

Taking Teaching Seriously

THE FACULTY OF ARTS AND SCIENCES (FAS) has begun a high-priority effort to encourage innovative, effective teaching. A committee of nine senior professors, named on September 4, aims to bring preliminary recommendations to the full faculty for discussion by February 1. That fast schedule would complement possible legislation to revise the undergraduate curriculum—a larger project that has been largely silent on pedagogy. President Derek Bok, whose recent book, *Our Underachieving Colleges*, emphasizes the importance of systematic efforts to assess and improve teaching and learning, has voiced strong support for the new committee.

A mission statement for the Task Force on Teaching and Career Development (TCD), the new committee's formal name, drafted in FAS and inspired in part by Bok's book, argues that Harvard faculty members, "renowned for distinguished scholarship in their fields,...are also creative and devoted teachers." But "like their counterparts at other leading universities, Harvard faculty often perceive" that "published research is supremely important to the University, while special effort given to pedagogical improvement is a matter of personal taste or valor." Moreover, excellence in teaching is too often perceived as "a fixed talent...that some people have and others don't." Instead, the paper says, there is significant research on effective pedagogy, and there are opportunities for experiments and improvements in teaching to be shared with and used by colleagues. (For an announcement of the task force and its members, see www.fas.harvard.edu/%07Esecfas/RelatedDocs.html.)

Accordingly, the task force will assess how FAS can "foster and reward pedagogical improvement as a major professional commitment for academic scholars at all stages of their careers." It will explore:

- encouraging scholar-teachers "to become self-conscious about" their teaching goals and about innovating—in part by enabling graduate students and faculty to "present evidence" of teaching accomplishments;
- assessing teaching more adequately in decisions about hiring and promotion;
- enhancing recognition and rewards for those who make "sustained and effective efforts to improve teaching"; and
- strengthening resources available for teaching improvement."

Those charges go to the heart of the balance—or imbalance—between research and teaching in a university like Harvard. That the task force sees its mission as embracing "career development" suggests interest in how faculty members perceive their responsibilities broadly, over time. That points TCD's work beyond existing efforts to make training in teacher "skills" available, especially to teaching fellows, or offer remedial help. (Such efforts reside for FAS as a whole in the Bok Center for Teaching and Learning, <http://bokcenter.fas.harvard.edu>; see "Where Pedagogy Is 'Interesting,'" September-October 2001, page 67.)

Because future professors receive their doctoral training in the Graduate School of Arts and Sciences (GSAS)—and often, as teaching fellows, their first experience

leading undergraduate classrooms—it makes sense to involve the graduate school in this new effort. So FAS dean Jeremy R. Knowles has appointed GSAS dean Theda Skocpol as TCD's chair.

Task-force members come equally from the humanities, social sciences, and natural sciences, each of which has distinct teaching challenges. Skocpol, Thomas professor of government and sociology, assembled a group of senior professors who can make credible recommendations to their peers. Among them are such recognized innovators as McKay professor of applied physics and professor of physics Eric Mazur; his work on students assisting one another to learn, and on assessing student comprehension of lectures while a class progresses, has been disseminated widely

through his *Peer Instruction: A User's Manual*. Laurel Thatcher Ulrich, 300th Anniversary University Professor and chair of FAS's standing committee on pedagogical improvement, is also a member.

The membership signals the seriousness of professors' responsibility for their own teaching and for the training of the teaching fellows who are

employed in College courses as an integral part of their doctoral education. At least within the arts and sciences, Skocpol said, research universities have not been systematic about such practices. At Harvard Business School, she noted, peer assessment of junior faculty members' teaching weighs considerably in promotion and tenuring decisions.

How, THEN, does teaching improve, to benefit student learning, in the university? When he led the curriculum review, former FAS dean William C. Kirby sought to meld Harvard's excellence in research with classroom experiences as good as those at the very best liberal-arts colleges—known for their focus on teaching and faculty-student contact.

Many factors impede that goal, but the elemental one, President Bok said in an in-



Task-force chair Theda Skocpol sees teaching improvement in systemic, not merely individual, terms.

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The Business of Teaching

Harvard Business School (HBS) classes are taught interactively—by the case method—and by the professors themselves, who also do the grading, following a strict 20-70-10 curve. Moreover, the first-year M.B.A. curriculum is prescribed for all students; typically seven or eight professors form a teaching group for each course, with each faculty member conducting the class for one of the student sections, while jointly striving for consistency in what all the students learn. Adding to the challenge, less than half the HBS faculty now come from business-school backgrounds; a majority have degrees in other disciplines, and so encounter case-method teaching cold.

As HBS differs from the Faculty of Arts and Sciences (FAS) in curriculum, student experiences, and the teaching demands placed on professors, so its new Christensen Center for Teaching and Learning (established in late 2004) differs from FAS's similarly named Bok Center. Staff from the Christensen Center, building on an existing four-day orientation to the school and case teaching for new faculty members, now regularly meet with professors, when asked, to review their teaching plans, attend and videotape a class, and then discuss the tape and their

observations together. About 130 of HBS's 230 teaching faculty have gone through the process so far, according to center director Willis Emmons '81, M.B.A. '85, Ph.D. '89, a senior lecturer with deep knowledge of the school.

The center is developing a repository of tapes on best practices to help faculty members teach better. This "coaching library" enables professors to see how peers start a class, make a cold call on students, deal with difficult material, or wrap up a session. Annual symposiums focus on a teaching challenge: executive education last year; this year, how to grade and provide feedback to students. "Caselets" on such topics use the case approach to teach the teachers themselves. Written outlines cover essentials of conducting a case class and how to observe a class effectively—a critical skill, because senior-faculty evaluations of teaching are required in HBS promotions. None of this is "high science" yet, Emmons says, but the center is extending its research in hopes of better serving HBS and, ultimately, other Harvard professional schools using the case method.

The center "is not the woodshed. It's not the remedial place to go because you are having trouble," nor a basic-skills venue for teaching fellows (a core Bok Center activity). Emmons sees the center becoming "a complement to and not a substitute for faculty teaching development," to which HBS already devotes significant energy and effort.

interview, is that research is associated with powerful rewards. It is written down, widely disseminated, and directly tied to its author's reputation among peers worldwide. Outside interests—grant-making agencies, corporations—can identify and reward the best researchers with funds to pursue their work, speaking and consulting assignments, and job or equity offers. Educational ratings can measure research (for example, in literature citations).

Teaching has none of these advantages, at least today. Without systematic, recognized measures of teaching effectiveness, neither students nor outside raters know how to evaluate or act on the limited data available. Whereas scholars share drafts of their research with one another and hash out exciting lines of inquiry, teaching remains private: faculty members rarely attend one another's classes. Efforts to make teaching a subject of collegial improvement are scarcer still.

That "inherent disadvantage," Bok said, needs to be addressed with administrative support, from review of appointments through setting of salaries, conferring of recognition, and providing resources to help people who are "moved to improve their teaching." No one thing would suffice, he noted: taking better account of a candidate's teaching at the time of appointment does not address the need for mentoring and improvement throughout

an ensuing 30-year academic career. "The cumulative effect of many small changes," he said, "will change the culture of the place overall."

Alongside the new task force, Bok pointed to two complementary initiatives. An FAS working group met during the summer to refine thinking about the College's general education requirements (currently covered by the Core courses). This fall, he said, its work should be ready

for discussion among a wider group of faculty members. (A draft report was released on October 3; see www.harvardmagazine.com for updates.)

Separately, Bok indicated, he, Skocpol, and Bok Center director James Wilkinson had begun to examine teaching-fellow preparation and junior-faculty training. Beyond tools and techniques—such as the center's current service of videotaping a class for subsequent

Classicalist Kathleen M. Coleman says that in her discipline, teaching has long been considered "integral in the handing down of the torch of knowledge."



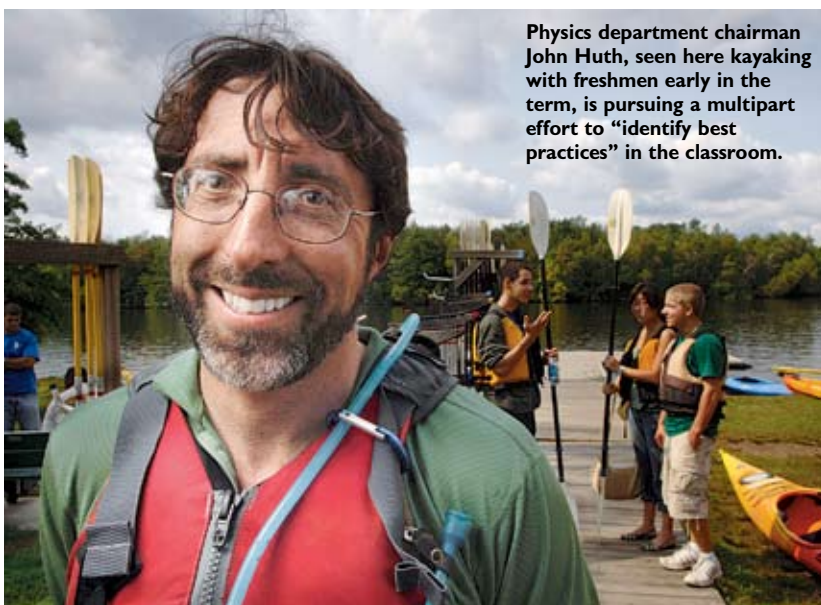
evaluation with the instructor—Bok wants to explore ways the center can promote knowledge of how students learn, the effectiveness of different forms of teaching, and even of the history of undergraduate education—“the larger whole,” as he put it, “to which their individual teaching contributes.” (See “The Business of Teaching,” page 61, about such approaches at the business school.)

“We’re attacking the quality of undergraduate education from just about all the angles I can think of,” Bok said, in an effort to bring to a successful conclusion the faculty’s three-year-plus investment in rethinking the College course of study.

JUST POSSIBLY, the moment is ripe for doing so. “I detect a lot of real interest in addressing these issues,” Bok said, noting among other examples that some of the young professors involved in the new team-taught introductory life-sciences courses (see “Enlivening Science,” July-August 2005, page 62), who were recruited for their research prowess, were particularly enthusiastic about teaching.

Similarly revised introductions to the physical sciences and humanities appear in the course catalog this fall. The freshman seminar program now accommodates most entering students in one of the small-format, ungraded classes that explore a subject of interest in depth. Departments like economics and government, notorious for large lectures, have overhauled or enhanced junior tutorials to improve the classroom experience. In the meantime, the faculty ranks have expanded at the fastest rate in a generation, making it easier to envision changes in the classroom, if the will is there.

As the task force examines faculty practices generally, Skocpol has also asked six departments ranging from classics to physics to report in detail on their own efforts to strengthen teaching, including



Physics department chairman John Huth, seen here kayaking with freshmen early in the term, is pursuing a multipart effort to “identify best practices” in the classroom.

the crucial details of recruiting, course assignments, and mentoring of teaching fellows and junior faculty. Professor of Latin Kathleen M. Coleman, director of graduate studies for the classics department, said her discipline has long regarded teaching as “so integral in the handing down of the torch of knowledge” that it constitutes a major part of doctoral training. That impulse, combined with the harsh realities of the job market for classicists, make it imperative that graduating Ph.D.s be equipped to showcase relevant experience.

For at least a decade, each classics graduate student has built up a “teaching portfolio” alongside a completed dissertation. Among philologists, that has meant experience in teaching Greek and Latin to beginning students (demanding work where “skill, clarity of expression, empathy, rigor” and the ability to help novices master daunting material quickly all come into play); serving as a teaching fellow in a Core course offered by a senior faculty member (thus teaching material to non-concentrators); teaching a higher-level language course; and designing and offering a junior tutorial to classics concentrators. Thus as job applicants, they can present evidence of diverse teaching experiences, student evaluations, and letters of recommendation from a senior professor who has overseen their work.

Coleman also noted that the very existence of the new committee has encouraged further “self analysis.” Classics is

changing its record-keeping to track graduate students’ teaching on a consolidated basis alongside their academic work. And she thinks colleagues may begin to discuss who in the field “has a hotline to heaven” in teaching difficult topics, so those masters could be brought in to give workshops.

Donner professor of science John Huth, chairman of physics, described how efforts to improve science education have prompted sharper focus on teach-

ing. In general, his colleagues recognize that physics can be challenging, especially for students not concentrating in the field. Course faculty try to pair teaching assignments to match professors’ passions: “It’s that sense of enthusiasm that captivates the students,” Huth said. If a teacher is better at lecturing than instructing in a lab, or vice versa, assignments are adjusted accordingly.

Such assessments are based not only on CUE Guide ratings, but also on conversations between students and their freshmen and concentration advisers. Mallinckrodt professor of physics Howard Georgi, the department’s director of undergraduate studies, conducts a weekly physics study night at Leverett House, where he is master; that encourages further discussion of course material. These real-time reactions to the level at which material is being presented “tend to be the best feedback,” Huth said.

This year Huth expects to create a committee on junior faculty mentoring, as well. One possible strategy to improve teaching would have mentors attend their junior colleagues’ lectures and provide feedback. Such observing does not now occur.

Huth also reported “widespread recognition that we can do a better job” in the labs required in introductory courses. One goal is open-ended, realistic experiences, rather than “cookbook” experiments with obvious outcomes. Jene A. Golovchenko, Rumford professor of

physics and McKay professor of applied physics, and assistant professor of physics Jennifer Hoffman have taught freshman seminars in which students built apparatus on their own, often incorporating materials available at hardware stores, and then conducted experiments followed by discussion on ways to evaluate the validity of the results, and other activities that the normal diet of problem sets and routine lab exercises cannot elicit.

The transfer of experiences from those seminars to other courses, particularly the new physical-sciences sequence, and the prospective formal evaluation of peer teaching, are parts of what Huth called an effort to “identify best practices” and move them into more widespread use.

AS SUCH PRELIMINARY SIGNS suggest, there are abundant opportunities to improve upon teaching at Harvard. Many ideas for how to do so exist outside the University, and the task force intends to explore some of those it finds promising.

What if applicants for professorships presented not only their research but a “pedagogical colloquium” in which they dissected a syllabus, explained how to help students master an especially difficult concept, or detailed a teaching innovation? What if some professors in each discipline investigated how it was most effectively taught: observing, drafting case studies, presenting them for criticism, revision, and publication?

Such ideas are most closely associated with Lee S. Shulman, a past professor of educational psychology at Michigan State and Stanford and now president of the Carnegie Foundation for the Advancement of Teaching (www.carnegie-foundation.org). An evangelist for professional reform, he has argued for a “scholarship of teaching” as a full complement to the scholarship of “investigation” (or research) in defining faculty responsibilities.

Teaching as Community Property, also the name of Shulman’s best-known essay, is a call for “an end to pedagogical solitude.” By subjecting pedagogy to structured, documented analysis, peer review, and re-

Yesterday’s News

From the pages of the *Harvard Alumni Bulletin* and *Harvard Magazine*

1911 Witter Bynner ’02 writes the *Bulletin* to protest Harvard’s refusal to allow Emmeline Pankhurst to address the Harvard Men’s League for Woman Suffrage in Sanders Theatre. An anonymous “Old Grad” disagrees: “Aside from Amazons, mismated women, and sexless persons in female garb, the supporters of the fad of equal suffrage are few.”

1926 Answering the question “What is a Good Teacher Worth?” the *Bulletin* urges that Harvard pay its full professors a minimum wage of \$10,000 a year.

1936 A University telephone directory is issued by the *Crimson* and the telephone company. Lowell House, with 40 telephones per 100 inhabitants, out-classes Washington, D.C. (35.8 per 100), “top scorer in the outside world league.”

The newspapers of Cornell, Columbia, Dartmouth, Harvard, Princeton, Penn, and Yale jointly publish an editorial calling for an “Ivy League” of football, to preserve “the ideals of intercollegiate athletics.”

1941 The day after the attack on Pearl Harbor, undergraduates pack Sanders Theatre to listen to President Roosevelt’s war message to Congress; that evening, a cheering crowd of 6,000 hears Presi-

dent Conant pledge all Harvard’s resources to help ensure a speedy and complete victory.

1951 The Administrative Board refuses to permit women to stay in the Houses until 11 P.M., even though Yale has already extended its curfew to that hour.

1961 The Harvard Civil Rights Committee holds an emergency funding drive to support the Student Non-Violent Coordinating Committee volunteers registering voters in McComb, Mississippi.

1966 Several hundred antiwar demonstrators confront Secretary of Defense Robert S. McNamara, M.B.A. ’39, who is visiting Cambridge as the first honorary associate of the Kennedy Institute of Politics, and trap his car briefly.

1971 Newly installed President Bok and nine members of his staff accept a challenge from the *Crimson* to play a game of six-man touch football. The game ends in a 6-6 tie.

1986 The Faculty of Arts and Sciences votes to establish an honors concentration in the field of women’s studies. The lone dissenter, professor of government Harvey Mansfield, calls the new program a “foolish and almost pitiful surrender to feminism.”

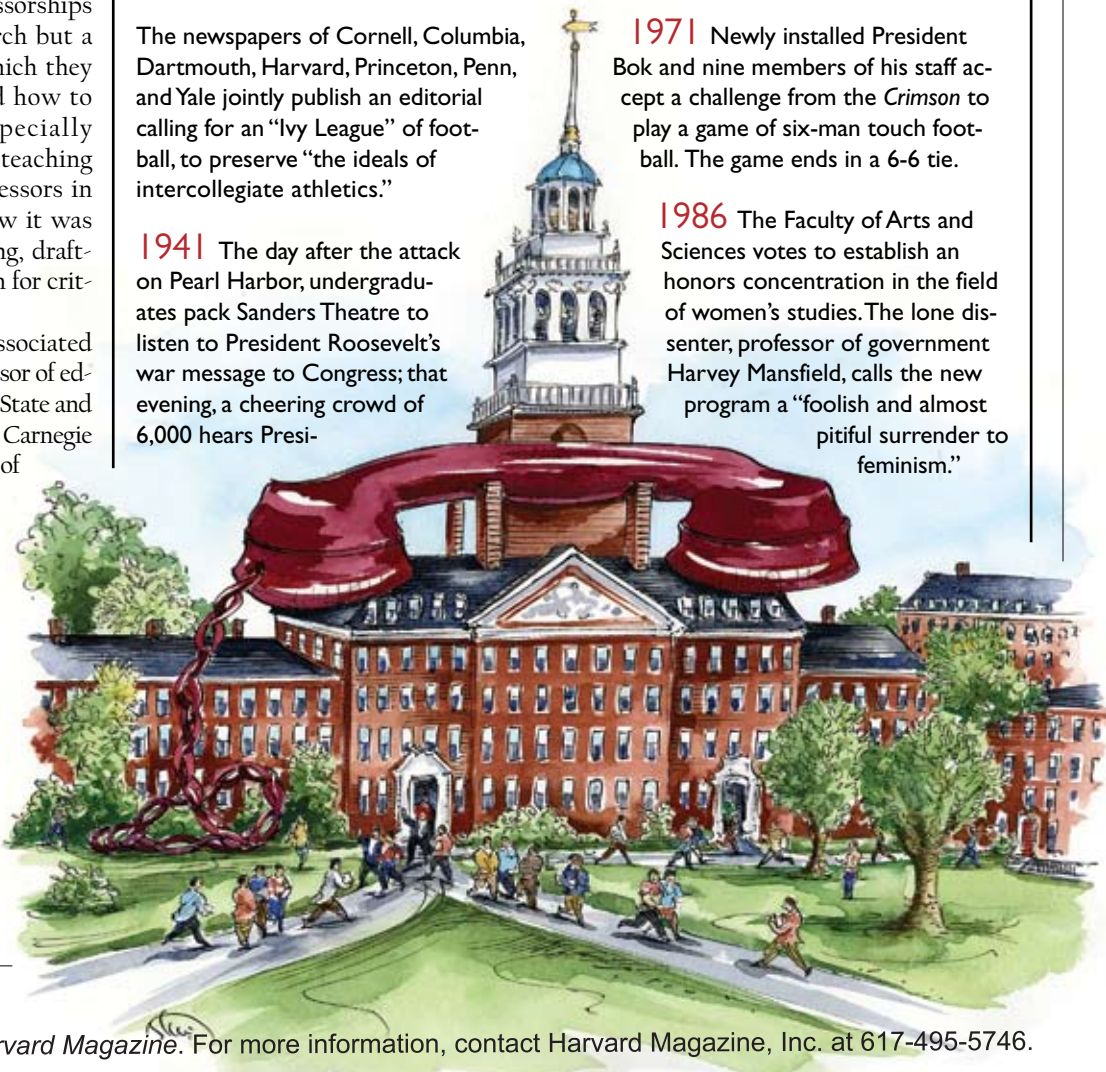


Illustration by Mark Steele

HARVARD PORTRAIT



Susanne Ebbinghaus

The recently appointed Hanfmann curator of ancient art at the Harvard University Art Museums and a lecturer on the classics, Susanne Ebbinghaus is an expert on, among other things, rhyta with animal foreparts in the Achaemenid empire and their reception in the West. This was the topic of the thesis that earned her a doctorate from Oxford in 1998, after undergraduate work in Freiburg, Germany, where she was born. She sometimes wishes she had picked objects for her attention that didn't need explaining to most inquirers, which doesn't diminish her interest in these typically horn-shaped, animal-headed vessels, used for prestige drinking by elites in the Persian empire in the later sixth century B.C. Rhyta have a hole at the bottom from which wine emerges nonstop unless one put one's finger over it, a messy and potentially riotous arrangement. The Greeks, who were apt in their literature and art to depict the Persians as effeminate and spoiled, adopted rhyta for their own use (for the world was a global village even then) but sometimes changed them into more sober cups. Behind Ebbinghaus in the photograph at the Sackler Museum is said to be the hero Meleager, who fought the Calydonian boar with Atalanta, but when curatorial duties permit she may investigate why he doesn't hold a spear and have a boar's head at his feet. She decided to get into her line of work when she was eight and her parents took her hiking to an ancient site in the desert in Israel during a sandstorm. She wasn't happy about the sandstorm, but her mother said, "Look at the ground. You can find shards." She did.

vision, he argued, the professoriate could transform itself—identifying approaches that best advance students' learning, enhancing teachers' own understanding of the material they present, and fueling continuous improvement. In a 2000 speech, he noted, "[O]ne of the reasons we have a tendency to ascribe great teaching to individual idiosyncratic genius rather than to systematic education, training, reflection, and mentoring, is that we have done so little of the latter."

But how practical is such a vision? In 1995, as chair of a Stanford subcommittee on the evaluation and improvement of teaching, Shulman proposed that new appointments would require "robust documentation" of teaching. Reappointments and promotions would require a "carefully documented" self-evaluation of teaching, and depend as well on "evidence that disciplinary peers have reviewed the quality of the candidate's teaching, including course design, quality of interaction with students through lectures, discussions, advising, etc."—and such reviews would extend beyond routine student evaluation forms. Deans, department chairs, and program leaders would "define the teaching missions of the unit," specifying the responsibilities of individual professors and the "preferred methods and standards for the evaluation of teaching," including peer evaluation. Departments were urged to develop disciplinary teaching seminars for doctoral students, with regular evaluation of teaching fellows—documentation that could become part of their portfolios. To advance a "culture of teaching," faculty colleagues were urged to exchange syllabi, invite peers to observe their classes, and hold teaching brown-bag discussions.

Nothing came of the program. "The serious problem," Shulman said in a recent interview, "is that the most prestigious research universities are the most reluctant to mess with the set of priorities and distributions of effort that they feel are at some level the secret of their success." Leaders of such institutions may engage in "a sincere rhetoric on the centrality of undergraduate teaching," but they are "almost totally impotent" at changing priorities on the ground.

When his subcommittee reported to the Academic Senate, Shulman recalled, a col-

league rose to say that “the relative weights of research and teaching at Stanford are three-to-one or four-to-one, and that’s the way it ought to be” for research universities. (The classic study of how this culture was formed, Shulman added, is Larry Cuban’s 1999 book, *How Scholars Trumped Teachers: Change without Reform in University Curriculum, Teaching, and Research, 1890-1990*, a case study of Stanford.) In Shulman’s experience, some of the large public research universities are “much more responsive” to these kinds of concerns, usually at the behest of individual faculty members or departments; for a detailed look at two of these institutions, see www.harvardmagazine.com/on-line/110622.html.

COULD MEASURES similar to Shulman’s take root at Harvard, where a productive culture of research and doctoral training has become embedded during the past century and more?

In *Our Underachieving Colleges*, Bok suggests that critics overstate the primacy of research relative to undergraduate teaching—but “nothing forces [professors] or their academic leaders to go beyond normal conscientiousness in fulfilling their classroom duties.” He seeks to create incentives for continuous improvement in teaching and learning. (The “neglect of pedagogy” in higher education, he also says, “is probably rooted in an instinct for self-preservation.”)

Rather than learning new skills and changing old habits, Bok suggests, it has been simpler for faculty members to extend the principle of academic freedom “to gain immunity from interference with how their courses should be taught”—today a matter of “personal prerogative” except in small liberal-arts colleges. But in spelling out the findings of recent education research, he concludes, “With encouragement and prodding, careful research, and modest support for innovation, leaders in every college can aspire to create a culture of honest self-appraisal, continuing experimentation, and constant improvement” in student learning—goals consistent with the mission of the new FAS task force.

Compared to Stanford’s experience a decade ago, Bok believes, external conditions might help bring about the kind of

changes that the task force is exploring. In conversation, he cited “increasing concern about the quality of undergraduate education nationally,” from the recent federal Commission on the Future of Higher Education to widespread worries about American economic competitiveness. He also pointed to Carnegie Foundation surveys showing “steady, gradual increases in the percentage of American professors who say they are more inter-

ested in undergraduate education and teaching.” And looming in the background is the larger accountability movement aimed at assessing educational outcomes generally.

As these trends converge, Bok said, there is an “opportunity for Harvard to try to demonstrate some leadership” on important, difficult issues and make “a genuine contribution to the development of undergraduate education in this country.”

Interim Agendas

ALTHOUGH Derek Bok and Jeremy R. Knowles are serving as president and dean of the Faculty of Arts and Sciences (FAS), respectively, on an interim basis, both have articulated ambitious agendas engaging large University issues.

In interviews with this and other publications (see www.president.harvard.edu), Bok outlined “a much more active year, with much more important substantive issues, than one might have expected” when he agreed last February to return to Massachusetts Hall for a limited time. He highlighted three such priorities.

- Undergraduate education. Bok hopes to “pick up and conclude successfully” the review of the College curriculum. An FAS working group of senior professors brought forward in early October a new approach to revising general education, for discussion during fall faculty meetings. Bok was thoroughly involved in the new, simultaneous effort to improve teaching, announced on September 4 (see page 60). His role in the swift decision to end early admissions (see page 68), announced a week later, contributed to the sense of moving Harvard forward briskly on such issues.

- Allston. Purchases of land for future campus development in Allston began in the late 1980s, toward the end of Bok’s first presidency. Now, with a first science complex being designed (see page 66) and a development-management organization in place, he aims to maintain momentum. A master plan is forthcoming soon, for review by the city of Boston, and internal design guidelines for future buildings are being prepared.

- Science. Bok said the report of the



University Planning Committee for Science and Engineering (see “Sweeping Change for Science,” September-October, page 71) reflects concerns extending beyond Harvard. As scientists pursue interdisciplinary research, of the sort envisioned for the Allston facilities, he said they sense that separate departments, programs, and schools “impede the very salutary effort to do exciting research with new combinations of people.” Given the responsibility of creating an environment for the best people to do their best work, Bok intends to examine how other universities may surmount such obstacles, and to “work away at barriers, to cut them down to size.”

Knowles, following a period of turmoil within FAS, intends above all to make the faculty’s affairs transparent—to build common understanding of issues that a successor dean will have to address in the long-term best interest of the College and the Graduate School of Arts and Sciences.

An overarching concern, he indicated, would be to bring “clarity” to FAS’s fiscal position. The Resources Committee projected last January that costs for adding professors (the ladder-faculty ranks have grown by 56, to 719, in just the past three