

Assessment and Accountability in Higher Education

Skepticism about higher education's reluctance to initiate efforts to assess student outcomes abounds. Highly visible pressure from the U.S. Congress, the Department of Education's Commission on the Future of Higher Education, the media, and the public, particularly tuition-paying parents, for greater accountability cannot be turned aside by even the most eloquent proponents of the intangible benefits of higher education. This year's Ford Policy Forum, an integral part of the Forum for the Future of Higher Education's Annual Symposium, focused on assessment and accountability in higher education. The Ford Policy Forum is chaired by Michael McPherson and Morton Owen Schapiro, presidents of The Spencer Foundation and Williams College, respectively. Its goal is to bring the insight of economists and other scholars to bear on key issues affecting higher education. Further, lessons drawn from the work described herein should encourage the development of policy recommendations and initiatives related to the complex and interdisciplinary issues surrounding assessment and accountability in higher education.

NOTEBOOK

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Achieving agreement on expected outcomes, improvement in teaching and learning, and the adoption of robust assessment measures will take a concerted, multidisciplinary effort on the part of higher education's leaders and faculty.



Calls for Assessment and Accountability

Traditionally, institutional quality has been measured by inputs, largely in terms of financial resources and the academic qualifications of students prior to their enrollment. With regard to outputs, we might convince ourselves that the combination of student/alumni feedback and the usual ways of certifying learning (written exams, oral presentations, performances, etc.) allow us to feel confident that we know what works and what doesn't in terms of enhancing academic performance. Or it may be that many of the outcomes we seek in our students actually are impossible to quantify. Howard Bowen's brilliant book, *Investment in Learning* (1977), includes a wonderful list of the qualities that higher education should seek to cultivate in students. To name but a few:

- creativity,
- intellectual integrity,
- wisdom,
- tolerance,
- esthetic sensibility,
- personal self-discovery,
- psychological well-being, and
- refinement of taste, conduct, and manners.

Needless to say, these qualities are not easily measured via standardized tests.

Still, our experience as college presidents makes it clear that difficulty in evaluating some key educational outcomes should not mean that we ignore the topic entirely. When a group of faculty discusses the importance of fostering creativity in our students, or a department chair defends putting a hundred students in a large introductory lecture versus placing them in smaller sections, we have found the lack of empirical analysis to be extraordinarily frustrating. Should we teach foreign languages with faculty trained in language acquisition or with literature scholars? Can economists teach writing along with their disciplinary tools? Is a laboratory component always necessary for a science course to be successful? Administrators are constantly called upon to make allocative decisions within and across departments and programs. Without output measures, we often do so in the dark.

We worry that if higher education doesn't become more explicit in its analysis of outcomes it will suffer the consequences. Congress, for example, recently held a series of hearings about the tax-exempt status of nonprofits, including colleges and universities. Certainly, improved means of demonstrating outcomes would strengthen high-

er education's ability to articulate its contributions to the public good. Public trust in higher education is crucial for its ongoing support—in terms of its tax status and federal and state funding—particularly given widespread media attention to low graduation rates and tuition increases that continue to outpace inflation. Better information about outcomes will help engender such trust.

By far, the loudest call for greater accountability has been issued by the U.S. Department of Education's Commission on the Future of Higher Education, aka the Spellings Commission, which released its final report in September 2006. That report focuses on four key areas: access, affordability, quality, and accountability.

In the preamble to its report, the commission wrote:

...American higher education has become what, in the business world, would be called a mature enterprise: increasingly risk averse, at times self-satisfied, and unduly expensive. It is an enterprise that has yet to address the fundamental issues of how academic programs and institutions must be transformed to serve the changing educational needs of a knowledge economy... (p. xii)

Concerning transparency and accountability, the commission wrote:

We believe that improved accountability is vital to ensuring the success of all the other reforms we propose. Colleges and universities must become more transparent about cost, price, and student success outcomes, and must willingly share this information with students and families. Student achievement, which is inextricably connected to institutional success, must be measured by institutions on a "value-added" basis that takes into account students' academic baseline when assessing their results. (p. 4)

We are convinced that the higher education community must spearhead the effort to develop outcome measures or others will impose their methods upon us.

Efforts to Assess and Improve Outcomes

We suspect that simple and obvious ways of certifying learning—for example, comparing a senior's GRE scores with the SAT scores that student received four years earlier—will not generate much support among the faculty. While we differ with some of the recommendations of the Spellings Commission, we wholeheartedly agree with its recommendation that "faculty...be at the forefront of defining educational objectives for students and developing meaningful, evidence-based measures of their progress toward those goals" (p. 24).

We enlisted two faculty members who have undertaken remarkable efforts to improve and assess teaching and learning to write and present papers for our session at the Forum for the Future of Higher Education's Symposium.

Assessing Outcomes in Mathematics

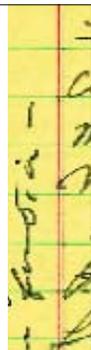
Uri Treisman is a professor of mathematics and director of the Dana Center at the University of Texas at Austin. A MacArthur Fellow, much of his work has been on nurturing minority-student high achievement in mathematics. His focus is on assessment and accountability in K–12 education. He describes an online system he developed to teach and assess student progress in math. Its key aspects include distributing assessment items that math teachers can use to determine whether their students are mastering the content of their courses, and helping math teachers share their best advice on how to teach. The results speak for themselves—a general improvement in math test scores, especially for low-income blacks and Hispanics. The moral is straightforward: figure out an outcome measure and trace progress to particular pedagogical approaches.

Treisman lays great importance on providing timely and meaningful feedback both to students and teachers and to administrators at higher levels. Such feedback loops are central to transforming schools into learning organizations capable of using their experience to improve. This approach contrasts starkly with state-mandated testing regimes, which often don't provide feedback on student performance until the students have already moved on to a new grade or a new classroom. Treisman's work on math education in the middle and high school years challenges us all to ask: Can we learn something about these precollege successes that is applicable to the higher education world?

Cultivating Leaders

Robert Sternberg is the new dean of Arts and Sciences at Tufts University, following an illustrious career as a professor of psychology at Yale. A former president of the American Psychological Association, his research has centered on how human potential is conceived of, identified, and nurtured. Sternberg emphasizes that the goal of a college education is not merely to develop students' knowledge base. Given the rapid pace of knowledge generation, the base students gain in college now will serve them well for a diminishing number of years later. Indeed, it would be a mistake for students to get locked into their knowledge as it becomes less relevant. Research has shown that experts often are more susceptible than novices to becoming entrenched and locked into conventional ways of seeing things, such that they are unable to think flexibly and escape the mental boxes they create for themselves.

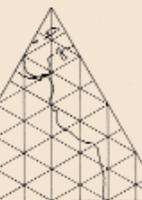
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The online system presents a structured set of scaffold assessments, which, if students succeed on them, indicate that they have mastered their course content. Today more than 400,000 students across the state of Texas are working on problems that large numbers of teachers and university faculty have created collaboratively. The system collects usage data every day. To help teachers assess student learning, the system allows teachers to easily see, for certain sets of problems they use in everyday instruction in class, how well their students compare with other students. To help them teach, the system allows them to correlate their students' ability to successfully complete one assessment with their ability to complete others, confirming whether assignments are worthy of their students' attention.

Sternberg considers how best to identify students who have the potential to use their knowledge base to become society's leaders. He argues that high school grades and test scores are imperfect indicators of whether a student will develop the four critical elements of leadership: creative skills and attitudes, analytical skills and attitudes, practical skills and attitudes, and wisdom-based skills and attitudes. To select future leaders, he suggests ways to expand the range of criteria for college admissions, in particular by adding tests of creative and practical skills.

Once such students arrive on campus, how should their leadership skills be nurtured? Sternberg describes a campus-based initiative to promote optimal learning and

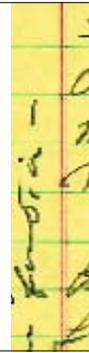


teaching. Most importantly, perhaps, for the purpose of our topic, he discusses a project to assess the value-added of a Tufts education in terms of the skills and attitudes that comprise leadership. The fact is that hundreds of colleges and universities proudly proclaim that the education they offer produces leaders. Yet very few offer any credible evidence that they actually do so, and just as few develop practices based on evidence about improvement in student leadership qualities to guide continued improvement in the educational program. The bottom line is that Sternberg believes that we can do a better job of assessing underlying talents based on high school records and can tailor learning during the course of an admitted student's college career to develop those talents.

Conclusion

Uri Treisman and Robert Sternberg come from disciplines, mathematics and psychology, that differ from our own and from the Ford Policy Forum's usual slate of speakers, who have disproportionately been economists. Assessment is an interdisciplinary art, however, and they have presented us with a range of ways to approach accountability issues, from assessment in the classroom to the selection of future students. Perhaps their work will encourage the higher education community to consider these issues more seriously than it has done in the past. If so, the two of us—and, we believe, many higher education leaders—would be thrilled.

The goal of a college education is not merely to develop students' knowledge base. Given the rapid pace of knowledge generation, the base students gain in college now will serve them well for a diminishing number of years later.



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