Definitions, issues, and concerns in efforts to document the quality and outcomes of undergraduate education are reviewed, and the University of Arizona assessment model is summarized to illustrate a comprehensive assessment plan suitable for a research university. The Arizona model is adapted to architectural education, and the special opportunities and challenges to be addressed by architectural educators who wish to document the quality and outcomes of their undergraduate programs are discussed. The Arizona model rests in the philosophical underpinnings that an undergraduate education should (1) help students acquire both general and specialized knowledge, (2) cultivate intellectual skills, (3) foster sound intellectual habits of mind, and (4) concern itself with student development. Major principles to inform the assessment design include faculty leadership, use of existing data, a multidimensional view of quality, multiple sources of information, and multiple methods of assessment. Assessment in professional schools and for schools of architecture is discussed. The field of architecture faces special challenges and opportunities in assessing the nature, quality, and effects of its programs. It must confront and solve the issues of assessment purpose, benefits, politics, method, coordination, and support facing all fields. Architecture faculty must design their own assessment thinking, strategies, and techniques due to the paucity of sources of guidance. (SM)
STUDENT ASSESSMENT IN ARCHITECTURE SCHOOLS

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Abstract

This presentation (1) reviews definitions, issues, and concerns in efforts to document the quality and outcomes of undergraduate education, (2) summarizes the University of Arizona assessment model to illustrate a comprehensive assessment plan suitable for a research university, (3) adapts the Arizona model to architectural education, and (4) discusses the special opportunities and challenges that will be addressed by architectural educators concerned with documenting the quality and outcomes of their undergraduate programs.

Keywords

architectural education
assessment
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program evaluation
New Definitions

The term "assessment" has taken on new meanings. Those of us old enough to remember the evolution in the 1970's of the term "evaluation" can remember the fits and starts and redefinitions that occurred in our growing sense of the new conceptualization. Today, the term "assessment" is following a similar course; many of our colleagues are these days quickly and repeatedly (and at conferences like this, perhaps even daily) revising their conceptualizations of this term.

The current assessment "movement" has emerged from a number of forces converging in higher education today: constricting resources, redefinitions of "quality," demands for institutional accountability, and the continuing need for program review, redefinition, reform in a rapidly changing world. The term "assessment" is tied closely to the term "excellence;" the notion of an excellent educational program -- once so easily described in terms of resources, reputations, and [undocumented] educational content -- is additionally being redefined. Newer ideas about excellence are more closely related to documentable educational processes and outcomes, and to concepts such as students' realization of their potential -- especially their potential as learners.

The Scope of Assessment

In remarks at a conference held earlier this year, E. Fred Carlisle, Provost at Miami University, reminded his colleagues that, like Moliere's character who for forty years had been "speaking prose without knowing it," we in professional schools may well have been "speaking assessment" all along. The titles and subjects of the papers in this symposium could at first glance lead one to believe that the current movement is simply "business as usual." Indeed, some of the program reviewers who saw the proposal for this symposium thought this was the case.

The current "speaking assessment" is different from "business as usual," however, in three respects. First, an institution's assessment program is usually a coordinated one, an effort to assemble information about how student progress and performance and the institution's quality and outcomes are documented in all corners of the school. Second, an assessment program often finds that some corners are empty, and seeks to fill in those corners. And third, an assessment effort usually serves multiple audiences (to use terminology from program evaluation) and often provides different information to each audience.

The extraordinary scope of assessment is manifest in the extraordinary scope of five elements of assessment: its varied motivations, purposes, political dimensions, definitions for important variables, and underlying models [not to speak of its strategies and tactics, also extraordinarily diverse]. For example, some assessment efforts have been mandated by various political entities -- a governor, a legislature, a university governing board -- while others have arisen from within an
institution’s ongoing curriculum planning or program review activity; while these are both political sources, the assessment effort’s strategies and its effects can differ substantially between them. Secondly, the purposes of assessment vary substantially, and not entirely in correlation with institutional type; at some institutions the purpose is student guidance, at others curriculum monitoring, at others documentation to external audiences, at most some combination of these. Third, because assessment has a political dimension, the realities of political and academic worlds can affect the effort’s questions, sense of time, nature of results, criteria for quality in information, methods of reporting. Fourth, assessment programs vary substantially in their conceptions of variables to be included. Some focus entirely on students as the units of analysis, while others analyze also at other levels in ways that are more than mere aggregation of student data. Some employ only standardized testing instruments, while others employ none. Some assess only knowledge, while others reach beyond the cognitive toward such variables as student development outcomes, critical thinking, and professional socialization. And finally, the models driving various assessment efforts range from those that are entirely unexplained to others very specifically described and defined. An example of a new but fairly developed model for assessment is ours at the University of Arizona.

The Arizona Model

In the spring of 1987, responding to the Provost’s invitation to develop a model to guide the University of Arizona in assessing the quality of undergraduate education, a Task Force of twenty presented a report outlining a period of transition to an established assessment program and recommending establishment of a Center for Research on Undergraduate Education to coordinate the program. The model rests in these philosophical underpinnings about undergraduate education:

An undergraduate education should help students acquire both general and specialized knowledge, should cultivate intellectual skills, should foster sound intellectual habits of mind, and should concern itself with student development.

The Task Force proposed that several major principles should inform the assessment design insofar as possible:

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1 The common fallacy here is to presume that curriculum guidance is the purpose of assessment at smaller, liberal arts institutions like Alverno, Kings, and Rhode Island, while at larger, research institutions like Tennessee or Arizona the purpose is accountability. The contrast is convenient, but reality is not so simple.

2 This Task Force was ably chaired by Clif Conrad, now at the University of Wisconsin and currently President of the Association for the Study of Higher Education.
Faculty leadership

A multidimensional view of quality

Multiple methods of assessment, including both traditional quantitative measures and interpretive approaches

Multiple sources of information

Use of existing data

The Arizona Model has the following characteristics:

- It emphasizes that assessment at this institution is intended to serve as a useful vehicle for enhancing the undergraduate experience -- to generate significant improvements in the quality of teaching and learning.

- It affirms that assessment of both programs and students is currently underway in many quarters of the University.

- It proposes that a more systematic and comprehensive plan is needed, one which can lead to improved teaching and learning.

- It proposes that ultimately the effort should be a value-added assessment of the institutional environment's effects on student learning and development.

The Task Force recommended an implementation plan to consist of several stages: (1) an interim transition period of eight months during which a faculty team would initiate several projects and the University administration (notably the Provost) would arrange funding and leadership for subsequent stages; (2) establishment of the Center for Research on Undergraduate Education with an experimental period for coordinating existing research and data collection, refining the assessment plan, and monitoring its implementation; (3) a stage in which outcomes assessment is the focus; and (4) a final stage in which the quality of the institutional environment is assessed and links can be drawn between environmental characteristics and student/institutional quality and performance.

We are currently at Stage 2 of this plan. The Center was established in January 1998, I was hired as its Director, and we have established an office -- housed in the College of Education in order to be coordinated with our Higher Education program -- with 1.33 (FTE) graduate assistants and an administrative assistant. Our Advisory Committee includes several people from the original Task Force. We have wise and savvy support from the Associate Vice President for Academic Affairs, to whom the Center reports, and his superior, the University's Provost and Senior Academic Vice President. We have made initial steps -- already modified from the Task Force's recommendations -- to include (a) gathering information about assessment of general education and specialized major field student variables in each department on
campus, (b) initiating longitudinal studies of sampled incoming freshmen and rising seniors, (c) designing and creating data bases from existing data sources around campus to support the individual studies contemplated, and (d) designing studies of certain populations in which we have special interest, for example hispanics, transfer students, and professional schools.

Assessment in Professional Schools

The assessment movement presents special problems as well as opportunities for professional schools. Because of this special situation, and also because there is a remarkable paucity of information about assessment in the professional school context, at the University of Arizona Center for Research on Undergraduate Education professional school assessment will be one of our research focus areas.

Professional school faculties and administrators find that the assessment movement has been significantly influenced by its roots in the liberal arts and sciences. Both small liberal arts colleges and large universities, both "outcomes" focused and curriculum-focused efforts are driven almost exclusively by arts and sciences interests, goals, and educational methods. Not entirely coincidentally, the most fully developed examples of successful assessment programs are those of such institutions as Alverno College, Northeast Missouri, Kings College in Pennsylvania, and Rhode Island College. Except for an occasional professional program lodged in an otherwise arts-and-sciences dominated school, these examples do not address the professional school's situation. For educators in professional schools whose universities are establishing coordinated assessment efforts, the existing published examples from the standard sources are discouragingly irrelevant.

A better example can be found in the outstanding work of the American Assembly of Collegiate Schools of Business. In contrast with many other professional fields' associations of schools, the AACSB has produced excellent guidance for its member schools, as we are hearing today from Robert Crowe. Many -- indeed most -- of the themes addressed in the AACSB publications on assessment can be applied to other professional fields.

Professional fields have several distinct advantages in designing assessment efforts. For one, they have a more tangible audience, the practicing professional community beyond the school's door. We know that relationships between the practicing community and the academic community is checkered and varied, but in this instance the practicing community can serve the professional school well.

The regular accreditation of professional schools can also be an advantage if we choose to regard it that way. The new accrediting guidelines for architecture, for example, will mandate certain documentation of student characteristics, institutional variables, program quality, and student outcomes that can place architecture faculties far ahead of their arts and sciences colleagues in assessing the nature, quality, and effects of their undergraduate programs. Other fields such as nursing
also hold this kind of advantage.

In fields with professional "apprenticeship" programs such as medicine and architecture, the internship can provide useful information for examining the long range influences of the undergraduate educational program. Research on graduates is easier when they move from the school into a prescribed internship where -- at least in theory -- rigorous monitoring of the student's skills and knowledge are part of the program.

Certification and licensure for practice by our professional schools' graduates can also provide information for assessment efforts. The problem with many professions is that item-by-item or even topic-by-topic information about graduates' performance may not be available to the school from the licensure examining board; the data further may not be available on a student-by-student basis.

A final advantage for professional schools can be found in the organizations of schools [of business, architecture, dentistry for example] that can serve as a resource to individual member schools embarking on newly coordinated assessment efforts. Just as in other areas, however, the professional fields vary in roles played by these organizations. As we are learning today, in Business the Assembly has taken a substantial role in providing assessment leadership to member schools. In contrast, in Architecture the Association of Collegiate Schools of Architecture has apparently not addressed this concern; as an organization ACSA generally takes a responsive stance in such matters, although of course individual conversations among individual administrators have touched on the topic of assessment.

Assessment for Schools of Architecture

The source of motivation for assessment is important. In an architecture school, assessment efforts can be driven either by an internal program-improvement impulse or an external impulse. External forces arise the institution's central administration or from other sources filtered through the central administration, or from outside -- for example the practicing community or accreditation bodies. The source of the impulse for assessing the nature, quality, and/or effects of the school's educational program will be the first -- but not necessarily the most important -- factor influencing the nature of the assessment effort.

Most important is the purpose of the effort, and closely allied is the question of who is to benefit from the effort. Following closely on the heels of these two questions is the problem of conceiving an effort that will actually meet that purpose, effect those benefits. It is one thing to affirm that the purpose is to foster student learning and that the ultimate beneficiaries are the students, and quite another to design into the assessment program from the start the mechanisms for looping findings back into program review and changed curriculum, institutional environment, or teaching practices.
Assuming that motivation and purpose/benefit/effect questions have been sufficiently addressed, an assessment design for architecture would follow from those decisions. A design could, for example, follow the Arizona model:

it could be based on a curriculum that helps students acquire both general and specialized knowledge, cultivate intellectual skills, foster sound intellectual habits, and concern itself with student development;

it could rest in major principles such as faculty leadership, a multidimensional view of quality, multiple methods of assessment [including traditional graphic/problem-based approaches and others], multiple sources of information, and incorporation of existing data as well as refinement of existing techniques;

With these premises an assessment program in architecture would, for example,

focus assessment to serve as a useful vehicle for enhancing the undergraduate experience -- to generate significant improvements in the quality of teaching and learning;

affirm that assessment of both programs and students is undoubtedly currently underway throughout the architecture program;

acknowledge that a more systematic and comprehensive plan could be beneficial, one which can lead to improved teaching, learning, and preparation for practice;

incorporate not only information internal to the school but also information available through the accreditation process, the practicing community, the internship, and the licensure process;

attempt, in sum, a value-added assessment of the architecture school environment's effects on learning and development.

Coda

How these goals can be met is a matter for another discussion, probably to occur in the future when assessment efforts are initiated seriously in at least a few architecture schools across the country. In architecture as in many other academic fields, it is very rare for faculty members to address overtly the questions and processes of "assessment."

The traditional conceptualizations of the architecture school environment rest in the field's Beaux Arts and Bauhaus heritage. The traditional approaches to appraisal of student performance assessment rest in an epistemology of criticism that is an entire paradigm shift of difference from the epistemological foundations
of assessment as it is most commonly conceived. We have written elsewhere of teaching, teacher thinking, and student performance evaluation in architecture; these methods evolve from the critical traditions of the field and are much more closely allied with the intellectual traditions of art or literary criticism than they are with the social science-dominated thinking that has informed the assessment movement.

In summary, then, the field of architecture faces special challenges and opportunities in assessing the nature, quality, and effects of its programs. First, this field like others in academe must confront and solve the issues of assessment purpose, benefits, politics, method, coordination, and support facing all fields. Second, because as a professional field architecture will be faced with a paucity of sources for guidance, architecture faculty will be forced to design their own assessment thinking, strategies, and techniques. Fortunately, third, architecture is assisted in this thinking by its orientation to tangible products. Fourth, however, architecture's greatest problem may be not the process but the paradigm shift. On its ability to make this shift may rest architecture's success in meeting the assessment challenge.