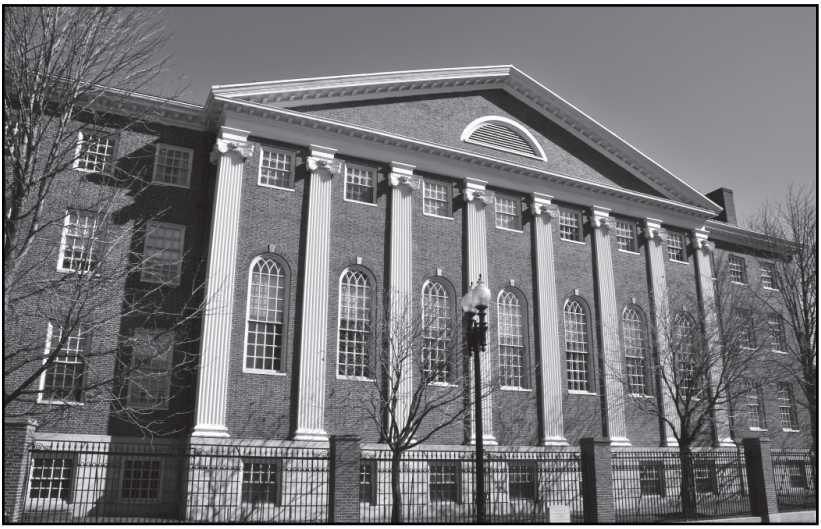
The last three lectures of the course step back and take a broader look at the field of education and the qualities that make a good teacher. Lecture 22 exposes some common myths and half-truths about education, such as the idea that learning is easy or that most people are willing learners. In Lecture 23, we look at some of the common characteristics of our master teachers and learn how they feel about their work. Finally, in Lecture 24, we look at the role of teachers in preserving and enriching our world, both materially and culturally. With the rapid pace of innovation we experience today and the increasing emphasis on lifelong learning, the contributions of teachers to society are unlikely to diminish. ■

Successful Teaching

Lecture 1

This course is designed to help people in a wide variety of teaching situations because we believe that the general principles of teaching are more or less exactly the same whatever the format. Although you always have to adapt to the particulars of the circumstances you're in, the principles of good teaching remain more or less the same.

Teaching is a wonderful way to make a living and a wonderful way of life. Teachers pass on to students, whatever their ages, new ideas that help them in their careers and in their intellectual lives. This course on the art of teaching offers a different approach to what you may have come to expect from The Teaching Company. It is designed to help people in a wide variety of teaching situations because, for the most part, the principles are universally applicable.



Great teaching isn't confined to the university. Parents, coaches, managers, and mentors are teachers as well.

This course is primarily designed for active teachers, but the information will be useful to anyone interested in teaching and anyone who is sometimes required to teach informally. We explore principles relevant to many teaching situations and see how to apply those principles in practice. We also consider a number of practical questions, such as how much material should be included in a one-hour lecture and how teachers can handle an unresponsive class. Furthermore, we look behind the scenes of the teaching profession and ask hard questions about the training, ability, and practice of university-level teachers.

During my career at Emory, I've attended many workshops at the university's Center for Teaching and Curriculum. I also served as director of the center for five years. I've had the opportunity to mentor and observe many professors in the classroom, and I've developed strong ideas about teaching, many of which are considered old-fashioned. Colleagues in the profession often disagree on such issues as cold calling in the classroom or the appropriate degree of personal involvement with students.As we'll see, different subjects call for different teaching approaches, as do differences in teachers' ages, stages in their careers, and so on. Despite the many differences in the styles and subjects of the professors consulted for this course, we found a surprising number of similarities in what makes a good teacher.

If you want to be a good teacher, think about the best teachers you have encountered and how they inspired you.

Education has expanded to take up more years for more people, especially in the advanced industrial nations. America and Europe have shown that it's possible to achieve universal literacy. Other countries are catching up. Specialization complicates the task of teaching and makes the challenge of teaching *well* all the more difficult. The rapid pace of innovation also creates educational challenges. Teachers must pass on not just a body of knowledge but the ability to think critically, because much of the particular knowledge taught will become obsolete. Educators are also concerned with the need to create lifelong learners.

If you want to be a good teacher, think about the best teachers you have encountered and how they inspired you. The drive for self-improvement and the willingness to accept criticism are essential in teaching. It often takes a long time to realize whether or not you're teaching effectively. It is possible to be impressive, even theatrical, but not memorable. Before the course begins, you need to decide what you want the students to know when it has ended. You should also ask yourself: What do I want these students to know five years from now? That question will help you focus on important issues.

Whatever your teaching situation, we offer this course to help you improve your practice and to inspire you to teach better, more effectively, and with greater self-awareness. Our goal is for you to achieve the "teacher's high." ■

Toolkit

- The art of teaching benefits from the experience of the teacher.
- The drive for self-improvement and the willingness to accept criticism are essential in teaching.
- Before your own course begins, you need to decide what you want the students to know when it has ended and what you want them to remember five years from now.

The Broad Range of Learners

Lecture 2

Students … who have the chance to do a little bit of teaching gain a far clearer understanding of what it is that their teachers are up against. Nearly always, the opportunity to do some teaching makes the student teacher into a better student as well because they've started to explore the process from both sides.

Although the teachers filmed for this course are all college professors, we want to emphasize that this course is about teaching in a broader sense. For some people, teaching is a profession, but nearly everyone has to teach others from time to time; indeed, teaching is one of the most fundamental human activities. In this lecture, we'll look at situations in which informal but effective teaching has obvious benefits.

Every teacher has to be a good learner, so it's worth thinking about how to cultivate effective learning habits. We're all tempted by laziness and procrastination, but it's important to push ourselves beyond our comfort zones. In the end, every person has to educate himself or herself. Teachers can help point us in the right direction and encourage us, but our own willingness to learn is ultimately decisive.

Parents are nearly everybody's first teachers, and the better they do the job, the more their children will compete advantageously in the wider world. As children master language, they show almost insatiable curiosity; good parents try to answer as many of their children's questions as possible. Research shows that learning disparities between the most favored and the most disadvantaged children open up very early in life. By age 3, children who enjoy intellectual stimulus have drawn far ahead of their less fortunate peers. When schools take over children's formal education, parents remain vital as moral guides and as anchors of stability.

By school age, children can and do learn from one another, and as they mature, opportunities for group learning increase. Many schools and colleges take advantage of the fact that better students make useful tutors for their less

Parents can give their children a head start by being receptive to their questions and encouraging their curiosity.

gifted peers. In turn, the tutors learn their subjects well and gain a greater understanding of what teachers are up against.

Small group work at the college level is often a useful prelude to cooperative learning at work. In the workplace, clear communication and energetic teaching of new skills and concepts are vital parts of management. As adults specialize by profession, they often lose the breadth that their earlier education fostered. Continuing education is particularly important to highlight different ways of seeing the world. For teachers, the ability to adapt to new audiences is vital.

The capacity for self-criticism is essential for professional improvement.

As mentioned in the last lecture, the capacity for self-criticism is essential for professional improvement. It's very tempting to think, at a certain point, that you know enough. Lifelong learners resist that feeling, even if it threatens their sense of professional mastery. Teachers of such subjects as business are especially concerned with creating lifelong learners, because the particular knowledge they teach may become

obsolete quickly. Even teachers of history must address events and trends in the rapidly changing world. For example, the feminist movement forced us to rethink our view of earlier ages. Teachers must also pass on to their students particular styles of thinking, such as the scientific method. These styles are nearly always counter-instinctual.

I believe that there is no limit to how much you can learn. Learning is cumulative, and your capacity to learn more increases with more knowledge. Although good teachers can help a great deal and can inspire their students to become lifelong learners, in the end, the initiative has to come from the student. ■

Toolkit

- There is an intimate and symbiotic relationship between learning and teaching.
- We should give as many of our students as possible the opportunity to teach others.
- Teachers need to be first-rate learners, and learners need to learn how to teach themselves.
- We live in a world that has created many new incentives for us to become lifelong learners.
- Luckily, lifelong learning is a pleasure, and we've never had more resources to help us do it than we have now.
- We nearly all have to be teachers of some kind—as parents, among our peers, at schools, and at work. If you're in a business environment, encourage employees who have special skills or training to be available as a training or support resource for other employees.
- The benefits of teaching well are both practical and psychological—everyone who is learning something new feels mentally stimulated and stretched.

Starting Out Right

Lecture 3

Knowing the students names gives them a sense of belonging. … Research shows that students tend to work harder and respond more positively if they believe that the instructor views them as individuals rather than simply just as faces in the crowd.

You've probably heard the expression "You never have a second chance to make a good first impression." That's particularly true in education. The first day of a class, workshop, or team meeting gives students a sense of what the experience as a whole will be like. It is depressingly common to find teachers who spend the first day droning their way through the syllabus, but this approach is boring and can easily communicate the wrong feeling about the course as a whole. By contrast, a lively introduction to the topic gives students a feeling of purposefulness and interest and energizes them for the work to come.

Teaching works best when teachers and students have a relationship, and relationships begin with knowing each other's names. Use the first class to explain your subject, to illustrate its fascination, and to show why it matters. Share a couple of curious anecdotes about your subject to spark interest. Even students who try to be cool or act jaded find it difficult to resist enthusiasm in their teachers and will be drawn in.

Most subjects are also relevant because the exploration of complex issues leads students to think critically about other matters and develop the skills needed for lifelong learning.

In professional education, the subject usually speaks directly to some aspect of the students' professional development or preparation for qualifying exams. In liberal arts education, you must show why the subject matters by drawing connections to other disciplines and to the students' overall education. Most subjects are also relevant because the exploration of complex issues leads students

to think critically about other matters and develop the skills needed for lifelong learning.

A good teacher challenges the students from the first day. On the first meeting of a class, demonstrate your expertise in some aspect of the subject matter to establish your intellectual authority in addition to your teaching authority. Establish your expectations for the course and describe the classroom environment you favor. Keep in mind that the classroom is not a zone of equality; it is a hierarchy and you are at its head.

On the first day, I introduce the concept of "special time," the idea that the class is set apart from the students' everyday lives and is devoted to a difficult but rewarding activity. Tell the students (or team members or employees) what kind of work they will be required to do in and out of class. Provide this same material on a syllabus or a list of goals and assignments.

Be sure to get into the content of the course on the first day. If it is a lecture class, give an introductory lecture to the course as a whole. If it is a seminar, devise an activity that gives the students a feeling for the work they will be doing from week to week. If possible, use an activity that will help you ascertain the range of experience or mastery of the subject in your class. For example, ask one student to read a relevant short passage to the group, then ask others to paraphrase the passage. ■

Toolkit

- The first meeting is critical—plan for it carefully.
- Establish a one-to-one relationship with each student or with as many as possible. Learning your students' names is the best way to do this.
- Show your enthusiasm for the subject.
- Show why the subject is important.
- Give the students a sense of the difficulty and challenge of the material.

- Demonstrate your expertise.

- Set rules for the learning environment and make it clear that you will not tolerate annoyances, such as surfing the Web or texting in class.

- Above all—engage the students in the subject itself immediately.

The Teacher's Persona

Lecture 4

The teacher's persona has to do with establishing both respect and leadership. And this is easier to do for some people than others. The personality you bring to the endeavor depends both on your own personality characteristics and the specific learning project, the classroom, the office, the workplace, or the athletic field.

Knowing students' names enhances learning and helps shape an environment of mutual respect in the classroom. Despite this mutual respect, however, you are still the teacher and the one who lays the ground rules. To be effective in establishing your leadership, you must develop a teaching persona and find ways to foster participation and enthusiasm among students.

Great teachers always develop a teaching persona. In effect, they establish a repertoire of actions and attitudes to use on the job. These behaviors must include the willingness to draw students' attention, to be authoritative, and to be helpful. Creating a teaching persona helps you establish the kind of relationship you and your students will have.

Great teachers find ways to create and sustain a distinctive tone and mood for their classes. Aim for a mood of dramatic tension.

The teaching persona excludes the possibility of making special friendships or of treating students as peers. The teaching persona always includes a disciplinary function, even at the university level. Use your own distinctive characteristics in developing your teaching persona so that it is similar to your actual personality. Gender and age are both significant in creating a teaching persona, as is dress. Dress and manner can help establish a sense of distance between teacher and students. Keep your persona consistent so that students always know what to expect.

Despite the artificiality of the teaching persona, it is essential to establishing rapport with your students. It is much more important to get to know your students intellectually than socially. Find out how well prepared students are by asking how many comparable courses they have taken previously. Use impromptu tests near the beginning of the semester to see how readily they grasp the basic concepts of the course. Take notes after each class to track student responses and to identify those who appear to be struggling. This record is especially important if you grade students on participation.

Establish a relationship of benign inequality, with clear guidelines and boundaries. It's fine to be friendly but always in the context of the work. Making friends with certain students may be tempting, but it is actually a form of professional misconduct. It's easier to treat all students equally when you keep the whole group at arm's length.

The mentoring relationship is not incompatible with the "no friends" rule. Outside of class, it's appropriate to give students educational and work-related advice.

Great teachers find ways to create and sustain a distinctive tone and mood for their classes. Aim for a mood of dramatic tension.

Teachers use a number of strategies to enhance participation and enthusiasm. Flatter the students into working hard and praise those who offer genuine insights. Refer to good points made previously by individual students. Couch criticisms in the form of mitigated praise. Try to balance seriousness with good humor and enjoyment. Make use of anecdotes, especially those that make sense only when the students have grasped the point. ■

Toolkit

- A teaching persona makes it easier for the teacher and for the student to meet each other's expectations. You can do and say necessary things to a student as "teacher" more easily than you can as yourself. Your student can respond with more freedom.

- Use your own distinctive characteristics in developing your teaching persona. These may include your age, your gender, and other characteristics, such as regionalisms or national origin.
- Don't underestimate the importance of dress in creating your teaching persona.
- Keep your teaching persona consistent.
- Use your teaching persona to develop an appropriate relationship and a suitable rapport with your students.
- Personal friendships with students are forbidden and, in many instances, a form of professional misconduct.
- Mentoring is one kind of one-on-one relationship between student and teacher that is acceptable and rewarding.
- Take pride in helping students succeed, but don't forget their limitations.
- Don't act as though you're like students—emphasize the differences, not the similarities.
- Not all students will achieve great results. That's no discredit to you if you did what you could.

Planning the Work

Lecture 5

In the early stages of anyone's teaching career, there are more surprises. Careful and methodical planning cuts down on the degree of uncertainty and it helps give anxious teachers more confidence—and at first nearly all teachers are anxious.

Before any teaching project begins, you need to think about what will have happened by the time it ends. What do you want the students to learn, how do you intend to teach it, what problems do you anticipate, and what methods will you use to overcome these problems? How will you break the material down into manageable units so that students will be able to learn it in the style of your discipline? New challenges and points of interest should confront the students at each step, but nothing should take *you* by surprise. Careful and methodical planning cuts down on the degree of uncertainty in the classroom and gives teachers more confidence. Before teaching a course, decide what students will take from it when it is finished.

Break down the material into manageable units. Teachers are often so familiar with the material that they sometimes forget it is new and alien to the students. Research shows that students learn most at the beginning of a class, so talk about important points up front. Sequence the material as logically as possible. The "logic" of the sequencing (for example, chronological or thematic) depends on the content of the course, and be prepared to explain why the course is structured as it is. Leave time for review of material learned so far, and do not be afraid of repetition. At the end of each class period, summarize what you have just taught.

Even the most sober subject matter will benefit from the introduction of carefully pre-planned drama. Don't put yourself in a straitjacket by planning down to the fine details; you should retain the ability to adapt to contingencies.

Beware of trying to cram too much material into each class. There's no value in "covering" everything if the students are unable to retain it. Anticipate

which aspects of the course students will find most difficult and plan ways to address those issues.

Try to get into the frame of mind of your students, who are learning what you know well for the first time. You might try taking a course yourself outside of your comfort zone. Outstanding teachers think about how their work looks from the students' point of view because learning happens best when both parties are invested in each other's success.

We may never teach the class we want but must adapt to the classes we actually get. You'll become familiar with the type of students who come to your classroom and their strengths and weaknesses. Set goals for yourself and your students and communicate them clearly. Your plan should show students what they will be doing in each class meeting without overpowering them with details.

We may never teach the class we want but must adapt to the classes we actually get.

Create a structure that enables you to distinguish among the best students, the average ones, and the weakest. Decide on some way to ascertain mastery of the material so that you can evaluate your success as a teacher. Your system of evaluation should be designed to reflect differences among the students. You should also set goals for yourself, with the idea of correcting what you know to be your own weaknesses. ■

Toolkit

- Planning is essential for success in any teaching venture—classroom, athletic coaching, or business training.
- Set goals for yourself and your students and know what you hope to achieve by the end of your course before it begins.
- Break the material down into manageable units.
- Sequence the units logically.

- Leave time for review and repetition.

- Don’t plan too many details but allow room for flexibility and to take advantage of unforeseen learning opportunities and difficulties.

- Don’t try to cram too much material into each meeting. It’s better for students to *understand* the material than to have more material thrown at them than they can comprehend.

- Anticipate where your students will struggle and plan for it.

The Teacher-Student Relationship

Lecture 6

The very geography of the classroom itself establishes a special kind of relationship because normally the teacher is at the front of the class facing the students and all the students are sitting facing him or her. Straightaway the creation of a hierarchy is made by the geography of the room itself.

Teaching is a relationship based on inequality. The teacher knows something the student doesn't and has the responsibility to teach it. The teacher also has the authority to judge the quality of the student's learning. At the same time, students have the right to expect conscientious teachers. This lecture is devoted to the question: What sort of relationships should teachers and students have with each other? Should they get to know each other as individuals, or should they maintain a sharp barrier? We will consider these questions from the students' point of view.

In Britain, there is usually a distinct separation between teachers and students. In America, many teachers prefer to stress the egalitarian aspect of the teacher-student relationship. But in either case, the teacher-student relationship begins in a classroom. Most teachers locate themselves in the front of the classroom, where they can see and be seen. Creating ground rules establishes the classroom as a special place for the work of learning.

Students are experts on good and bad relationships with teachers because they are constantly making comparisons. Students like to have access to their teachers outside of class. Make yourself available during established office hours or make arrangements to meet students at other times. Many students appreciate teachers' willingness to advise them on issues relating to their current difficulties or future careers. However, it's important not to let students manipulate your willingness to lend a sympathetic ear. Don't, for example, let them plead boyfriend troubles as a reason for not handing in work on time.

Teachers in any learning situation need to draw a fine line between taking an interest in their students and becoming personally involved with them. Most students recognize that differences in age and power make certain kinds of interaction inappropriate. For some students, teachers are symbols of the anxieties they face; thus, they would prefer to leave their teachers behind when class is done.

Teachers need to conquer the temptation to want to be liked. Having students like you is a welcome side effect when it happens, but it must not be a teacher's objective. Students do not come to class to make a friend, and friends don't grade or evaluate each other. Always ask yourself: Am I helping the students learn?

Teachers in any learning situation need to draw a fine line between taking an interest in their students and becoming personally involved with them.

You can use the hero worship that often emerges in the teacher-student relationship to your advantage by holding students to high standards that they will achieve to please you. What you do in class can have effects for many decades—just think of some advice a teacher gave you that you still remember years later. ■

Toolkit

- Never forget that the students are developing an attitude toward you at the same time as you're developing one toward them. Try to get a sense of what they want, and when it's useful, gratify them.

- In deciding on how to interact with your students, you should always make sure that your manner and attitude and the behaviors and habits you expect of them are going to help them learn the subject of the course and the required way of thinking.

- You should never show signs of favoritism or special preference, which is a perversion of the proper relationship and deeply unsettling both to the favorite and to those who are not favorites.

- On the other hand, you should show an interest in your students, learn their names, help them in ways appropriate to your unequal status, and show that they mean more to you than merely names on a list. Eating with them, mentoring, offering advice in office hours, and writing recommendations for students are central to most professors' lives and rightly so. (We'll revisit these questions later in the course in the lecture on one-on-one teaching.)

- Be mindful of the risks of personal or intimate relationships between teachers and students. Some sorts of issues, concerns, and aspects of their lives are inappropriate for a student to share with a teacher and vice versa. Keep the focus on the learning.

- Finally you should keep in mind the implications for the future of your relationship with your students—practical, professional, and moral. Ideally, you will still be guiding them years after you meet for the last time you should keep in mind the implications for the future of your time.

Dynamic Lecturing

Lecture 7

Lecturing or making presentations is a type of performance. Of course it's less dramatic than theater. It's not a branch of show business, but it does have show business elements and the more you can make your presentation commanding and gripping the better it's going to be for your capacity to convey the information.

Lecturing has been one of the basic ways to communicate information throughout the history of education. In this lecture and the next two, we'll see what makes a lecture or a formal presentation good and show how you can work toward becoming an effective lecturer. We'll also look at the mistakes lecturers commonly make and ways to avoid them. It's important, if you are a teacher or a presenter, to be self-critical and to ask yourself, often and honestly, whether your lecturing is as dynamic as it could be.

A good lecture or presentation is interesting and informative. It makes one clear point and supports it with evidence and illustrations, while persuading listeners of its essential rightness. When you lecture, communicate the idea that there's no place you'd rather be than in the classroom, speaking on this topic. Nothing matters more in the giving of a good lecture than your passion and commitment to the subject.

Practice voice inflection and variation; avoid putting students to sleep by speaking in a monotone. Try to identify and suppress such verbal tics as "um," "you know," and "sort of." These hinder your ability to project confidence and make you less persuasive. Videotape your presentations and lectures to identify your vocal tics and repetitive gestures, then work to eliminate them.

Try to answer students' questions as they come up or turn them into opportunities for audience involvement. At the beginning of the course, tell students that you welcome their questions. Don't ask for questions, but accept them when they arise out of the flow of your lecture. Turn questions

back on the questioner by leading him or her through the stages of the issue you are describing; help questioners see that they know most of the answer already.

Always be ready to explain issues more than once or in more than one way. Use familiar analogies, such as those drawn from popular culture, whenever possible. Rhetorical questions also stimulate interest and can often be more informative than declarative sentences.

Help questioners see that they know most of the answer already.

Communicate a mood of enthusiastic engagement by your body language; stand upright and don't always stand still. Try to include some interactivity with your audience. Ask a student to define an important term or to sketch a map on the board. Even if they don't make a good job of it, the activity draws students in, often provides a few moments of light relief, and breaks up the monotony of one-way lecturing. Be sure that you have enough time for your conclusion and that you are not hurrying at the end. ■

Toolkit

- Begin a lecture by assuming that you are competing for your audience's attention, and offer them something stimulating or controversial right away.
- Pay close attention to your audience to make sure you are holding their attention and interest. Minimize reliance upon notes so that you maintain eye contact in order to do this.
- Don't read your lectures.
- If you're giving a series of lectures, note how one follows logically from the other and establish links to the next in the series to show how the material is building and developing.

- Regardless of your mood or preoccupations, bring the full force of your enthusiastic energy and delight to the subject.

- Be brave. Videotape yourself and study critically your mannerisms—both physical and vocal. Work to stop those that interfere or distract.

- Self-awareness is vital. Learn to be aware of all aspects of your presentation: how you look, how you sound, how you move, and what kind of impression you are making on the audience.

- The lessons in this lecture apply to every teaching situation, whether you are training a group of coworkers, giving a presentation to a board of directors, or even homeschooling your child. If you're not engaging, the teaching won't succeed.

- Your objective with every lecture or presentation is to make the audience members glad that they were there and to make them feel that they not only learned something but that they enjoyed themselves while doing it.

Teaching with PowerPoint

Lecture 8

PowerPoint [has] created entirely new opportunities that were previously unavailable. On the other hand, PowerPoint can be overused and it can be misused. You'll hear one of our professors … describing it as a wonderful ... and another professor talking about what he calls death by PowerPoint.

In the past decade, PowerPoint has become one of the most widely used of all teaching technologies, but it can also be overused and misused. Here, we'll talk about using PowerPoint and other technologies to improve your teaching. As always, ask yourself, What does my audience gain by seeing these slides in addition to listening to me, and what does it lose?

PowerPoint has obvious benefits for teachers, but it is important to think carefully about how you should use it. Keep PowerPoint presentations simple. Noises, added colors, fancy borders, and so on are distracting. While planning, ask yourself how you intend the students to divide their attention between you and the slides. Tell your audience when to look at the screen and when to look at you. Use the on/off button to ensure that students' attention is periodically returned to you.

Make sure the PowerPoints work for you rather than replace you.

Most slides should contain just one idea, one diagram, or one or two pictures. In fact, PowerPoints work well for presenting individual pictures to illustrate a lecture. Don't leave a slide on the screen when you are no longer referring to it. Make sure the PowerPoints work for you rather than replace you. They should enhance your lecture, not become a substitute for you.

PowerPoints can be used to generate class discussion. I find PowerPoint extremely useful for giving students a feel for different historical eras and for learning to scrutinize photographs and pictures more critically than they

would do if merely glancing at them in a textbook. Having the whole class look at and speculate about a picture together is a dynamic activity.

Send the PowerPoints from a lecture to your students as an e-mail attachment so that they can review them. If you insist on students' attendance in class, make sure that the PowerPoints alone do not carry the entire message. Limiting the text and graphics to the most abbreviated form will help students who attended the class review the lesson but will be much less useful to those who were absent.

Plan every lecture and presentation so that, if necessary, you can do it without the PowerPoints in the event of a technical failure. Keep in mind, too, that there's no substitute for an actual person speaking persuasively in front of a group. The more teaching technology you use, the more time you're likely to devote to it instead of to the students. More is not necessarily better.

Use PowerPoint judiciously to enhance your classes. The success of learning relies on the student-teacher relationship; don't allow technology to interfere with that relationship. ■

Toolkit

- Make sure you're in charge of the technology and that it's not taking over your job or causing you to devote more time to the machines than to the people in the room.

- Keep the PowerPoints bold and simple. Make sure they add to your class beyond what you could do without them, but do not become powerless if the machinery fails.

- Keep text to a minimum; resist the urge to use the gimmicky options.

- Use images to spark discussion or illustrate your points.

- Turn it off when you are finished with it—don't allow slides to remain up in front of the class, as they will distract.

- Know at all times what your students are looking at, and make sure they are looking at you, not at the screen, for part of every class.

Demonstrations, Old and New

Lecture 9

Every teacher ought to be able to use the board effectively. In some respects it's more versatile than PowerPoint because you can't change a PowerPoint slide at short notice whereas you can erase from the board or add something and tinker with your own effects.

A general trend in college-level teaching today is the move away from uninterrupted lectures and toward interactivity. Educational research supports the idea that interactive environments stimulate better learning and retention. Teaching tools that promote interactivity include such low-tech equipment as whiteboards and higher-level technology, such as e-mail, clickers, Web pages, podcasts, and blogs. All these tools tend to engage students more than PowerPoint, and all contribute to an interactive classroom environment that stimulates better learning and retention.

Older and simpler visual technologies, particularly the blackboard or whiteboard, remain useful. Whiteboards are more versatile than PowerPoint presentations because they can be changed at will. Before you leave a topic, emphasize the major points, assumptions, or conclusions by underlining or circling key words on the board. Don't write unnecessary material on the board or flipchart. Use titles and headings to structure your work; underline or box off key statements. As much as possible, avoid talking while facing the board. Ask your students if they can hear you when you are talking and drawing at the same time.

Low-tech teaching tools still have their place. Unlike a PowerPoint presentation, chalkboards and flip charts can be edited and expanded on the fly.

Old-fashioned show-and-tell still has plenty to offer as a teaching tool. Students remember more when visual elements are used in addition to speech and text. Demonstrations also have obvious benefits. They illustrate abstractions with concrete examples and reconcile the obscure with everyday life.

One of the newer classroom technologies is the clicker, which enables teachers to gather instant statistical data. Clickers are transmitter devices that look similar to a television remote control. The clicker allows students to respond to a teacher's questions by pressing a button. The responses are transmitted instantly to the teacher's computer and organized into a graph. Teachers can use clickers to test how well a class has grasped a certain concept. Clickers can also be used to gather data for statistical analysis by the class.

E-mail offers teachers flexibility in course management. With one message, teachers can communicate to all the students in class. You can change an assignment or follow up on a question you were unable to answer earlier. You can also contact a sub-group of the class, such as a group of students who all made the same mistake on a test. Students can send you responses to assignments, which you can then use as discussion points in class. Let students know how often you check e-mail and the hours during which you will not reply.

Podcasts and the Internet can also extend the work of a class outside the immediate room.

Podcasts and the Internet can also extend the work of a class outside the immediate room. Michael Roberto often meditates on his lectures in a podcast that goes out automatically to the students in his course. The Internet is a marvelously convenient source of information, but it offers no quality control. As libraries become increasingly digital, it's possible to guide your students directly from your syllabus to an article text with a single click of the mouse. Finally, libraries of old video clips in the public domain can be used to enrich classes in history and other disciplines. ■

Toolkit

- As teachers today, we need to be careful to take advantage of the best of what is new and the best of what is old.

- There's still no substitute for a lively, enthusiastic individual describing, explaining, and demonstrating to his or her class and showing every sign of enjoying it.

- There's plenty of life left in old blackboards, whiteboards, and flipcharts. They let you do spur-of-the-moment pictures and diagrams and let you work things out at a speed that students will find more manageable. They also give students the opportunity to show what they know and to teach others.

- Now that we have PowerPoint, e-mail, the Web, clickers, and podcasts, of course it's a good idea to use them as well. But don't lose sight of the questions: What does this technology or this method of teaching add? How will it help my students to learn? Would the class have been any worse if I had used none of this technology.

Teaching the Critical Skills

Lecture 10

The most important qualities in a student are willingness to work hard, to not procrastinate, and to avoid distractions. But even with the will they don't always have the skill.

If seminars and discussion classes are going to be worthwhile, the students must be well prepared, which means that we, as teachers, must cultivate in them good work habits. We also need to be inventive in teaching them how to read, how to take notes, and how to think.

The most important qualities in a student are willingness to work hard, to avoid procrastination, and to avoid distractions. But even those who have the will do not always have the skill. Every stage of education is hamstrung by procrastination. Teachers need to create intermediate deadlines to mitigate this problem.

Reading is a skill, a slow pleasure, an exercise in patience and attention.

Literacy is still the foundation of education; only students who read more than the minimum will become truly well educated. Encourage your students to read away from computers, cell phones, iPods, and TVs. Students need to learn to adapt to the slower pace of printed words and to practice reading uninterrupted for long periods. In the workplace, it's critical to teach people to read quickly, to grasp vital information and skim what's less useful, and to share the information in a concise way.

Reading aloud and rereading are keys to full understanding. Asking a student to read aloud enables you to judge his or her ability and degree of preparation. Students who read aloud without expression can rarely paraphrase what they have just read, because they do not catch the author's tone of voice. The reading-aloud exercise works on at least four skills: vocabulary, meaning, tone, and secondary meanings.

Note-taking is also a critical skill for school and the workplace. When I lecture, I always distribute an outline that follows this general pattern: main theme, subordinate theme, detail. Spend some class time explaining this method and encourage students to outline their readings in the same way. Offer a diagrammatic version of one lecture, then assign students to make one of their own. Such diagrams emphasize connections, while also allowing a view of the whole. Ask students to write a one-paragraph summary of each chapter or one line per page of a reading. It's unfortunate that rote learning and recitation have gone out of fashion in education. Such exercises were ideal for developing memory and for learning the basics.

It's unfortunate that rote learning and recitation have gone out of fashion in education.

Teachers must show their students the roles played by sentences, paragraphs, parentheses, footnotes, chapters, prefaces, and conclusions. Few students today recognize how authors communicate. Select a suitable passage for intensive study, then ask students to explain what function is served by particular paragraphs. Do they inform, explain, or persuade? Show students the logic behind footnoting and other conventions of academic writing. ■

Toolkit

- As a teacher—at whatever level—don't assume that students can already read properly. In most cases, they cannot. Their first reading gives most of them an approximate sense of an author's meaning. You must then get them to think more carefully about what is written, how it is written, why it follows certain rules, and what it should sound like when read aloud by a reader attuned to its meaning and mood.

- Just as it is vital when lecturing to keep in mind what is going on through the students' eyes as well as your own, so with reading you must really see it, along with all its difficulties, through their eyes.

- Reading and note taking form the foundation for communication, critical thinking, and decision making. Look for natural ways to teach and practice these skills. Try requiring review and revision of notes to make sure they accurately summarize the content.

- Encourage students to memorize**.**

Engaging with Discussion, Part 1

Lecture 11

One of the challenges of teaching is to introduce students to precise use of language to get the terms exactly right, to imbue them with a need to provide definitions and to make them realize that the way in which they use language in everyday life casually and informally isn't good enough in areas which require a great deal more intellectual precision.

Just as everyone needs to learn how to read well, we also need to learn how to participate effectively in discussions, whether about history or medicine or marketing. Discussion turns passive learners into active learners, who take more responsibility for their education and learn better in the short and in the long run.

Teachers must show students how to use language precisely and speak persuasively so that they can exchange information and demonstrate the relevance of their ideas. In my seminars, I devote class time to clarifying ambiguities and analyzing arguments in reading assignments. You should also spend time defining vocabulary and pointing out different meanings of familiar words. Close reading is also a good use of seminar time; coax students to recognize how authors use metaphor, analogy, and hyperbole and how they create ambiguities. Laying logical traps for students helps them recognize the need for precision and careful thinking.

Seminars work best when all students participate. Studies show that if you make participation voluntary, more than half the students in any group will never speak up. Call on students who do not volunteer to prevent a minority from dominating the discussion and to check that everyone has prepared adequately. At first, seminar exchanges seem to be mainly back and forth between the teacher and one student, but as the students gain confidence, they will begin to debate each other. Encourage students to ask questions when they do not understand an issue and praise them for doing so.

There are various ways to induce participation by all students. Give each student three playing cards or poker chips. Each time a student speaks, he or

she places one on the table. Restrain excessive talkers by asking them to take minutes and give periodic summaries of the discussion so far. If you don't call on students by name, only a few will speak, and many will feel that they can safely neglect the reading.

Discussion offers the chance to analyze argumentation. Ask students to tell you an author's primary argument in one sentence. If they can't, scrutinize the reading together until you reach agreement on what the argument is. Ask what evidence the author uses to support his or her argument. Ask how the author tries to persuade the reader to accept his or her view and what makes the argument effective or ineffective.

Discussion also helps students understand the thought processes that went into the writing of a book or article. Discussion allows students to practice thinking through problems and organizing key concepts. It also gives them a chance to test and argue about ideas.

Discussion offers the chance to analyze argumentation.

Students respond well to the seminar format when they believe that the teacher is genuinely listening to what they say and is not merely looking for pre-digested answers to all questions. Seminar teaching requires a great deal of flexibility if you are to keep on topic while accommodating digressions. In planning for seminar classes, reread the material carefully, make sure you can quickly put your hand on key passages, and make a list of the issues that must be covered.

Seminars require tact and discretion on the teacher's part. Be sensitive about when to ease off in questioning particular students. ■

Toolkit

- Discussion allows students to practice thinking through problems, as well as organizing key concepts. It gives them a chance to test ideas and to argue ideas. The ability to respond thoughtfully and critically to diverse points of view is a lifelong skill that has to be taught in and beyond the classroom.

- Praise students for shrewd comments or for accurate summaries. Positive reinforcement goes a long way in encouraging students and demonstrating what is working well.

- If students blunder, give them an early opportunity to restore their credibility. Studies show that the longer students go without speaking—or speaking again—the less likely it is that they will volunteer to participate.

- Asking questions is obviously a great way to stimulate a discussion, but make sure that the questions are open-ended (not yes or no) and that you leave time to think—up to 30 seconds is okay. Sometimes you may need to frame a new question to lead the way into a topic.

Engaging with Discussion, Part 2

Lecture 12

All these things help students to take ownership of the things they're learning, that is to say moving from a general sense of what they mean to a very specific and precise knowledge that stays with them and guides them in their subsequent work in the discipline.

In the last lecture, we considered the benefits of seminars as a medium for rigorous learning and the need to press students for definitions, to compel them to participate, to keep them alert and on edge, and to prompt them to think about how the work they have been reading was originally composed. In this lecture, we'll look at a few closely related issues, including the use of small groups, the case method, and the role of humor. These all contribute to helping students take ownership of their learning, moving them toward precise knowledge of their chosen disciplines.

Small-group work offers students the chance to participate in more intense discussion than is possible in the full group, but it should be monitored closely if it is to remain relevant. Break a group of 15 into 5 groups of 3 and give each group a specific question and a time limit for discussion. Move from group to group, listening to how students address the issue. Keep your comments to a minimum unless asked for input. Ask a spokesperson for each group to report to the class. You might also ask each group a different question based on their reading.

Small groups can be effective for role-playing and offer valuable opportunities for public speaking and impromptu argumentation. You can also rotate groups among questions posted in different parts of the room. This activity may prompt shier group members to participate.

One hazard of this kind of student-centered learning is the possibility of students' uncritical acceptance of a falsehood. Another hazard is the "passenger phenomenon"– tendency of some students to let others in the group do all the work.

The case method is a special type of seminar, in which a group of law, business, or medical students reads a case beforehand and comes to class ready to answer the teacher's questions. This approach offers a dry run for the sort of work these students will do as professionals. The case method works only when the students are well prepared.

Discussion, especially when combined with reading, lectures, and laboratory work, helps students take "ownership" of the discipline. Every discipline has its own characteristic way of approaching problems, but they are rarely intuitive. For example, most elements of the scientific method, such as the need for control groups and the importance of the falsifiability of theories, have to be learned over time.

The case method … offers a dry run for the sort of work these students will do as professionals.

Few students study such disciplines as anthropology, sociology, or psychology before college, and their first encounter with them is an encounter with unfamiliar methods. Students begin to "own" the discipline when they can outline accurately how an analytical question should be studied and when they can warn against obvious fallacies, experimental missteps, and interpretive blind alleys. This is a long, slow but ultimately gratifying process. The adoption of the discipline's point of view is a prelude to professionalization.

As we've seen many times thus far, good humor is also an essential aid to learning, especially in seminar settings where students feel a greater sense of exposure. ■

Toolkit

- Seminars are extremely useful for close analysis of texts and for getting students to think systematically about argumentation, vocabulary, rhetoric, and style, no matter what the subject matter.

- Participation in seminars, even if coerced at first, helps students refine their public speaking skills, their precision with language, and their ability to persuade one another.

- It is only effective if the participants are adequately prepared. Create incentives, and reward intelligent participation generously, to stimulate an engaged seminar atmosphere.

- Don't let students simply say what they "feel." Insist that they say what they think and that they can justify these thoughts.

- Talking intelligently about a topic is a key step on the road to taking ownership of the material and of developing professional effectiveness.

- As a seminar leader, be demanding but leaven your rigor with humor.

Cogent Thinking and Effective Writing

Lecture 13

Learning how to write is like learning how to play the violin: It takes constant practice. If you don't practice very often, you won't play it well. If you don't write very often, you won't very well.

In an earlier lecture, I said that if a student can't describe or explain something, he or she doesn't really understand it. It is equally true that students cannot really understand issues if they cannot write about them clearly and persuasively. We live in an intensely literate society, and teachers at every level must take responsibility for teaching students how to write better.

As a result of multiple-choice exams, decreased emphasis on formal grammar instruction, and other changes in education, students today have difficulty expressing themselves in writing. Teachers must reintroduce students to the magical character of writing, which many of them have forgotten through familiarity.

When students begin writing projects, remind them of their responsibility to communicate their ideas to the reader. Encourage students to imagine an intelligent non-specialist as their reader. Distinguish between written communication among people with and without a shared knowledge base. Ironically, most of the writing students do is for people who know more about the subject than they do, but the purpose of academic writing is to tell people things they don't know. Distinguish between language used in conversation and that used in writing, but emphasize that clarity and simplicity are always preferable to complexity.

Decide at the beginning of the semester how much class time you want to devote to writing. Writing exercises in and out of class can contribute to the development of good writing habits. Don't squeeze writing in as an afterthought, especially if the writing will be graded. The first time you give a writing assignment, hand out a sheet explaining the issues students need to consider and set aside about 30 minutes to go over it.

Encourage students to think in terms of paragraphs. Consider, for example, an assignment to write a paper on the factors that led to American entry into World War II. The first step is to identify the main points of the paper, each of which will be embodied in a single paragraph. Ask students to list some factors on the board, then show how each one can be the basis of a paragraph. Advise students to write the introduction last and include the most important points in this paragraph.

Explain the conventions of writing in your discipline, but remind students that the essentials of good writing are the same under all circumstances.

Explain the conventions of writing in your discipline, but remind students that the essentials of good writing are the same under all circumstances. Historical writing, for example, should usually be organized chronologically and should strive for impartiality. Scientific disciplines often favor passive verbs as a way to emphasize that experiments can be duplicated by others. In business, a statement of the purpose and most important point of the communication in clear, direct language is usually the most effective way to begin, followed by more detailed information.

As in reading, teach students how to summarize in writing. Assign students to summarize an article in 100 words, 500 words, and 1,000 words to test their ability to isolate primary, secondary, and tertiary issues. Have students describe an object, such as a pencil, as accurately as possible without naming it. Have students write a 30-word paraphrase of a 100-word statement that preserves its meaning. Have students rewrite in the active voice a passage whose verbs are passive. ■

Toolkit

- Point out to students that if they cannot write properly, they will never be able to express their ideas except to people who happen to be physically in their presence or at the other end of a phone.

- Teaching students to write well makes some difficult demands. It demands practice, discipline, repetition, and feedback from both the teacher and the student.

- Repetition and frequent in-class writing exercises will familiarize students with the close connection between learning about the subject you teach and writing about it.

- No businessperson can persuade the company to undertake a new venture if he or she cannot express in clear, persuasive written language the benefits of the venture. Similarly with legal briefs, medical diagnoses, and so on.

- A student who can learn to write well and effectively in college will adapt quickly to writing demanded by a job—regardless of the area in which the student earns a degree.

Teaching Revision and Editing

Lecture 14

In writing, you have to have good manners … to help the reader understand what it is you're trying to say. … And you should always remember that the chief purpose of writing is to be able to convey some information to somebody else who doesn't know about this subject yet.

Although it feels solitary, writing is actually a social activity. How so? Because writing exists to be read, and there is an implicit social link between readers and writers. Writing is a stylized way of talking to someone else, and a good writer needs to develop what we might think of as good manners, in the sense of being considerate to the reader.

Writing is a stylized way of talking to someone else, and a good writer needs to develop "good manners" for this conversation. Have students think of a particular person to whom they are writing, and remind them that the chief purpose of writing is to tell others something they do not yet know. A writer has to win the confidence of the reader and will not do so if the writing contains grammatical errors.

Teach students that completing a draft does not mean they have completed the assignment. The opportunity to rewrite frees you to record all your initial thoughts, knowing that you will tighten them up later. Explain common errors students should learn to recognize in editing the first draft: inconsistency in verb tense; confusion of singular and plural, especially use of "their" as a singular pronoun; and common spelling mistakes (advise them not to rely solely on computer spell checkers). Most of these common errors can be caught and corrected with just one careful rereading. Also point out common grammatical errors that may be acceptable in conversation but not in writing. Work to eliminate mixed metaphors and caution against extended metaphors. Advise students to eliminate nearly all adjectives, especially such intensifiers as "very" and "extremely."

Students should think about how word choice affects readers' understanding. The English language often has dozens of near-synonyms for a given word, each of which may express a different shade of meaning.

First drafts tend to be overheated rhetorically, while cooler diction sounds more authoritative. In general, the teaching of writing in schools has overemphasized creativity and underemphasized the importance of learning the right idiom for the type of writing you need to do. Help students identify and define the academic tone in writing. Achieving such an objective tone is important in business communication, as well.

Urge students to read their drafts aloud to themselves or to a trusted friend to catch awkward wording or sentence structure. Encourage students to write a second draft without looking at the first draft. In doing so, they become more familiar with their own arguments and may find that their writing flows more easily.

Encourage students to write a second draft without looking at the first draft.

Introduce intermediate deadlines to create time for rewrites. Evaluate students' writing mercilessly but allow the opportunity for rewriting. In editing students' writing, consider the quality of the argument and its persuasiveness, the logic of the presentation, and evidence of adequate research, along with grammar and clarity. Research shows that "a mix of marginal notations and a longer overall comment" from the teacher is most helpful to students in improving their writing.

What if you don't feel qualified to teach and evaluate student writing at a high level? You can help your students become better writers simply by directing them to write regularly. Encourage students to write diaries so that they have the experience of writing in full sentences every day. Some professors ask students to write journals about their courses. Such exercises are valuable when coupled periodically with more rigorous writing assignments. ■

Toolkit

- The first draft is not supposed to be a finished work. Encourage students to see the freedom they give themselves if they accept that their first drafts will never be final drafts.

- Students must learn that writing takes constant practice, due diligence, patience, time, and thought.

- They must read aloud, be self-critical, and be willing to re-draft papers and to think about the vast complexity of language itself.

- In writing more than in almost every other area of education, the students have got to *want* to improve; without that desire, there's little you can do. That's why it's a good idea to tell them about the magical aspect of writing!

- Here, more than in almost every other area, teachers must be persistent, detailed, demanding, and endlessly encouraging.

Coaching Students on Presentation Skills

Lecture 15

Semester after semester in my classrooms, I'm right on the brink of giving up on student presentations—teachers are only human after all—but then every time I goad myself into trying it just one more time. … It is possible to improve your students' presentations and it's possible to improve you coaching of them, both by repetition and by close self-scrutiny.

Everyone who has attended an American school has sat through student presentations that were maddeningly boring, and every teacher in an American classroom has sat through hundreds of them. Later in life, nearly everyone has had to sit through boring presentations at work, too. Usually, the presenter is nervous and may speak too fast or too quietly. Often, presenters read through what they have written in a monotonous voice, rarely look up, and show with every gesture how much they dislike the experience. It is possible, however, to improve your students' presentations and improve your coaching of them by both repetition and close self-scrutiny.

The most common problems with student presentations include lack of mastery of the subject, lack of distinction between central and peripheral points, and lack of practice. Most of these problems can be remedied.

Mastery of the information is vital to a good presentation. No one learns more from teaching than the teacher. This point alone makes student presentations worthwhile. In preparing for presentations, tell students: "You're in charge. You've got to be certain you understand and can explain the material."

Practice makes perfect or, at least, bearable. Require students to do a dry run in front of you. Bring them into your office and discuss the topic of the presentation, then have students stand and speak as if they were in front of the class. A video clip of one of my coaching sessions with a student shows how she learned to summarize her main themes, control her gestures, give the presentation without notes, and convey some sense of connection between the readings on which she was speaking—all in about 20 minutes.

The student's actual presentation in class shows evidence that the practice session was worthwhile.

Some faculty members take the pressure off individuals by requiring group presentations. With such assignments, students meet outside of class to discuss their presentation. This approach increases the likelihood that students will read the material carefully. The sharing of responsibility that stems from group presentations is especially appropriate for beginning classes studying a difficult topic. Teachers must be ready to intervene if students stray from the topic or latch onto a misconception.

The sharing of responsibility that stems from group presentations is especially appropriate for beginning classes studying a difficult topic.

After the assignment, meet with students and go over the strengths and weaknesses of their presentations, reviewing the extent to which they followed the guidelines in the original assignment and in the practice session. Grade the presentation as a way of underlining its importance. Subdivide the grade between content and style to emphasize that both are important. ■

Toolkit

- Like writing, speaking well is something everyone can and should learn to do, but it requires good coaching and the discipline to practice.

- Making students take turns in presenting to the class is good for them, teaching them what it's like to be the teacher and giving them the opportunity to learn what level of mastery is necessary in order to effectively teach something to someone.

- Make time to coach students privately in advance of their presentations to ensure that they have practiced in an effective way.

- For students unused to giving oral presentations, consider group presentations.

- Grade the presentations according to how well the student attempts to follow your coaching.

- Don't overwhelm the student with too much advice. You will not transform anyone from mouse to orator in the space of one semester and should be satisfied with modest gains.

- Practicing with students is also good for you because it gives you a chance to think about the effectiveness of your own presentational skills in your work as you try to pass them on to students.

One-on-One Teaching

Lecture 16

Faculty who interact with students outside of the classroom have a more accurate sense of students' intellectual capabilities and higher expectations for their performance. … It's good both from the teacher's point of view, to get a better sense of the student, and it's good from the student's point of view because they tend to learn more in direct interaction with their teachers.

So far, we've talked mainly about situations in which one person teaches many others, but now and again, we all have the chance to teach one-on-one, which offers wonderful possibilities. This setting presents an opportunity for minimal compromise and maximum dedication on the part of both teacher and student.

Research supports the value of one-on-one teaching. One-on-one teaching allows both the student and teacher to give the situation their undivided attention. At its best, one-on-one teaching permits a minimum of compromise and a maximum of dedication to the work. Rather than guessing at the group's general level, the teacher can tailor every remark to the particular student. The student is likely to concentrate because he or she has "nowhere to hide."

Teaching one-on-one also enables you to dispense with concerns about group dynamics and peer pressure.

Teaching one-on-one also enables you to dispense with concerns about group dynamics and peer pressure. Students, particularly girls, are sometimes reluctant to shine in class from fear of peer criticism. Working one-on-one makes the dispensing of praise and blame easier.

In practice, individual meetings are often the preserve of the most and least gifted in any group. The most gifted realize that such meetings offer them an advantage. The least gifted know they need help to avoid failure.

The one-on-one environment is one of the advantages of homeschooling.

An extensive body of research confirms the benefits of one-on-one contact between teachers and students at all levels. Teachers who meet individually with students gain a better sense of their students' intellectual abilities. Students who seek out individual help are more likely to stay in school, to do well, and to enjoy their education.

In one example of one-on-one work, I am advising an undergraduate on a chapter of her senior honors thesis. Her topic is college students in the South before the Civil War; she is struggling with how to use the concept of adolescence. We note in our meeting that she must find a way to address this issue so that she can link the cases she has found in a conceptual framework. Sometimes, just talking over the implications of an issue is the best way to get mental clarity on something you've been working on alone. Note that I'm struggling during this meeting, too. I want to let the student say what's on her mind, but I also want to guide her toward a useful conceptual approach. Try to balance being a good listener against intervening when necessary.

Another sample of one-on-one work shows a meeting with a graduate student working on her dissertation. This student is more certain of her ideas than the undergraduate, and I can be pushier with her. The teacher's job is to pull the best work out of the student, not to write or rewrite the material. Most faculty members recognize the pleasures of one-on-one teaching, especially with graduate students. ■

Toolkit

- One-on-one teaching is extremely valuable to students, because it gives them the best form of access to your knowledge and experience. We know from extensive studies that it has a significant impact on both performance and retention.

- One-on-one teaching is valuable to teachers, too, because it permits them, for once, to direct all their attention to the particular student before them, rather than having to bear in mind the variety of learners in a class, the variety of emotions they feel toward you and toward one another, and their reluctance to stand out from the crowd.

- To be effective in one-and-on teaching without overwhelming the student, think about feedback, clarification, empathy, and active listening.

- One-on-one learning can help students learn the material faster. Equally, using one-on-one mentor-to-student or peer-to-peer teaching will have a quick payoff in the workplace.

The Learner's Perspective

Lecture 17

It's sometimes easy to forget that the students you meet in your classes have complicated involvements outside of their schoolwork and that they're often leading very turbulent, emotional, and personal lives. And the trick obviously is to be aware of the turbulence without becoming involved in it.

Good teachers should constantly try to view the classroom from the students' perspective. As teachers' difference in age from their students increases, the challenge of understanding them grows, but many elements of the teacher-student encounter remain more or less the same from one generation to the next.

Let's begin by defining "learner-centered education." According to Maryellen Weimer, learner-centered learning "engages learners in the learning process as full partners assuming primary responsibility for their own choices." It looks for ways to assist "learners to form and participate in collaborative learning activities."

Good teachers never stop learning, and the best teachers occasionally subject themselves to the role of student.

How do you get to that engagement, given that it may have been a long time since you learned the material? Good teachers never stop learning, and the best teachers occasionally subject themselves to the role of student. All the disciplines are changing rapidly, and conscientious teachers need to be students of their fields to keep up with new discoveries and approaches. More challenging than staying abreast of your own field is to take a class in an unfamiliar discipline.

Student and peer evaluations provide useful information. Ask peers to observe your teaching occasionally to point out the assumptions you are making about what students already know. In general, students want teachers to be masters of their subject matter and to teach it creatively and enthusiastically.

Students also want courses that enable them to develop intellectually and to take responsibility, rather than merely memorizing a mass of information. They favor a classroom atmosphere that is both stimulating and reassuring. Most students disagreed with my idea that a little tension in the classroom is beneficial. Students also want their teachers to take an interest in them as people and to be available to provide career and other advice outside of the classroom.

Do today's students learn differently than they did in previous decades? Professor Nowicki emphasizes the gulf between today's professors and today's students in terms of how they learn. If his assessment is accurate, then educators should adjust their teaching according to the ages and goals of their students, as well as their own goals. The literature about different learning styles is worthwhile reading, but don't regard it as gospel.

Students may not always understand or appreciate the variety of courses they are required to take, but a great teacher will help them find connections to the material and help them engage in it. ■

Toolkit

- You can't be a good teacher if you've forgotten what it's like to be a student and especially what it's like to learn your own material from scratch.

- In most respects, it behooves us to listen to students' thoughts about their teachers. They are right to praise enthusiasm, knowledge, accessibility, and empathy. When we disagree with their views, we need to be sure we have adequate reason for doing so.

- In thinking from the students' perspective, try to work toward learner-centered discussions, content, and development. This will eventually have the benefit of setting students up to take charge of their own learning, deciding when they need information, where to go for it, and how to judge its worth and reliability.

- In all learning environments, present material in ways that are meaningful to students. If you can relate what you are teaching to something already meaningful, relevant, or important in their lives, they are more likely to understand and remember it.

Exams, Evaluation, and Feedback

Lecture 18

It's universal for people to estimate their own abilities perhaps a little bit more highly than they really merit. And of course it's difficult to receive a less than glowing evaluation or projects or courses that you've done. If possible, you should remind the students of something they might not otherwise realize—that as their teacher, you'd much rather see them succeed than fail.

At the end of every course, you have to assign papers or give exams and grade each student. To prevent friction at this stage, teachers should establish clear and consistent grading policies from the beginning. You might also remind students that as their teacher, you would much rather see them succeed than fail. After all, there's no greater tribute to a teacher's ability than the success of his or her students.

Exams should fully test the students' knowledge of course material and their thinking ability and should be designed to elicit the full range of ability levels in a course. Before writing an exam, ask yourself what you want the students to take from the course. If it's mainly a way of thinking, provide data and test their ability to think in the way you require. If it's mainly a body of knowledge, ask questions that demand the knowledge.

Try to create exams in such a way that the answers will distinguish as many gradations of proficiency as possible. Differentiating good from bad is relatively easy, but differentiating fair from poor is much more of a challenge. Multiple-choice exams work well for questions where a definite

While corporate training rarely involves grading, trainees can benefit from having their knowledge tested and receiving feedback on their progress.

right answer is possible. Essay questions test students' ability to think conceptually and to connect individual facts or factors.

In-class exams, take-home exams, and orals each have benefits and drawbacks. In-class exams give an advantage to fast writers who can deal with stress; they are also generally easiest to grade. With take-home exams, you lose the ability to regulate exam-room conditions and create opportunities for cheating. Take-homes should set a higher standard for students, given that they will have access to books and the Internet. For this reason, take-homes require more time to grade. Oral exams reward students who are fluent talkers but write badly. They require teachers to be alert and discriminating listeners—there is no opportunity to review an answer.

Tell students in detail what kind of questions will be on the exam and how they will be graded. Decide on your grading policy before the beginning of the semester and stick to it. Recall the objectives you set for the course, refer to your syllabus, and stay consistent.

Give numerous grades for different activities over the course of the semester so that students know how they are doing. Research confirms the benefits of testing students' comprehension several times throughout the semester. An American Psychological Association study found that "frequent, immediate, and specific feedback helps students learn."

Decide whether you will reward progress or whether grades will be equally apportioned over the coursework as a whole. Some teachers drop the students' worst grades or weigh those received after midterm more heavily. Decide whether you will grade on a curve or according to an absolute standard. Participation is often difficult to grade. Cold calling enables the teacher to judge the quality of participation rather than the fact of participating.

Many teachers regard grading as the worst part of the job. Grading can be dispiriting, especially when it shows that the students didn't learn what you had hoped they would. At the same time, grading can be fascinating. It gives you a direct glimpse into the minds of the students.

Decide on a policy for grade disputes if your school does not have one. In general, try never to change grades. You should also learn your school's policy for dealing with cheating and plagiarism or establish one for yourself.

Evaluation can be an effective aid to teachers in improving the quality of their work, but it's a challenge to obtain honest evaluations because of the inequality of the teacher-student relationship. Students are the experts in this arena, and their ideas and suggestions are often more helpful than even they realize. Discard the best and the worst evaluations, then take seriously the frequently repeated remarks. Resist the temptation to treasure the best evaluations and to agonize over the worst. And remember that there is such a thing as the wisdom of crowds: If 20 people say you speak too fast, you do! Give an anonymous mid-semester evaluation even if your school does not require it. You can then respond to commonly voiced problems. ■

Toolkit

- Make sure you already know, on the first day of class, how you are going to examine and grade the students. Tell them.

- Consider the sort of feedback that you would find helpful, and tell students whether or not you are going to ask for a mid-semester evaluation of yourself from them. Explain what sort of feedback you are looking for.

- Give plenty of graded assignments throughout the course to show students how they are getting on and to give you a more objective record of their achievements. This will reduce the element of surprise and possible dismay at the end of the course.

- Temper justice with mercy and give yourself a little leeway to reward students whose improvement or conspicuous effort is praiseworthy.

- Expect cheating and plagiarism. It only happens occasionally and it's not your fault, though you should certainly give assignments that make it nearly as difficult for the students to cheat as to do the work they should do.

Maintaining Your Enthusiasm

Lecture 19

I think we've got more opportunities than most professionals to stay alert and to stay motivated. After all just think about the people we're meeting each term, they're young, bright, healthy, eager for experience, they haven't yet been beaten down by the hard world. And sometimes they're practically Utopian in their eagerness to change the world.

In the early days of your teaching career, you were no doubt filled with excitement and energy. But what happens 25 years down the road, when you've been teaching for so long that every class seems like a rerun of one you've done before? Every vocation can become dull through repetition and familiarity, teaching included, but the best teachers find ways to prevent a sense of monotony from ever setting in.

Teachers have more opportunities than most professionals to stay alert and motivated. We have the opportunity to meet bright, young, optimistic people every year or semester. At the same time, our academic disciplines are constantly changing as new scholarship and new discoveries help us see the world differently. Conscientious teachers should read new research and incorporate it into their teaching. Better still, participate in research and writing. The field of pedagogy itself has expanded greatly in the last few decades. There is always something new to learn.

Academic disciplines never stand still. Of course, change has been most rapid in the sciences over the last century. However, even the seemingly less dynamic fields, such as history, have been transformed. Social phenomena, such as the civil rights and women's movements, have prompted new questions about race and gender.

At the college level, professors don't merely read new literature; we write it, too. Participation in research and writing can prevent the onset of dullness and can interact symbiotically with teaching. Students enjoy professors' accounts of their original research. Discuss the questions you're investigating in your research with your students.

Research, even more than wide reading, reminds you of how uncertain knowledge often is, especially at the frontiers of our ability to grasp it. Being an active researcher helps you decipher the apparently confident and incontrovertible language of textbooks and to point out to students what work and insights are actually being summarized there. In other words, the more you know your topic, the greater the probability that you'll be able to teach it well. A few scholars even change their field of research to increase its resonance with their teaching.

Try occasional innovations in your classroom, and keep your eyes open for the unexpected.

Try occasional innovations in your classroom, and keep your eyes open for the unexpected. Inspired teaching moments can arise from within the class if you recognize them and make room for them. Visit other professors' classrooms to see who is doing something different or experiment with team teaching.

I think it's also important for teachers to be physically fit. The leaders in almost any field of human endeavor are healthy and active. Academic life tends to be sedentary, and there are powerful temptations to not being active.

At the start of each new semester or course, remind yourself of what an extraordinary thing you are doing. We close with Dr. Norden's imaginative way of starting new courses and her reminder to put ourselves in the position of the learner. ■

Toolkit

- Research overwhelmingly affirms that students respond favorably to enthusiastic teachers, so it is highly desirable to remain enthusiastic despite the passage of time.

- Take each new course or new semester as a new challenge. Even if you have taught the "content" before, you have not taught it to the particular group of students you are now facing, and the better you know the

material, the more you can concentrate on classroom dynamics and on making a powerful impact.

- You should keep up to date with research in your area of knowledge, and if possible, you should participate in that research.

- Think consciously about apportioning your time between research and teaching. Avoid the obvious pitfall of devoting nearly all your time to one or the other, and try to find ways to give your students a glimpse of the work you do in your life as a researcher (without overwhelming them).

- "A sound mind in a sound body" was a good idea in the days of the Roman poet Juvenal and it's just as good today. You'll be a more impressive teacher if you're healthy and active.

Managing the Challenges of Teaching

Lecture 20

The research tells us overwhelmingly that students feel less motivated to learn and to work hard if they feel anonymous in class. Even though sometimes they appear to be seeking anonymity, as they seek it they're harming their own opportunities for good learning; and so what we've got to do as teachers is benevolently overcome the temptation they feel to hide themselves.

My colleagues and I who participated in this course are among the most privileged teachers in the world. We generally teach just two courses per semester, our students are far above average in ability and motivation, we can devote time to individual students, and we have first-rate facilities and support staff. Most teachers, and most teaching situations, are less fortunate. In this lecture I'll make a few suggestions for teachers under various kinds of stress, proposing ways for them to manage their time and their students while making the best of difficult circumstances.

Most teachers feel vulnerable at the beginning of their careers. They lack self-confidence and have to convince themselves that they are authority figures. Most college teachers have not been formally trained in pedagogy. Arguably, schoolteachers undergo too much study of pedagogy, but it's difficult to justify the college tradition of doing none at all. In my first experience as a teaching assistant, I had no training and made all the usual mistakes: aiming too high, going too fast, and grading too harshly. I've been piecing together my own teaching style ever since, but like nearly all college faculty, I'm essentially self-taught.

Beginners should practice speaking in a loud, clear voice and scrutinize videotape of the result. Look for verbal tics and make sure you are speaking in sentences. It's a common mistake to interject "and" instead of finishing one sentence and beginning the next. Use your inflection to give listeners a sense of paragraphs.

Large classes are particularly challenging. In a large class, it's harder to get students engaged and to construct an interactive environment. Try moving through the classroom as you speak, look students in the eye and call on those whose names you have learned, and note unacceptable behavior.

Before the semester begins, think about room management. Always visit the room you'll be using ahead of time. Make sure there are enough chairs and a slide projector if needed. Ideally, you should have more seats than students, so that you can reorganize the seating pattern periodically. Tell students that they must fill up the rows from the front to keep them from heading toward the back. Sitting side by side creates an energy among students that is absent when they're scattered.

Sitting side by side creates an energy among students that is absent when they're scattered.

Young teachers often feel too many demands on their time. They may have to teach too many courses, publish their research, and serve on committees. Many colleges impose a load of four courses per semester; the academic "gypsy" is also becoming distressingly common. These teachers may have five or six courses at several different campuses; the work offers low pay, no benefits, and no job security.

Good time management is imperative. Do as much as you can, but apportion your time equally among the courses. As a beginning teacher, give frequent short-answer tests, which are easier to grade, rather than research papers. Once you have written the lectures and are delivering them in the second year, you can give longer writing assignments or develop more rigorous assessment standards.

Teachers at small campuses often have to work far outside their areas of expertise. In this situation, wide reading of the basic narratives is the best use of your vacation time.

Some students find adaptation to the culture of the school or college difficult, causing added problems for their teachers. College isn't for everyone. Sometimes it's necessary to flunk students, even if they will have to leave

school because of it. If a student's literacy or numeracy is deficient, direct him or her to available counseling and remediation services. Give fair warning of disciplinary action and decide ahead of time whether you will give extensions for writing assignments, permit rewrites for students who receive poor grades, or offer extra credit. Certain subjects, such as math and chemistry, are intrinsically difficult and impose a special duty of concern on teachers. Always keep in mind that what was easy, or relatively easy, for you is difficult for others.

Teaching isn't for everybody. Ask yourself periodically whether you want to carry on with it. The "rewards" in many cases are low pay and long hours, especially compared with other learned professions. Teaching is only worth doing if you like it, because most of the gratification comes from the work itself. There's no discredit in giving up if you realize you just don't have the temperament. ■

Toolkit

- Teaching is always challenging, most of all when you are a beginner.
- Work on developing a teaching persona that will enable you to play the role whether you feel ready or not and even if you find it hard to shake the "imposter" feeling.
- Discipline yourself to work very hard, especially in the first years, but be realistic. If you are teaching a lot of courses, apportion your time and have manageable expectations.
- Sometimes you will come into conflict with students, usually over their failure to keep up with the work or because they have cheated or complained about your grading. Never let it become personal; these are professional issues that have to be dealt with in a professional way.
- Remember that befriending students breaches the professional distance that protects you when trouble arises.

- Remember that even a large class needs to have a feeling of community. Be inventive about ways to get to know your students and have them get to know one another.

- Reflect on your life as a teacher periodically to ensure that you still feel it as a vocation rather than merely as work.

Creativity and Innovation

Lecture 21

As a teacher you should always be asking how could I do this better? How can I help the students learn this material more effectively? How can an experience I've had in one place be transferred to a different setting?

It's important as a teacher to create a set of routines and to stick with them, so that students know where they are and what to expect. But if you never break out of the rut, the reassurance of a routine becomes the monotony of a fixed habit. Just as it is important to maintain your enthusiasm through constant engagement with research and new learning, so it is important to experiment with your teaching methods periodically.

Some of the most rewarding teaching experiences arise when you try something new in the classroom. Try to surprise students by occasional deviations from the routine. Bring an expert visitor to class or behave in an

Conductors are worth studying for their ability to communicate nonverbally.

unconventional way to concentrate the students' attention. Bring out students' neglected abilities by challenging them to do unfamiliar activities.

Explore new uses for technologies with your students. Professor Pollock notes that creating a Web site for a course frees him to begin working with class content straight away. Teachers might also set up a wiki, a site to which students can contribute material and others can correct and build on it. Such a site might be particularly beneficial for students who are reluctant to speak in class. Using Web video technology, you and a colleague at a university in another country can arrange to have periodic class "meetings," in which students compare ideas and expose each others' assumptions in real time. This activity would be especially useful for classes in history, politics, and economics. But it's also worthwhile to remind students of the value of traditional sources of information. Give an assignment that compels them to go to the library.

Try to suit your teaching to the place where you are doing it.

Try to suit your teaching to the place where you are doing it. Professor Hale engages his students by talking to them about archaeological discoveries made in the university's hometown. Emory's chemistry department runs a creative summer program in northern Italy, where students split their time between the chemistry of wine-making and the chemistry of painting restoration. Elementary school teachers often arrange their activities around traditional holidays, but celebrating unusual anniversaries, such as the anniversary of the town founding, might also be useful.

Oral history offers superb learning opportunities. Working on an oral history with my father gave me renewed insight into the suffering that accompanies war. I often assign oral history projects to inject an element of reality into subjects students read about in texts. For example, in Atlanta, students can learn about segregation from almost anyone who is over the age of 50. Keep in mind, however, oral history projects require careful planning.

Review current research on educational methodology for other ideas. ■

Toolkit

- There's a valuable place for creativity and innovation in teaching. The issue is knowing when, where, and how to use it.
- Make certain that your innovations support the theme of the course and are compatible with your personality and your skills. If you are unwilling to sing or to draw (and you shouldn't be!), you cannot in fairness ask your students to do either.
- Novelties for their own sake are no use; the students will come to depend on them, whereas they ought to be depending on the steady routine that you established right up front.
- Give the students a sense of anticipation, that there's always a leavening to the routine and a sense of the unexpected or the amusing just around the corner.
- Let the students' pleasure in learning grow chiefly out of the material itself, but never miss an opportunity to take advantage of the place you are in, the date, or the special circumstances of the moment.
- Look for ways to learn as well as to teach and try to look beyond the conventional structure of the educational situation.
- Seek out the latest research on teaching and learning for more ideas.
- Take a moment to refresh your memory of what you loved about your field of study and your own early commitment to teaching before you begin to teach.

Myths, Lies, and Half-Truths

Lecture 22

In the end, truly educated people are people who've learned how to educate themselves. Teachers can help, and they can certainly point learners in the right direction and stop them from going down blind alleys. But in the last resort, the learner has got to want to learn.

Education is an area that encourages utopian hopes and delusional ideas among politicians, teachers, students, administrators, and parents. And it's sometimes painful to try to dispel such myths because doing so endangers some of our most cherished principles. In this lecture, we will identify and debunk some of the most common illusions and half-truths about teaching.

Let's begin with a common myth: Learning is easy and most people are willing to do it. The reality is that learning is difficult and most people object strongly to engaging in it. Our job as teachers is to acknowledge that we're trying to get students to undertake a difficult and unpleasant job. We need to find ways to motivate them without deceiving ourselves into thinking of learning as intrinsically enjoyable.

Another myth is the idea that the extent of a teacher's job is to pour knowledge into students. Great teachers realize that although students must memorize a great deal, the real task is to help them process the information they have.

The idea that education is for everybody is a half-truth. Over the last 200 years, Western industrial societies have shown that mass education and literacy are possible. However, the rarity of exceptional intellects also shows this idea to be partially false. The vast majority of educated people have vocational ends in view. Our job is to teach them regardless of their motives.

Completely false is the notion that with enough effort and good will, a teacher can make all his or her students achieve success. Many people who

enter teaching are overly optimistic in this regard and become disillusioned when they meet reality. The teacher's job is to strike a balance between doing everything possible to help students without internalizing the failures of the low achievers.

Another half-truth: A good teacher makes all the difference. Nearly everyone can recall a wonderful teacher who set them on the road to learning, which is why it's important to let students know that they have pleased you when they do well. Although the teacher might stimulate the imagination or spark a student's ambition, it is the student who must do most of the work. Really highly educated people have educated themselves. Teachers preside over the process, but unless students themselves have the desire and the self-discipline, no amount of good teaching will make much difference.

Two other myths are that the teacher knows all and that you can't teach unless you already know everything. Closely tied to those two is the idea that teachers lose all authority if they're ever wrong or that teachers are completely objective.

Our job as teachers is to motivate students to undertake the difficult work of learning.

It's untrue that in education, you get what you pay for. Again, the student's motivation is by far the most significant variable in education. A student who does no more than the minimum will get no more than an adequate education. Conversely, the dedicated and motivated student can achieve magnificently simply by spending time in the library. Students rarely take advantage of the accessibility of professors at colleges that have a low student-teacher ratio.

Another half-truth is that students who go to private schools and Ivy League colleges have overwhelming advantages. The advantage lies far more in having gone there than in actually being there. Peer pressure at such institutions may also lean toward, rather than away from, intellectual pursuits.

First-rate scholars may or may not be good teachers. Research and teaching require different qualities.

It's completely untrue that the best teachers are employed at the best colleges and universities. Academic hiring has very little to do with teaching and is much more oriented around the research of the candidates. A typical job interview includes teaching a sample class and making a presentation to the rest of the faculty, but neither of these is a reliable marker of long-term conscientiousness or imagination in the classroom. First-rate scholars may or may not be good teachers. Research and teaching require different qualities.

The idea that it is vital to uphold students' self-esteem is half-true. Positive reinforcement is essential, especially with marginal students; however, you should not imply that students have done well when they haven't. It is also appropriate to criticize poor performance and hold students accountable for bad work. ■

Toolkit

- There is almost no correlation between money spent and education achieved. Even if the truth is painful and surprising, it's better to know it than to live in a fool's paradise.

- Information goes out of date quickly. Therefore, a fundamental element of great teaching is to engage students in their own education by teaching them to find information themselves, process it, and examine it critically. Passive recipients of knowledge aren't going to retain information as long or as well as those who learn how to become responsible for their own lifelong education.

- Your goal as a teacher may be to convey information as disparate as the best way to dribble a soccer ball or how to drive a car or how to lead a change management. As you teach the particular lesson, whatever it may be, you should also be showing your audience how to learn.

The Anatomy of a Great Teacher

Lecture 23

The great teachers are happy to be in the company of learners. This is perhaps one of the most decisive points of all: They want to be there. All the Teaching Company professors I spoke with enjoy being among their students, and regard class time as among the best moments of their working lives. None of them regards it as in any way a chore.

The "great teachers" interviewed for this course were all modest about the label given them by The Teaching Company, but when pushed on the question of what made them great, they all described their love of the work, their sense that their teaching could always be improved, and their enthusiasm for communicating what they know to students. We speculated about whether great teachers are born or made and the degree to which the ability to teach is something fortuitous or something achieved through practice and hard work. As with so many aspects of this course, we never reached a consensus, though there was enough in common for us to be able to at least sketch the anatomy of a great teacher.

Great teachers think of their work more as a vocation than as a job. Even as a child, I dreamed of being a teacher; later, I would test my understanding of schoolwork by seeing whether I could explain it to others.

Great teachers are happy to be in the company of learners. All The Teaching Company professors I spoke with enjoy being with their students and regard class time as among the best moments of their working lives. They worry about their students' welfare, take pleasure in their students' achievements, and thoroughly enjoy the challenge of teaching.

Great teachers are exposed early in life to excellent role models. Many come from families that were involved with education. Most great educators were inspired by teachers of their own or schools whose example they seek to follow.

Great teachers are self-critical, demanding, and eager to improve. They encourage colleagues to watch them teaching and to offer constructive criticism. Great teachers also watch other teachers at work and try to adopt their colleagues' most effective techniques.

Great teachers work systematically to improve their teaching and recognize carryovers from related activities to their teaching. They study the literature on teaching and pedagogy to make sure they are aware of new insights. In recent decades, such insights include the realization that different students learn in different ways and the idea that education is relational, engaging interplay between teacher and student.

Education is relational, engaging interplay between teacher and student.

At the same time, however, great teachers treat new theories with skepticism and avoid quick fixes. It is sometimes a struggle to read literature on education, which is legendary for its dullness. I find the most useful theories and approaches to be those that grow directly out of a teacher's actual classroom experience.

Most teachers think of great teaching as something that can be learned. Professor Pollock generally thinks of teaching as a science but admits that it also has an artistic element.

Great teachers are eager to meet or exceed their students' expectations and take criticisms to heart. These educators also think of great teaching as something that transforms both students and teachers. Most of the time, teaching and learning are just work, but now and then, the obstacles seem to fall away and leave a sense of exhilaration and achievement. That's what I'm getting at when I tell students that class is a "special time." ■

Toolkit

- To achieve greatness, you have got to enjoy teaching and enjoy the company of students.

- You must be willing to scrutinize your teaching work, watch video of yourself teaching, and be willing to criticize yourself frankly and continuously.

- Equally, you must be willing to watch other teachers and have others watch you and to exchange candid judgments about what you are doing well and poorly. The best teachers are always looking for ways to improve themselves.

- You need to keep up with the literature on teaching and learning and assimilate its best insights, without losing faith in your particular style of teaching and in light of the particular tasks your subject and your students impose. You also need to keep up with the literature in your own field and actively look for ways to transform the important developments within your field into material that your students can truly grasp. Treat your teaching with the same seriousness as your research.

- Not every teacher can be great, but with conscientious work, nearly every one can and should continue to improve decade after decade, since so much of the work is cumulative.

Teaching and Civilization

Lecture 24

If the younger generation cannot read, write, navigate, empathize, negotiate, and build, civilization will come to an end. As the world becomes more complex and its achievements more spectacular, but also in some ways more threatening, the burden on teacher's increases commensurately in all areas of learning, not just academic.

The survival and continuity of civilization depend on teachers. Before each generation dies out, it must pass on the accumulated wisdom of earlier generations to its successors. Teachers have always been valued members of society, but most teachers in America today feel underappreciated and certainly do not enjoy high social prestige or high pay. Their reward comes more from the exercise of an honorable vocation than from the promise of material compensation. In this lecture, we'll summarize the functions of a teacher, pay tribute to the outstanding professors who participated in this course, and think in broader terms about the role of teachers in preserving and enriching our world.

Let's begin by looking at the role played by teaching in the upbringing of each new generation. Children have an immense capacity for learning but are physically vulnerable for many years. As every child's first teachers, parents impart such concepts as love, honesty, respectability, prudence, and restraint. In schools, children meet teachers who should also deserve their trust and encourage them to learn. Here, intellectual concerns become more important than emotional ones. Each generation must produce more highly educated young people than its predecessor, to take over responsibility for the achievements of the world as it grows more complicated.

As we've said, nearly everyone has to play the role of teacher at times. Many of the lessons offered by our professors are equally applicable to the worlds of business, medicine, and sports coaching. Those responsible for teaching new generations of nuclear power plant managers should certainly be just as patient, conscientious, flexible, alert, enthusiastic, and thorough as those who are teaching the basics in schools and colleges.

The history of civilization is marked by the occasional appearance of great teachers, who dramatically reshape it. Plato's dialogues depict Socrates as one of the earliest great teachers, whose influence on pedagogy persists to the present. The parables of Jesus are superb examples of teaching difficult lessons in language familiar to the audience. Storytelling remains a brilliantly effective teaching method. Along with Socrates and Jesus, the Buddha, Confucius, Mohammed, and others were teachers who changed the course of history.

Students interviewed for this course said that they want to learn from teachers who care about them, who remember the struggles of learning unfamiliar material, who help students over their difficulties, and who will mentor them.

The men and women featured in this course recognize the need to introduce innovative variations on the strong and durable foundations of the teacher's art. Students interviewed for this course said that they want to learn from teachers who care about them, who remember the struggles of learning unfamiliar material, who help students over their difficulties, and who will mentor them.

- Professor Page, at the University of Michigan, prepares students to apply mathematical concepts to complex sociological and political situations. In doing so, he works to overcome their anxieties about math and to convince them of their ability to advance a discipline of which he is one of the founders.

- The teaching of Professor Hale, at the University of Louisville, shows that even archaeologists need to be highly adapted to the contemporary world.

- At Duke University, Professor Nowicki is convinced that new generations of students need to be taught in new ways. He is experimenting with student-centered learning and team teaching.

- Using a method that Socrates would instantly recognize, Professor Roberto, at Bryant University, cross-questions his students using the

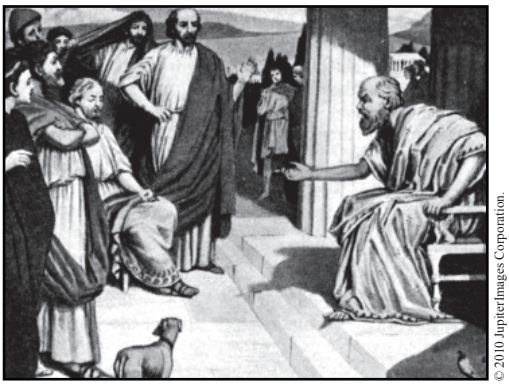
case method. Brimming with energy and self-assurance, he models for students the kind of persona they might want to project in their professional lives.

- Professor Pollock, at the University of Colorado, makes inventive use of clickers and other technologies to monitor his students' understanding of new material and his own ability to impart it effectively.

- In one of the most moving moments of this entire project, Professor Norden, from Vanderbilt University School of Medicine, described the way she intersperses her technical teaching of neuroscience with a remembrance of its real implications.

What generalizations can we make about great teachers? They are enthusiastic about their teaching, plan carefully, keep a clear sense of their objectives, and hold their students to high standards. They take a keen interest in their students' intellectual welfare and professional future but recognize that they are involved in a relationship of inequality. They model for their students the idea of lifelong learning as they continue to improve in their own disciplines and as they look for ways to make their teaching better. They believe that teaching and learning go together; both require inquisitiveness, self-discovery, hard work, and the willingness to be self-critical.

All the professors in this course agreed on two central issues: Never forget what it's like to be a struggling student; what's familiar to you is strange and difficult to many students. And never forget the wider moral and political situation in which you work as a teacher. You are one of the guardians of civilization, passing along its accumulated heritage to new generations. ■



A truly great teacher can help change the world. Socrates was one of the earliest teachers.

Toolkit

- Great teachers are enthusiastic, plan carefully, establish clear objectives, and hold their students to high standards.

- Great teachers recognize the inherent inequality of the teacher-student relationship but are nonetheless interested in their students' intellectual welfare and professional future.

- Great teachers model the idea of lifelong learning; they seek ways to improve in their own disciplines and in their teaching.

- Great teachers believe that teaching and learning go together; both require inquisitiveness, self-discovery, hard work, and the willingness to be self-critical.

- Never forget what it's like to be a struggling student. Take on the challenge of becoming a student again yourself in a subject remote from your area of expertise.

- Never forget the wider moral and political situation in which you work as a teacher. Totalitarian regimes have always been quick to enlist teachers to brainwash new generations, and even teachers must occasionally resist heroically.

Glossary

active learning: Opportunities for students to be engaged and interactive with the material; activities that help the student learn through doing.

analytical thinking: Separating ideas or concepts into components to understand the nature and inner relationships.

critical thinking: Using logic to explore questions for which there are no clear-cut answers.

intentional learning: Experiences where learning is the primary goal, rather than an incidental result of actions.

learning strategies: Processes students apply to complex material for a better understanding of new concepts and ideas.

learning style: Based on various personal characteristics, the student's preferred approach to learning.

learning to learn: Process of enhancing one's ability to attain and apply knowledge.

metacognition: Thinking and being aware of the learning process, understanding one's cognitive processes.

motivation: A student's reason for learning.

Bibliography

Allitt, Patrick. *I'm the Teacher, You're the Student: A Semester in the University Classroom*. Philadelphia: University of Pennsylvania Press, 2005. This book is a blow-by-blow account of one semester in my post-bellum U.S. history class. Part diary, part reflection, it showcases the daily challenges and joys that teachers encounter in university lecture halls.

American Accounting Association. "Intentional Learning: A Process for Learning to Learn in the Accounting Curriculum." http://aaahq.org/aecc/intent/cover.htm. 2009. Although focused on accounting education, this article offers numerous insights into fostering intentional learning in any environment.

Armon, Cheryl, and Steve Venables. "The Coaching as Teaching Pilot Project." Los Angeles: LA84 Foundation, 2008. A report on coaching education. http:www.la84foundation.org.

Bain, Ken. *What the Best College Teachers Do.* Cambridge: Harvard University Press, 2004. A summary of methods and philosophies of great teachers based on numerous interviews of outstanding professors.

Cheney, Theodore A. Rees. *Getting the Words Right: How to Rewrite, Edit, and Revise.* Cincinnati: Writer's Digest Books, 1983. This book shows how to create concise, well-crafted writing through the revision techniques of reduction, rearranging, and rewording.

Collins, Jim. *Good to Great: Why Some Companies Make the Leap ... and Others Don't*. New York: HarperCollins Publishers Inc., 2001. The best-selling book on leadership—a business perspective on leadership, with lessons that can transfer to teaching in various environments.

Davis, Barbara Gross. *Tools for Teaching*. San Francisco: Jossey-Bass, 1993. A thorough examination of strategies for successful teaching.

DeRoche, Donald. “False Assumptions: What Students Really Think.” http://www.keynotesmagazine.com/article/?uid=39.

Kotter, John P. *Leading Change*. Boston: Harvard Business School Press, 1996. While focused on change management in business, this book will prove useful to administrators trying to change educational systems, as well as for those who teach within the business environment.

McKeachie, Wilbert J. *Teaching Tips: Strategies, Research, and Theory for College and University Teachers*. Boston: Houghton-Mifflin Co., 1999. A rich compendium of ideas for all areas of teaching, in and out of the classroom.

McQuade, Donald, and Christine McQuade. *Seeing and Writing*. Boston: Bedford/St. Martin’s, 2000. Teaches writing by asking students to treat seriously the connection between the verbal and the visual. It includes some useful exercises and examples for the classroom.

Musselman, Eric. “Coaching Is Teaching.” *The New York Times NFL Blog.* http://fifthdown.blogs.nytimes.com/2008/12/23/coaching-is-teaching. December 23, 2008.

Noden, Harry R. *Image Grammar: Using Grammatical Structures to Teach Writing.* Portsmouth, NH: Heinemann, 1999. This book is built around the idea of the writer as a “painter” who uses grammatical structures as his tools. It comes with a CD-ROM of lesson strategies and examples.

Schooley, Claire. “Informal Learning Connects with Corporate Training Programs.” Forrester Research, Inc., August 13, 2007. A private publication exploring the role of informal learning in the corporate training environment.

Weimer, Maryellen. *Learner-Centered Teaching: Five Key Changes to Practice.* San Francisco: Jossey-Bass, 2002. A theoretical foundation to learner-centered teaching with practical strategies and especially good recommendations for additional resources.

Willis, Meredith Sue. *Deep Revision: A Guide for Teachers, Students, and Other Writers*. New York: Teachers and Writers Collaborative, 1993. This book offers practical and interesting ways to revise both fiction and nonfiction and includes many examples from literature and from classroom writing.