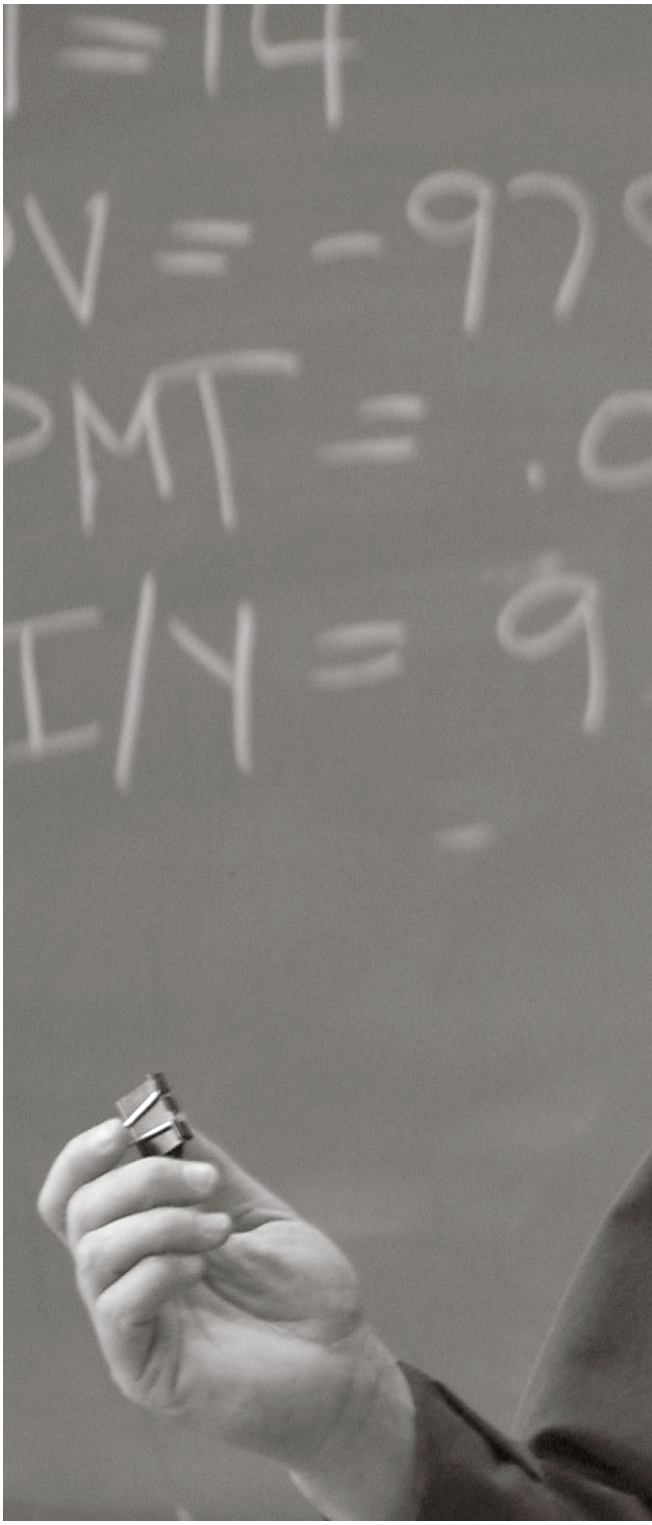
Quality in

OVER THE PAST FIVE YEARS the Quality in Undergraduate Education project, or QUE, has been making a bold and even risky venture into reform. The project's framing questions remain fairly simple: What happens if we offer resources and support for reform of the curriculum to arts and sciences faculty at public universities and two-year colleges—and ask them to work together? What if we ask them to describe what students ought to know and be able to do in their disciplines and then use that information to set standards for practice? The results, we expected, would benefit both students and faculty.

QUE is an equity project, founded on a belief that a high-quality public baccalaureate education should be accessible to all students.[1] Five years into the work, we observe with surprise and pleasure that we are progressing. Some students are enrolled in programs more focused, coherent, and intentional than ever before. Faculty are also collaborating to an unusual extent. How we got to this point might prove useful to others.

Assessment can organize a curriculum and lead to productive thought about teaching and learning



Connections

QUE is a collaboration among twenty-one colleges and universities in four states (California, Georgia, Maryland, and Nevada).[2] It groups regional two- and four-year partners together in "clusters." QUE asks faculty to draft voluntary standards and student learning outcomes in five arts and sciences disciplines: biology, chemistry, English, history, and mathematics. It would be enough to attempt this work within state-system universities, let alone in partnership with two-year institutions. And that's what we undertook. But leaving no risk unturned, we also decided to explore each discipline's responsibility for general education.

Once under way, the project needed experi-

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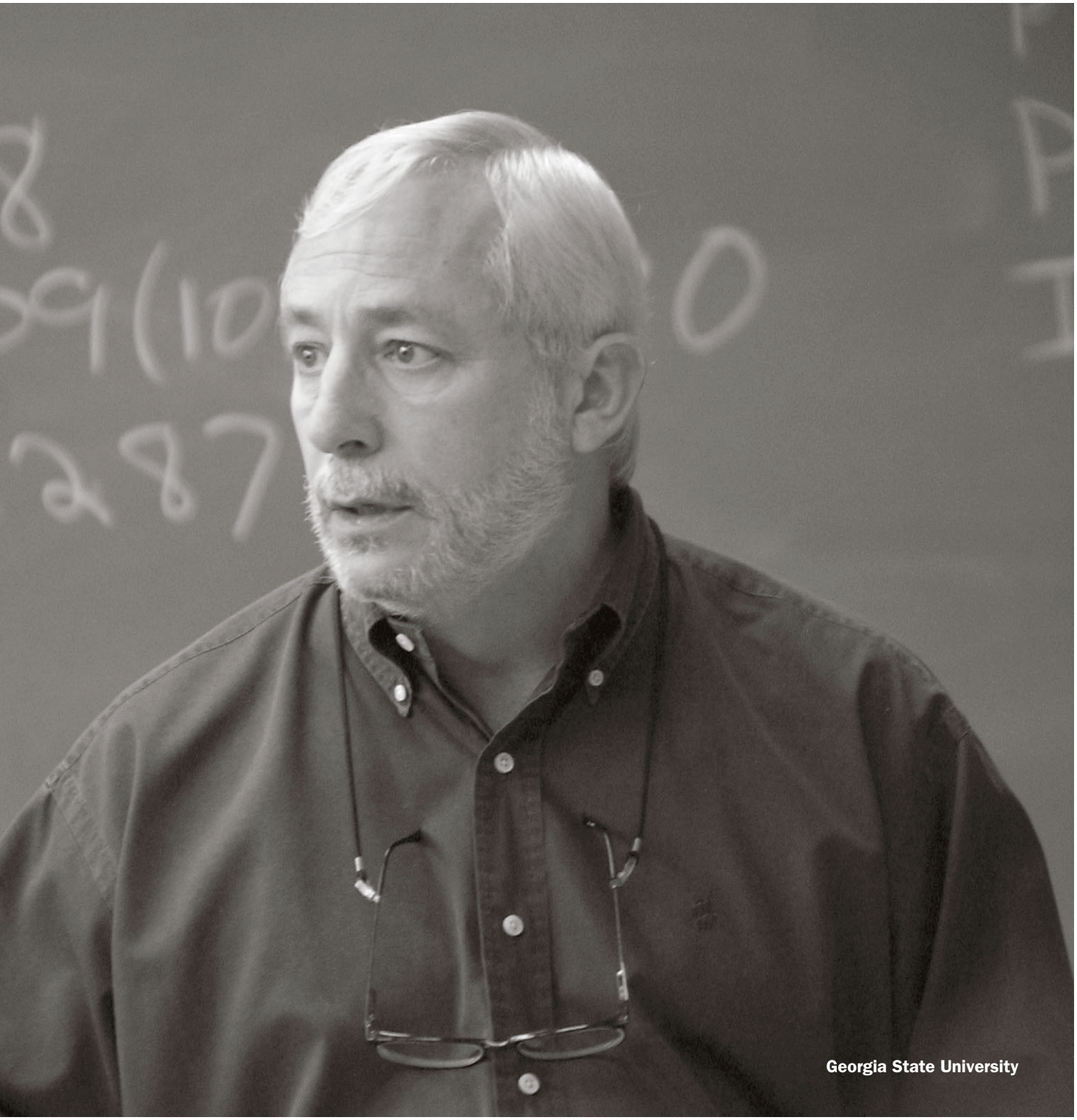
n Undergraduate Education

A Collaborative Project



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enced guides, and for that we hired external faculty consultants. We also connected our work to professional organizations, such as the American Chemical Society, the American Historical Association, the American Institute of Biological Sciences, the Mathematical Association of America, and the National Council of Teachers of English. In short, we created a network of disciplinary reformers who are now changing curricula in their home institutions. Because QUE functions as a project of the whole, no one discipline dominates. In this way we seem to have taken advantage of the ever-useful tension between disciplinary self-interest and the broader goals of liberal education.

Getting started

As leaders of the project, we began by describing how foundational skills and disciplinary knowledge intersect. Having begun to define knowledge and skills associated with a discipline, we needed not only to present a set of learning outcomes but also to locate those outcomes in time, along a continuum through a whole program. We chose to concentrate on the transition that marks the end of the first two years of college, a point that for convenience we called level 14. At this point large numbers of students transfer from two-year to four-year institutions. We also chose to concentrate on level 16, graduation, and assumed that general education would often extend through this level. This design has been relatively easy to explain and communicate.

We have proceeded in the belief that reform should start from within, its course charted by faculty. Given the pressures on public institutions for accountability and the emphasis on assessment for accreditation, we believe that there is a pragmatic strategy for faculty in setting standards for learning. These commitments have helped us understand that the project is as much an experiment-in-process as it is an effort to produce finished curricula. In the exploration, we have produced a great deal of useful material. Members of the project have also learned a great many lessons about the value of work carried out simultaneously in more than one discipline, in two-year/four-year partnerships, and across institutions.

Lessons from the faculty

Lesson One: To make an uncompromising commitment to learning, you have to start with deeply held beliefs about the discipline. In cluster meetings and at our semiannual national meetings, we began by asking faculty to list the ideal learning outcomes of their disciplines. The results show repeatedly that faculty know and enjoy discussing—but are hesitant to set down in print—what they value. Resistance arises sometimes from the belief that "everyone" in the discipline already implicitly shares the same

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standards. The American tendency to think individualistically about courses rather than collaboratively about the curriculum adds to the resistance. Speaking collectively, we do not often think about the meaning and identity of our programs that would give students the best opportunities to learn.

Some faculty believe that higher-order skills and deep understanding are too complex to be described or will not fit without reduction under rubrics, as, for example, describing the difference between a grade 12 grasp of metaphor and a college graduate's understanding. After discussion and practice, however, faculty in the project recognized the need for and developed a fluent understanding of disciplinary identity as it shapes the program and defines the outcomes. It was not easy to reach this point. The work requires a slow start and much hermeneutical circling until it becomes collaborative. Our consultants and the mixed groups brought perspective, ultimately enabling us to step back from local campus politics.

Lesson Two: You have to understand and use the language and practice of educational reform in a way that works for arts and science faculty. At national meetings of the members, we have made every effort to examine our own biases. In the minds of arts and sciences faculty, there exists a predictable bias against educational theory and reform practice and its specialized language. For example, *standards* and *assessment* carry seriously negative connotations, prompting fears of loss of academic freedom or visions of a mechanical and imposed curriculum. Discouraging experiences with K-12 reform activities and tense relations with college of education faculty may complicate matters. Though we expected to meet—and did indeed encounter—problems with the diction of the *standards* movement and, in particular, the word *standards* itself, we decided against euphemisms, preferring to deal directly with jargon and the specialized language of educational reform. We struggled with the difference participants perceived between voluntary standards and standardization, the threat of external control being the most obvious challenge. Sometimes we discovered a certain surprise in the new meaning of the word *rubric*, for example, never known to philologists before. In process, the fact that we had essentially the two cultures of the arts and sciences joined in this venture was helpful.

In practice, using the language of learning cultivates a new perspective on teaching

In practice, using the language of learning cultivates a new perspective on teaching. For faculty who are committed to their disciplines first and have never read Barr and Tagg (1995), the shift in emphasis from teaching to learning can nonetheless be useful and unproblematic. Much of the discourse on learning is now accepted in disciplinary discussion.

Our QUE members gradually came to believe that for the majority of students learning-centered approaches are more effective than are more traditional "input" or teaching-centered approaches. Further, we understand that students will benefit through faculty collaboration on the curriculum and that the experience of learning through a complex system of schools and colleges can be stronger, deeper, and more rational than it is now.

Lesson Three: If you want to reform learning, you have to talk about grades and assessment in a program. We expected and we often did hear, especially in the first years, that the current system is fine: Students who work hard and have ability succeed; grades and course credits have worked for decades; innovation breaks an implicit contract with students; faculty teach students, and students learn or don't or can't. We know that institutions award degrees according to courses passed, not according to learning outcomes (Doherty et al. 2002). Although the limitations of the grading and sorting system are fairly easy to communicate, the barriers to change are enormous even to those who perceive the limitations.

Although many faculty express concerns about grade inflation, they seldom agree that the system has irremediable flaws. A grade in a course is supposed to denote an award for a combination of effort and mastery of material, so that grading is an individualistic activity. Unless a high rate of failure pushes students to complain, we tend to stop thinking about grades when the individual course ends. Overall, grades do not and cannot communicate information about sets of courses in programs. Collectively, our members did see that grades are a poor proxy for learning (Ewell 2000).

We have discovered through our work the value of assessment as reflective practice within an expanded community of judgment (Ewell 2000)—setting standards that provide a common

reference point for evaluating student work beyond the limits of grades. Assessment can organize a curriculum and lead to productive thought about teaching and learning. We offer the premise that faculty who experience collaboration on the program as a positive feature of their work life will engage in discussions, planning, and implementation of assessment. As a group, faculty in the project have found that outcomes for a program transcend those of a particular course.

Lesson Four: Two-year institutions and four-year institutions have trouble collaborating, but partnership is possible. One of the strongest benefits of the project has been the development of healthy connections across institutions. We have faced the difference in culture between two-year and four-year institutions. Faculty in two-year colleges typically have less autonomy than those in four-year. Further, they typically carry very heavy teaching loads and have little time for involvement in educational reform. Four-year college faculty often believe that two-year colleges tend to emphasize skill development, literacy, and rote learning. Having all too often heard the assumptions of four-year colleagues, two-year faculty are sometimes defensive. Moreover, misunderstandings can work both ways, as difference in status shapes behavior. As a result, there is sometimes disrespect, often unintended or unconscious, and miscommunication between two-year and four-year faculty. But partnership is possible.

Success here, as in so many areas of work, demands a viable process and sustained attention to relationships. Because the project is a voluntary effort, we began of necessity with a subset of faculty from disciplines in the partner institutions, most often those specifically interested in students' learning. Through national meetings over several years, some members of the group developed durable relationships and addressed the issues frankly. We also observed that faculty in all institutions want to talk about the needs of transfer students. As we learned strategies of leadership in collaboration, we have found it possible to recruit more faculty and enlarge the circle of cluster participants.

We find that strong faculty leadership and administrators' involvement are essential to build bridges between two- and four-year colleges.

What we have accomplished

With QUE we saw a need to develop, publish, and publicize our work on outcomes and standards for learning in the disciplines. From the beginning we recognized that respected faculty must lead the project and engage the department as a group and that administrators must support the work at all levels. Administrative orientation to institutional welfare must work in productive tension with faculty's loyalty to the academic discipline. We found it necessary to have separate cluster coordinators for each discipline at each two-year/four-year partnership. With effective coordination, departmental engagement, and administrative support, the project functions well. We see progress between each of the national meetings when often

enough conceptual leaps are made; change and progress appear in the materials brought for discussion—program goals, course syllabi, assessment plans.

Contributing to our success has been our uncompromising emphasis on learning. As one cluster observes, "Our three campuses share many students, and the faculty share an interest in seeing that students succeed." Further, as the project proceeds and faculty become more comfortable with each other, the mood has shifted from the more formal "assessing student learning by means of criteria-referenced rubrics," to whimsy: "Dr Rubric; or, How I Learned to Stop Wasting Time and Love Assessment" was the title Lendol Calder, historian, Carnegie scholar, and QUE critical friend, gave a session at our September 2002 meeting.

We know that we have been correct to argue that standards should not be imposed. The success of the project depends heavily on its voluntary character. A learning-centered curriculum should emerge from thoughtful discussion by faculty who are prepared to state their expectations after a series of courses. The curriculum ought to be the responsibility of disciplinary faculty; the department ought to sanction an individual course that contributes to the curriculum. Experience shows, moreover, that there is no necessary infringement of academic freedom

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within a standards-based curriculum that arises from the faculty.

We have learned to be systematic about goal setting. QUE emphasizes: (1) outcomes for a course and formative assessment for students in a course; and (2) outcomes for a program, considering general education outcomes within disciplinary context, with formative and summative assessment for students in a program.

We have learned that we need to examine the whole system—the program curriculum, as well as the individual parts, the courses. It is a considerable undertaking, with incentives uncertain. But it's not such a large task if faculty recognize that many of the elements are in place: Faculty know what learning outcomes are desirable. It is a matter of will to make these outcomes explicit and agree to them as a group. Faculty new to this work may begin by aligning an assignment with a learning outcome and, eventually, with the resulting student work. The practice, we learn, is recursive and reiterative.

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We have not found that one entry point works better than another. Some groups began with graduation learning outcomes and worked backwards. Some worked on levels 14 and 16 simultaneously. One coordinator's history team developed level 14 and 16 learning outcomes at the same time. "You had to," she explained, "to know what people have when they come in at the gateway course, and then, where you want them to be when they finish with the capstone course." Another leader found that the team needed to keep an eye on graduation as the endpoint, "So that to the extent we redesign the freshman curriculum, we also redesign the trajectories for upper-division courses."

We have learned to approach assessment as a register of each student's progress through the curriculum, not just in a particular course. Some participants have found that conceptual map-

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ping of the curriculum helps to locate courses within the program and begins to suggest how skill development or higher-order thinking ought to emerge in students' performance at certain points. We have been challenged to understand and document what students learn when they take courses randomly. For many participants an (electronic) portfolio or an advanced program for advising appears to be an essential feature of a learning-centered curriculum.

Perhaps the most important sign of our advancement in this project is our fluency as a group in dealing with its challenges. While we would not pretend to have solved all problems, by comparison with our former selves, we are becoming amazingly articulate on matters of the curriculum and learning. We see that systemic change is underway in this project and others, though we cannot predict how deep or sustainable it will prove to be if state and federal support for public education continues to decline.

From experience we observe that a learning-centered approach, with degree or program standards public and explicit, can enable students to know what they are expected to understand, faculty to know what to teach, and the rest of the world to be cognizant of what graduates are learning in college. We continue to believe in a rational and systemic alignment that has never yet existed in public education in the United States. □

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To respond to this article, e-mail **liberaled@aacu.org,** *with the authors' names on the subject line.*

NOTES

1. QUE grew out of discussions in 1997 convened by the Education Trust and the National Association of System Heads (NASH), organizations devoted to K-12 education and to postsecondary engagement in kindergarten through college (K-16) education. We were interested initially in developing benchmarks at the end of general education and at graduation from college, hoping to improve students' performance and persistence in high-enrollment state systems of education, kindergarten through college.
2. The first institutions involved in the project were California State University Long Beach, Long Beach City College and Golden West College, Georgia State University and Georgia Perimeter College, and the University of Nevada Reno and Truckee Meadows Community College. Interested two-year and four-year faculty and administrators chose to work across states in biology, chemistry, history, and physics (though physics did not thrive). It was a voluntary effort from the start. A year later, English faculty from Towson University and the Community College of Baltimore County joined the project. In winter 2000-2001, the project received funding from the Pew Charitable Trusts and the ExxonMobil Foundation. We added mathematics as a discipline. At that time the project was expanded to include California State University Fullerton and Fullerton College. Armstrong Atlantic State University and Coastal Georgia Community College, Fort Valley State University and Middle Georgia College, and Valdosta State University and Abraham Baldwin Agricultural College came in from the University System of Georgia. Salisbury University from the University System of Maryland, Chesapeake College, and Wor-Wic Community College joined, as did Western Nevada Community College.

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