PART ONE

THE CONTEMPORARY AND HISTORICAL CONTEXT OF LEARNING COMMUNITIES

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LEARNING COMMUNITIES AND UNDERGRADUATE EDUCATION REFORM

Vital and successful institutions stand out by their ability to maintain direction and a sense of meaning even amid significant shifts in the social landscape. . . . Now, however, as major economic and social change shakes American society, higher education is facing serious tests of its resourcefulness.

—William M. Sullivan

WE STAND AT AN IMPORTANT JUNCTURE in higher education, a time that calls for new levels of resourcefulness in thinking about undergraduate education and the relationships between the academy and its communities. We know more about what promotes student learning than ever before, but we still face considerable challenges in putting what we know into practice. Our students are increasingly diverse and the ways they attend college have changed dramatically in the last thirty years. The bucolic vision of students attending residential colleges has faded as more and more students commute, often attending two or three different institutions during the postsecondary experience. Many simultaneously hold full-time or part-time jobs and have family obligations. They step in and out of our institutions, combining a community college program with on-line courses and a residential experience. At the same time, a college education is becoming increasingly important, as our society's expectations for student performance rise and the emphasis grows on the new

skills and abilities everyone needs to navigate and succeed in a changing, multicultural world.

Current faculty members, both those who led and those who resisted curricular change for the past twenty-five years, are retiring, offering an unprecedented opportunity to change the face and philosophy of the professoriate. Still, we know that new faculty are being educated in ways similar to their predecessors. Although there has been some progress in shifting the priorities and rewards to teaching, recent studies suggest that research remains a dominant force in the faculty culture. The nature of academic appointments is also changing, raising a host of questions about the implications for undergraduate education and the nature of community on our campuses. The issues of faculty succession and faculty work life thus become linked with educational reform.

We also find ourselves facing enormous political and financial challenges. Many of the publications cited in this chapter point to a financial crisis in higher education. Administrators spend too much time managing declining resources and trying to figure out ways to sustain their institutions. Our society is verging on an economy that requires nearly universal college attendance, while at the same time the prospective student population is the most diverse in our history. Jane Wellman's monograph *Weathering the Double Whammy* (2003) describes a broad fiscal crisis combined with a minority and immigrant student population that will require larger amounts of financial aid. Thus, access and affordability, hallmark challenges in the late twentieth century, continue to press higher education's social commitment to a better educated society in the twenty-first century. We are being asked to do more with less, to find more effective and less costly ways to improve student learning.

In response to these challenges, learning communities have arisen as one of many reform efforts in undergraduate education. Now offered at more than five hundred colleges and universities, learning communities have become a far-reaching and ambitious movement. Learning communities restructure the curriculum by linking or clustering two or more courses and enrolling a common cohort of students. We believe they are one of the most powerful interventions on the educational landscape because they provide a comprehensive, cost-effective framework for enhancing student learning that is applicable in many different types of institutions. Furthermore, a growing body of research demonstrates their effectiveness in addressing a variety of issues, from student retention to curricular coherence to faculty revitalization. Learning communities have much in common with many other reform efforts in their aspirations for and assumptions about what promotes student learning. Indeed, they

provide a structural platform for integrating many of these other reform efforts, such as service learning, collaborative learning, and various inquiry-based approaches to learning.

In this chapter we explore the higher education landscape and the challenges that the academy now faces. This discussion is essential to understanding why higher education is at such an important juncture. We then turn to recent calls for reform that, as we shall see, make increasingly convergent recommendations. Taking on change in a time of limited resources is difficult but necessary. Clearly, we need ways to learn to do our work better and more effectively, to help students become better learners. The chapter concludes by explaining how reforming undergraduate education through learning communities has emerged as one way of accomplishing this.

Challenges to the Academy

New Colleges, New Students, New Challenges

In the last four decades higher education in the United States has been transformed through a dramatic increase in the number and types of colleges and universities and a corresponding increase in student enrollment. The expansion of the higher education system has created unprecedented opportunities for place-bound students. Enrollment in two-year colleges went from fewer than half a million in 1960 to four million in 1980 (Kerr, 1990). Half of all students in the United States today spend their freshman year in a community college. At the same time, institutions of all types have become more comprehensive and wide-ranging in their curricular offerings. Although state-supported colleges and universities educate a growing proportion of all students, new types of institutions have also appeared. Nontraditional progressive colleges, for-profit colleges and universities, and institutions that use technology as their primary mode of instruction have emerged. In addition, many existing colleges and universities have reexamined their missions. In America's research universities, where one-third of all undergraduates earn their baccalaureate degree, undergraduate education has clearly become a greater priority although the reach of the reform efforts falls well short of our aspirations (*Reinventing Undergraduate Education,* 2001; O'Connor and others, 2003). Many other four-year colleges and universities have crafted new mission statements. The result has been the identification of new sectors in higher education—from "the urban university" to "the new American college" to "the public liberal arts college" (Spear and others, 2003).

As higher education has expanded, the student body has become much larger and more diverse in terms of age, gender, ethnicity, and cultural background (Marcy, 2002; Newton, 2000). Now only 16 percent of the student population may be described as "traditional"—that is, ages eighteen to twenty-two, attending college full-time, and living on campus. Many now attend college part-time. More than 70 percent work, and 41 percent are over age twenty-five (Marcy, 2002). Many of these new students are the first generation in their family to attend college. The majority of the new students are women.

Patterns of college attendance have also changed. Largely commuter institutions have become a pervasive force in higher education, raising pressing issues about how to create a meaningful academic community in a nonresidential, transitory setting. Even more problematic when it comes to maintaining academic community and coherence is the precipitous decline in the number of students who attend only one college for all four years. Few students now graduate from the institution at which they began their college career.

The fates of the two-year and four-year colleges have become intertwined, and issues of transfer and interinstitutional articulation are increasingly important. To complicate matters further, recent studies show that students do not flow logically from high school to college or from two-year to four-year institutions (Ewell, 2002c; Adelman, 1999). In fact, there is substantial lateral movement across four-year institutions and considerable reverse transfer between two-year and four-year schools. Meanwhile, relationships between colleges and high schools have become increasingly complicated. Widespread reform efforts in primary and secondary education are aiming for higher levels of student achievement, and a number of "early college" efforts are demonstrating ways to integrate the high school and college experiences and increase college attainment rates (Hoffman, 2003). At the same time, expectations for students are rising as our society becomes increasingly dependent on the kinds of knowledge and skill that are gained through higher education. In fact, the Association of American Colleges and Universities asserts that we are verging on universal college attendance as a college degree becomes the equivalent of a high school education one hundred years ago (*Greater Expectations,* 2002).

The challenges of educating a new generation of learners become apparent when we tackle the issues of student preparation and achievement, the mismatch between student and faculty expectations, and the differences between what colleges think is important and what parents and employers want. Although American higher education is often said to be the envy of

the world, the level of student achievement and preparation needs to improve. Many statistics indicate this to be the case:

Although high school graduates may have taken the correct number of courses to graduate, more often than not they are not the right courses for pursuing postsecondary education. "About 50 percent of all first-time community college students test as underprepared for the academic demands of college-level courses. . . . This percentage . . . has not changed significantly across the United States in at least two decades" (Roueche and Roueche, 1999, p. 5).

Students' academic preparedness is down on a variety of measures, but students' confidence in their abilities is higher than ever (Hansen, 1998).

"While participation rates in higher education have increased, the gaps between high and low income levels and college completion rates have not changed" (Roueche and Roueche, 1999, p. 3). In addition, "numerically, minority students are less equal now than they were thirty years ago on the criterion that really matters: college graduation" (Renner, 2003, p. 40).

As Karen and Karl Schilling point out, we need to look at expectations for effort and engagement if we are to improve student learning. Their research at seven institutions demonstrates a substantial mismatch between student and faculty expectations for academic work outside class, with faculty expecting three times more time on task than students report actually undertaking. Perhaps most significantly, the patterns of first-year student time investment seem to be durable across the four years, implying that the freshman year is an important place to set expectations and study habits (Schilling and Schilling, 1999). The 2002 Cooperative Institutional Research Program (CIRP) annual national survey of students corroborates these findings that students are studying less than ever, declining to an all-time low of 33 percent devoting six or more hours per week to studying (Higher Education Research Institute [HERI], 2003). This recent CIRP survey also indicates that trends among students show "grade inflation, increasing financial concerns, heightened stress, academic and political disengagement, declining social activism, and record-level volunteerism" (HERI, 2003, p. 16).

There is a growing demand from employers and parents and from inside the academy itself for a new kind of education that has higher expectations (*Greater Expectations,* 2002; Jones, 2003). Many are calling for a practical education that increases students' capacities for dealing with a rapidly changing world. They emphasize teamwork and collaboration and developing problem-solving skills rather than memorization and the accumulation of facts that will soon become obsolete. Often referred to as "lifelong learning" or "deep learning," these capacities have

become imperatives in our rapidly changing society. In fact, the new research in cognitive science suggests that lifelong learning is also fundamental to our long-term health (Quartz and Sejnowski, 2002).

The Changing Face of the Faculty and Faculty Work Life

Over the past thirty years both the nation's faculty and faculty work life have undergone enormous change. After the large-scale expansion of the higher education system in the 1960s and 1970s, the academy is now in the midst of another shift as large numbers of faculty retire. In fact, more than one-third of the faculty turned over in the 1990s. In a significant study of the entering cohort, Finkelstein, Seal, and Schuster (1998) noted that this new generation is markedly different from the previous generation: these individuals are much more diverse, international, and female, and fewer are based in traditional liberal arts fields. An increasing number come to full-time positions after years of part-time work, and others come from outside the academy altogether.

Surprisingly, however, despite years of national attention on improving teaching and learning and rebalancing faculty roles and rewards, the new cohort is even more research-oriented than their predecessors (Finkelstein, Seal, and Schuster, 1998; O'Meara and Rice, 2004). In general, the new cohort does not differ markedly from their predecessors in relying on traditional lecture-based pedagogies, although women faculty have been found to spend more time with students and rely less on lecturing (Finkelstein, Seal, and Schuster, 1998). This information is corroborated by other recent studies of the freshman year that indicate a growing mismatch between students and faculty, with students reporting that most classes are lecture-based whereas they prefer more experiential approaches (Sax, 2000).

The structure of academic appointments is also changing. More faculty members are being hired to part-time and non-tenure-track appointments. This trend is expected to continue, raising concerns about equity, self-governance, and the ability to build strong local communities of faculty. "The faculty" is becoming a vast territory including different types of appointments with little systematic attention paid to supporting the needs of all. Few institutions, for example, match the University of Phoenix in the attention paid to part-time faculty although these faculty members constitute a majority of the teaching faculty at many institutions.

What we are also seeing is what Martin Finkelstein and Jack Schuster refer to as the "functional respecialization of the faculty, especially in research universities" (Schuster and Finkelstein, 2001). As Jack Schuster

explains, "By this we mean that for 125 years or so the academy has focused on becoming more specialized (and subspecialized) by content area, for purposes of teaching and research. But now . . . a lot of faculty (the off-track, full-time) are being hired for teaching-exclusive or research-exclusive purposes. . . . This shift (it is hardly hyperbolic to call it revolutionary) entails a tangle of trade-offs for undergraduate education: promoting a much overdue reemphasis on teaching, but at the same time, in more subtle ways, undermining the long-term attractiveness of academic careers. In fact, the changes are progressing more rapidly than we can measure them, much less comprehend the downstream implications" (Jack Schuster, personal communication with the authors, October 2003).

Meanwhile, new conceptions are emerging of who can be a teacher and what being a teacher entails. The new universities that deliver education through technology have led the way in redesigning and disaggregating the four traditional faculty roles of curriculum design, curriculum delivery, assessment, and advising. By distinguishing these roles, it becomes obvious that other experts outside the traditional faculty can contribute to student learning and provide expertise that traditionally trained faculty may lack. Numerous reform efforts build on this insight, such as service learning initiatives that involve community members in instructional roles. Learning communities too are experimenting with new roles, building teaching teams that include librarians, student affairs professionals, and student peer leaders who bring new expertise to teaching in more traditional settings.

Calls for Reform in Undergraduate Education

A widespread national consensus is emerging about the issues we face. It is clear that we are on the edge of nearly universal higher education while we are still operating with an infrastructure built for a more selective, homogeneous student body and more generous financial resources. Furthermore, we know a great deal more about what promotes student learning: if widely adopted, these new practices could significantly raise levels of student achievement. Many of our policies, practices, and assumptions are no longer viable. Although there is no clear agreement either about what an undergraduate education should be at the beginning of the twenty-first century or about how to marshal the resources to achieve the vision when it is developed, there are numerous calls for reform and a growing research literature on student learning that offer guidance. With large-scale faculty retirements on the horizon, there is no better time to find ways of putting more effective practices into place.

Myriad recent studies recognize that higher education must restructure itself to meet the new challenges. They stress the rising stakes of underperformance in higher education and point toward concrete ways in which the academy can move ahead to improve undergraduate education and incorporate new information about student learning. Exhibit 1.1 summarizes recent significant reports on the different sectors in higher education. Although each speaks to the history and mission of its particular constituency, they have many similar themes and make similar recommendations. First and foremost, of course, is the need to provide access to a growing and diverse population and educate these students effectively. Some, especially those in the sciences, point to an alarming trend toward inequality in our higher education system, which endangers both our economy and our democracy. As one put it, "It is a fundamental responsibility of a modern nation to develop the talent of all of its citizens" (Project Kaleidoscope, 2002).

The reports also recognize that new approaches are needed to reach all students. Whether it is a commitment to a twenty-first century practical liberal arts education, as the Association of American Colleges and Universities (AAC&U) advocates, or the panoply of inquiry-based approaches to learning that the Boyer Commission urges all research universities to embrace, all recognize that both the form and the content of our curriculum must change. Many of the reports describe a variety of exemplary programs, demonstrating that we already have some excellent institutional models in all types of institutions. The challenge is to encourage wider adoption of these promising approaches.

A third important theme is the relationship between the academy and the larger society. All of these studies advocate for an engaged campus that is connected to the external community in meaningful ways. Like the community colleges, the state and land-grant universities have a long history of community-based education. Thus, it is not surprising that the title of the report compiled by the Kellogg Commission on the Future of State and Land-Grant Universities was *Returning to Our Roots* (2001). But this is not a call for a nostalgic return to the past; both the Association of American Colleges and Universities and the Kellogg Commission articulate a new vision for connecting the academy with the community that is squarely rooted in the twenty-first century and addresses local, regional, and increasingly global issues.

All of the recent reports recognize a need for institutions to rise above "business as usual" and put together a coherent response to the academy's challenges. This calls for difficult dialogues that are fundamental to exercising leadership and forging a renewed sense of purpose. It will also

Exhibit 1.1. Recent Major Reports on Undergraduate Education Reform

Greater Expectations: A New Vision for Learning as a Nation Goes to College (Association of American Colleges and Universities, 2002)	Analyzes the challenges facing higher education and makes the case for practical, learner-centered changes and a new notion of liberal learning. Describes many exemplary approaches already in place, including active and inquiry-based approaches and learning communities.
Returning to Our Roots (Kellogg Commission on the Future of State and Land-Grant Universities, 1999–2000)	These are six reports on the future of state and land-grant universities and the gap between the teaching and research missions. Report themes include the student experience, student access, the engaged institution, a learning society, a coherent campus culture, and renewing the covenant. Reports stress the need for reengagement and restructuring to become genuine learning communities.
Reinventing Undergraduate Education: A Blueprint for America's Research Universities (Boyer Commission on Educating Undergraduates in Research Universities, 1998)	Argues for the reinvention of undergraduate education in research universities with recommendations on areas to pursue, including undergraduate research, integrated first-year programs, collaborative learning, freshman seminars, capstone courses, inquiry-based teaching, faculty development, and others.
Reinventing Undergraduate Education: Three Years After the Boyer Report (Reinvention Center, Stony Brook, 2001)	Analyzes the extent to which research universities have responded to the Boyer Commission recommendations. Finds substantial responsiveness but also a need for reaching a wider spectrum of students and integration with faculty roles and rewards.
The Knowledge Net: Connecting Communities, Learners, and Colleges (American Association of Community Colleges, 2000)	Presents the case for community colleges to respond to massive societal changes and create learning-centered changes relevant to the twenty-first century.
Transforming Undergraduate Education in Science, Mathematics, Engineering, and Technology (National Research Council, 1999)	Argues that we are divided into a technologically knowledgeable elite and a disadvantaged majority. Calls for new approaches for all undergraduates to study science, math, technology, and engineering early in their undergraduate education.
Report on the Reports: Recommendations for Action in Support of Undergraduate Science, Technology, Engineering, and Mathematics (Project Kaleidoscope, 2002)	Summarizes the major reports in K–12 and postsecondary science education from 1986 to 2001 and concludes that the recommendations are largely congruent in terms of the case for reform. Stresses the need for new approaches that bring all undergraduates to an understanding of the role of science and technology.

require an unprecedented level of commitment, collaboration, and holistic thinking that in many ways goes against the grain of our habits and our structures. Despite this, there is a sense of optimism, not only that we must do this but that we can. This optimism is fueled in part by the growing recognition that we are increasing in our knowledge of what promotes student learning.

What Works in Enhancing Student Learning

Fundamental change requires transformational thinking. One of the main conceptual shifts that has been advocated is the need to move from a teaching to a learning paradigm. First put forward in Robert Barr and John Tagg's widely discussed 1995 article in *Change* magazine, this perspective was described in more detail in John Tagg's recent book *The Learning Paradigm College* (2003). This formulation of the issue resonates with much of the thinking about needing to put student learning at the center of our work. Putting learning first provides a lens through which we can view all of our policies, practices, and structures and helps define what is core and what is peripheral in our institutions. It points to the prevalent flaw of equating faculty effort with student learning and demands that we incorporate a growing body of new research on student learning into our practice. This conceptual shift is significant. The next step is to understand more clearly what promotes student learning and begin to incorporate that knowledge into our teaching practices.

The literature on student learning contains a number of common themes:

- People construct new knowledge and understandings based on what they already know and believe. Students' prior knowledge affects how they respond to teaching; if we ignore it, it hinders our teaching.
- Learners are not all the same. Our increasingly diverse students come to learning with a highly variable store of knowledge, experience, and competence and with diverse perspectives and preferred ways of learning.
- Key to learning is activity, time on task, and social interaction with others, the active use and testing of information and ideas, and the active practicing of skills in a meaningful context.
- Learning is best promoted by high expectations and clear learning outcomes, with frequent assessment of both students' starting

points and progress and timely feedback from more expert peers and teachers.

- Learning and understanding develop and are internalized over time, especially as learners engage in meaningful activities and reflect on what they know.
- Learning cannot be kept separate from identity development.
- Learning and understanding do not necessarily occur because one is taught.
- No one type of teaching works all the time. Particular methods follow from the specific types of learning needed to achieve the desired results in a given course.

This research paints a much more complicated picture of learning than we had in the past (National Research Council, 1999; Zull, 2002; Gardiner, 1994; Pascarella and Terenzini, 1991; Brown, Collins, and Duguid, 1988). It also shows us that the challenge of improving student learning is not simply about introducing teachers to a few new "techniques." The relationship between pedagogy and content is complicated, and many of our ideas and practices are unexamined and based on misconceptions. Understanding how people learn, what effective learning environments look like, how modern technologies might have an impact on learning, and how all of this shapes the instructional role is a great challenge that requires rethinking how we train and support our teachers and construct our learning environments.

Disseminating the Research on Student Learning and Promising Practices

Over the past twenty years, there have been a variety of efforts to disseminate the research on student learning and promote promising practices at both the national level and on individual campuses. The major higher education associations have provided consistent and focused leadership to the effort to improve undergraduate education. The American Association for Higher Education, the League for Innovation in the Community College, and the American Association of Community Colleges have promoted national discussions about service learning, instructional uses of technology, and learning outcomes, while the Association of American Colleges and Universities has led the national conversations about diversity, liberal learning, and general education. Many other professional associations have also been active in the national effort to improve both undergraduate education and student learning.

One of the most important conceptual leadership efforts came from Ernest Boyer, Gene Rice, and Lee Shulman and their work on the scholarship of teaching, which called for a broader definition of faculty work and scholarship, a more empirically grounded sense of good practice, and more robust ways to describe and evaluate teaching. Since the early 1990s, The Carnegie Foundation for the Advancement of Teaching and the American Association for Higher Education (AAHE) have worked together to promote the scholarship of teaching approach as a concrete way to redefine and raise the status of teaching. Hundreds of campuses have been involved in this effort, which has led to a broader notion of faculty roles and rewards on many of them (O'Meara and Rice, 2004; Pat Hutchings, personal communication with the author, October 2003).

The assessment movement has also been important in undergraduate education reform. As Peter Ewell points out, the assessment movement started in the mid-1980s on the heels of the significant national report *Involvement in Learning* (Ewell, 2002a). Almost from the outset, assessment work developed a dual focus on improvement and accountability. At the same time, assessment reforms have focused on the classroom, giving teachers important tools for enhancing their practice. Tom Angelo and Pat Cross encouraged teachers to experiment with classroom assessment approaches, or "CATs," as they came to be called. Together they wrote an eminently practical handbook that provides dozens of examples that teachers can use in their classrooms to shed light on their assumptions about teaching and learning (Angelo and Cross, 1993). Also in the "ask-them" tradition, Richard Light's work at Harvard demonstrated that we all have a lot to learn from asking our students about their learning (Light, 1990, 2001).

Although many reform approaches have been cross-disciplinary, some have focused on the academic disciplines. Teaching journals have appeared in a number of disciplines, as have projects to encourage new pedagogical approaches. The AAHE was particularly important in collaborating with the disciplines on its twenty-three monographs on service learning in the disciplines, its work on teaching portfolios, and its work on the scholarship of teaching. Meanwhile, the Association of American Colleges reexamined study in the major, finding a widespread problem in terms of coherence (Association of American Colleges, 1990).

The National Science Foundation has given significant support to innovative approaches in the sciences, funding a variety of reforms in mathematics, the sciences, and engineering. Many of these efforts were designed to reverse the high attrition rates in these disciplines and address the shortage of graduates in mathematics, science, and engineering. Inquiry-based

approaches to learning and an emphasis on undergraduate research are important ingredients in most of these reforms, as are efforts to change the chilly climate of many science classrooms and build a greater sense of community. Developing peer support systems among students has often been successful in building community and encouraging persistence in the sciences (Seymour and Hewitt, 1997).

Meanwhile, on individual campuses, one of the most promising trends has been the widespread establishment of teaching and learning centers and faculty development programs, providing a dissemination system for new information about student learning and a support system for growing numbers of new faculty members.

Old Structures and Practices

In spite of the calls for reform, exciting new research about student learning, and robust national dissemination efforts, much about higher education has changed but little in the last hundred years. Our academic structure remains a curriculum of social efficiency divided into three- or four-credit courses and fifty-minute classes. Grades, seat time, and credit hours remain the basic currency of higher education, even though they are increasingly recognized as inadequate measures of student learning. Although focusing on student learning outcomes is generally conceived as the best new alternative to credit hours and seat time, few institutions have adopted this approach in a deep and meaningful way (Ewell, 2002a). Those that have moved to student learning outcomes often find themselves caught between the new approach and perverse traditional policies, especially as they relate to funding and student financial aid.

Although it is true that large freshman lecture courses subsidize small upper-division courses, the attrition rate in that crucial first year makes this a dubious practice. Following the familiar pattern in higher education, many new reform efforts are add-on's and promising projects rather than true reforms. In fact, the emerging alternative practices (such as tutorials, seminars, learning portfolios, and so forth) are often viewed as labor-intensive and costly and face serious challenges in scaling up to reach large numbers of students.

Discipline-based academic departments continue as the mainstay of most college and university organizational structures. And although they have been important in delivering discipline-based courses, they pose a serious challenge to many functions and programs that are more institutionwide and cross-cutting, such as general education and interdisciplinary education, often creating role conflicts for faculty interested in these

broader forms of teaching. As a result, general education programs often face staffing challenges because the faculty's primary loyalty is to their academic disciplines and their department.

Faculty culture remains rooted in a long tradition of autonomy and individualism. At research universities in particular, the faculty are increasingly specialized and national or international in their affiliations. Developing a sense of institutional community and overall faculty responsibility for it is a challenge, especially in larger institutions. According to William H. Sullivan in *The University as Citizen: Institutional Identity and Social Responsibility,* many faculty members have retreated to what he calls *instrumental individualism,* avoiding the more difficult and important alternative of coming to grips with a new institutional purpose appropriate to our times (Sullivan, n.d.). As a result, many institutions have found it very difficult to have meaningful discussions about the overall curriculum.

Peter Ewell has said that we are caught in a number of paradoxes, which he describes as "key dialectics"—seemingly opposing positions that must be accommodated (Ewell, 2002c). He suggests that the only way out of the apparent contradictions is a conceptual shift and new institutional structures and ways of doing things. Even in teaching and learning, for example, Ewell points out that we are faced with the paradox of increasing individualization and fragmentation of the curriculum *and* a need for coherence. As students become increasingly mobile, attending two, three, or four colleges, it is not easy to imagine a simple curricular fix to the coherence issue because the solution is beyond the purview of a single institution. In the organizational domain, Ewell says that we face the apparent contradiction that our existing modular forms of organization (academic departments) are not effective in certain areas—like general education, interdisciplinary education, and learning communities—that require more cross-cutting organizational structures. Here the challenge is to create meaningful hybrid structures that do not lead to turf wars and marginalization.

Promoting Change in a Time of Limited Resources

As the epigraph that began this chapter pointed out, higher education is now facing "serious tests of its resourcefulness with the significant shifts in the social landscape" (Sullivan, n.d., p. 1). Providing meaningful access to higher education for an increasing number of students is a clear priority, but this commitment comes on the heels of the recognition that resources for higher education will be constrained in the future, making

"business as usual" impossible (Guskin, 1994a, 1994b, 1996; Guskin and Marcy, 2003; Massy and Wilger, 1996; Massy, 2003).

In comparison with other industrialized nations, the United States spends more per student on higher education and the gap widened between 1995 and 1998 (Sherman, 2003), but most observers contend that recent funding growth patterns for public higher education are not sustainable in the face of tax resistance and increased competition for resources. "In 1997, the Council on Aid to Education . . . analyzed ongoing trends in educational support and expenditures, and determined that if all sources of support continued to follow current trends, and higher education continued to model its expenditure pattern, higher education would face a funding shortfall of about $38 billion—nearly 25 percent of its needs—by 2015" (Council on Aid to Education, 1997, p. 3).

Already there are signs of increasing inequality in access to higher education (Educational Testing Service, 1998). Reports with such dramatic titles as *Losing Ground* (2002c) and *College Affordability in Jeopardy* (2002a), both from the National Center for Public Policy and Higher Education, and *Empty Promises* (2002) from the Advisory Committee on Student Financial Assistance, demonstrate that access is increasingly tied to income and that the American Dream is falling out of the reach of too many. Rather than face the challenge of setting new directions in the shifting landscape, many colleges and universities are facing the dilemma of containing costs and cutting budgets by a combination of hunkering down—hoping for a better day—and nibbling away at the budget base through across-the-board cuts, a strategy that will not work in the long run (Guskin and Marcy, 2003).

The Project on the Future of Higher Education is one effort aimed at exploring the future of higher education in the context of this increasing pressure on resources (see www.antioch.edu/pfhe). The project brought together sixteen leaders in higher education to explore future scenarios and suggest ways to enhance student learning, maintain quality in faculty work life, and cut costs simultaneously. They see using technology, creating new forms of instructional leadership, taking better advantage of approaches known to enhance student learning, and putting a sharper focus on student learning outcomes as key elements (Guskin and Marcy, 2001, 2003; Ewell, 2002c).

The kind of reforms that the Project on the Future of Higher Education and other national reports are recommending cannot come easily, in part because a variety of questionable assumptions shape our views of what is possible and desirable. As one higher education analyst, Ann Ferren, notes, we assume, for example, that quality means more expenditures per student

and that class size is a primary measure of quality. There are many other questionable assumptions, such as the following: The more specialized courses a department offers, the better it is. Every faculty member ought to have the opportunity to teach one or more specialties. Enrollments are a measure of a department's success. Courses should be offered to satisfy all available markets and emerging interests (Ferren, 1997, p. 549).

After reviewing more than twenty-six hundred books, articles, and other writings about student learning, Patrick Terenzini and Ernest Pascarella (1994) reached similar conclusions about myths that get in the way of reform. Some of the widespread myths they cite are the following:

- Educational quality is a function of the institution's wealth, resources, and selectivity.
- The lecture is a proven, effective way of teaching undergraduate students.
- The only significant influences on student learning come through the faculty and in the classroom.
- Students' academic and nonacademic experiences are separate and unrelated influences on learning.

Questionable assumptions and myths close many doors to education reform, blinding us to resources and new ways of thinking about roles and responsibilities. They can also misdirect us toward simplistic solutions. Many reform efforts are narrowly conceived around a single factor, such as altering the lecture or reducing class size, without taking all the other factors into account that would make the effort more far-reaching and successful.

The Course Redesign Project

One significant recent project challenged some of these assumptions. It worked from the premise that we can improve student learning while simultaneously reducing the cost of instruction if technology plays an important role (Twigg, 2003). Supported by The Pew Charitable Trusts, the Course Redesign Project involved thirty colleges and universities that redesigned their large introductory-level courses, often called *gateway courses,* which enroll the great majority of students across the nation. The courses include algebra, American government, introductory psychology, and introductory chemistry (Twigg, 2003; see also www.center.rpi.edu/Pewgrant).

As project director Carol Twigg points out, most of the efforts involved substantial structural change: "Some eliminate some lectures; others

eliminate all lectures. The premise is that faculty do not need to spend as much time presenting information. Lectures are replaced with a variety of learning resources, all of which involve more active learning or more individualized assistance. . . . The primary goal is to shift students from a passive, note-taking role to an active learning orientation. . . . As one math professor puts it, 'Students learn math by doing math, not by listening to someone talk about math'" (Twigg, n.d.).

This project demonstrated comprehensive innovation driven by learner-centered thinking that also reached a large number of students. It required a detailed examination of the real costs of instruction, something that has often been recommended but seldom implemented. As Twigg (n.d., p. 31) points out:

> Doing a careful analysis of the instructional tasks associated with the traditional course format allows one to gain an understanding of those that can be shifted from personnel to technology-based materials and those that cannot. After determining the pedagogical principles that need to be employed in the redesign and the kinds of instructional personnel who are essential to the specific tasks, one can experiment with a variety of designs and calculate their associated costs. Most academic problems can be addressed in a variety of ways; there is no one perfect redesign strategy. The principles are generic, however. Cost savings result from shifting the time spent by the instructional personnel to the technology.

A more learning-centered paradigm encourages us to make the crucial move to thinking about ways to enhance student learning that get beyond simply equating student learning with faculty time in the classroom. The Course Redesign Project demonstrates one way to rethink how large introductory classes can be taught by using technology, altering faculty time in the classroom, and creating new ways for students to work together. The project was successful in cutting costs, increasing student learning, and improving faculty satisfaction. Like learning communities, this project took structure, pedagogy, and roles and relationships as variables that could be altered.

Learning Communities and Undergraduate Education Reform

In this climate of rising challenges, growing calls for reform, broad-scale experimentation, and strong research on learning, learning communities have emerged as a compelling strategy to use in restructuring undergraduate education. Carefully designed and implemented learning

communities can simultaneously address the issues of enhancing student learning and building the quality of our academic communities in a cost-effective manner. Because they can provide a holistic and coherent approach to reform, learning communities offer a potentially more sustainable approach than many more narrowly based reform initiatives.

A Definition

Although learning communities have a long and rich history, which is discussed in Chapter Two, the contemporary concept and implementation started to build into a national movement in the mid-1980s with substantial expansion in the mid-1990s. Now they have become so widespread that the term *learning community* is used to apply to many different educational strategies. More clearly defining learning communities and delineating their key features can help us understand these programs' intentions and also provide a standard against which to judge what they are attempting.

In this text, we use the term *learning communities* to refer to a variety of curricular approaches that intentionally link or cluster two or more courses, often around an interdisciplinary theme or problem, and enroll a common cohort of students. They represent an intentional restructuring of students' time, credit, and learning experiences to build community, enhance learning, and foster connections among students, faculty, and disciplines. At their best, learning communities practice pedagogies of active engagement and reflection. On residential campuses, many learning communities are also living-learning communities, restructuring the residential environment to build community and integrate academic work with out-of-class experiences.

The Social Construction of Knowledge

As reform efforts have evolved over the past eighty years, they carry a set of assumptions, summarized in Exhibit 1.2, about the nature of knowledge, student learning, the organization of the curriculum, and the role of the faculty. These assumptions are strongly associated with a view known as the *social construction of knowledge*. Citing the work of Kenneth Bruffee, K. Patricia Cross defines this view as follows: "We construct and maintain knowledge . . . by negotiating with one another in communities of knowledgeable peers. . . . Knowledge is actively built by learners as they shape and build mental frameworks to make sense of their environments. . . . Knowledge is not something that is transferred in an authoritarian structure from teacher to students but rather as something

Exhibit 1.2. Assumptions Underlying Traditional Approaches to Education and Recent Reform Efforts

Traditional Assumptions About Higher Education	Assumptions Underlying Recent Reform Efforts
Discovery of knowledge is more important than practical applications.	Experiential learning and practice serve to deepen knowledge and understanding.
Meaning is seen as something that is individually constructed.	Meaning is seen as socially constructed, through collaborative learning.
Stresses objective nature of knowledge, rationalizes value of knowledge.	Admits subjective and value-laden nature of knowledge.
Emphasizes "procedural" and "separate" knowing.	Encourages connected, relational, and constructed knowing.
Student learning and development are seen as something occurring primarily in the classroom.	Student learning and development occur in and outside the classroom.
Focus more on the nature of the curriculum than on who is in the classroom.	Increasing focus is on who is in the classroom.
Curriculum is delivered through discrete courses, emphasizing seat time and credit hours.	Delivery system is organized around larger packages of time and credit; alternative ways of validating learning.
Curriculum is built around disciplines.	Curriculum is built around interdisciplinary foci, often around themes or problems or questions.
Emphasis is on didactic instruction, rather than connecting theory and practice.	Experiential learning and practice are used to deepen knowledge and understanding.
Teacher is seen as authoritative deliverer of content.	Teacher is seen as designer and manager of learning processes.
Reflection is considered an optional afterthought.	Reflection is seen as central to learning and meaning making.

that teachers and students work interdependently to develop. Thus it fosters active learning over passive learning, cooperation over competition, and community over isolation" (Cross, 1998, p. 5).

There is now a fairly strong consensus on these views of knowledge and student learning among most learning and student development theorists,

cognitive scientists, and leaders and practitioners of reform efforts at both the K–12 and postsecondary levels. These perspectives have profound implications for how we think about curriculum, teaching practices, student assessment, and co-curricular activity, and especially for how we prepare faculty members for the professoriate. Although these assumptions are intriguing and hold great promise for strengthening student engagement and learning, they are also problematic because most faculty members were not taught in these ways and most have not been exposed to these theories and their implications for classroom practice.

Nonetheless, learning communities provide a significant arena for putting these theories into practice. The changed structure of learning communities brings together courses and disciplines, learners and teachers to provide a larger and more holistic platform for realizing the more recent assumptions described in Exhibit 1.2. The learning community structure is itself infinitely adaptable to different kinds of curricular and co-curricular settings. What has made it attractive and widespread is this adaptability; educators can shape and reshape the strategy around specific curricular or student needs. Central to learning community design and implementation are five core practices: community, integration, active learning, diversity, and reflection and assessment. Although these core practices, which are described in detail in Chapter Four, are important in any educational setting, they can be more fully developed in learning communities simply because learning communities provide more time and space by restructuring the curriculum. In this changed structure, new roles and relationships also become possible. Many different people can come together to teach in learning communities—faculty, student affairs professionals, librarians, graduate teaching assistants, student peer mentors. Learning community programs are often a team effort, setting up the conditions for interdependence and learning on the part of all the people who teach in them.

Learning Communities as a Reform Effort

At their best, learning communities embody an analysis of what is needed to reform higher education (curricular restructuring), a theory of learning (based on current research), a commitment to certain educational goals (putting student learning at the center of our work), and a commitment to the importance of community (a necessary condition for learning). They rest on the belief that we can improve student academic success if we design a more appropriate educational structure for addressing important intellectual and social issues, recognize learning as a shared responsibility,

and encourage active learning and community building. They create venues for synergistic activity to occur among people and ideas.

The learning community approach offers a unique opportunity to be resourceful in a time of limited resources. Unlike many approaches to education reform, learning communities are not a simple response to one set of issues. They represent a holistic response, what Peter Senge has called a *high leverage point*. Because of this we believe learning communities have enormous potential in helping to achieve the larger aims of undergraduate education reform. They can be a convergence zone for many related reforms. At the same time, putting learning communities in place requires not only reforming the curriculum but also reforming many of our working relationships and the organizational systems on our campuses. This work of reform, of changing complex systems, is difficult because we tend to see the world and our education system in terms of separate, unrelated forces (Senge, 1990). We tend to underinvest in the kinds of ongoing dialogue, comprehensive planning, and staff development that are needed to bring about deep and enduring change (Ewell, 1997). As a result, educational reforms are usually additive rather than transformational, having little impact on our core values, structures, and practices. Some learning communities—though by no means most—seem to be reaching beyond this historic pattern of educational tinkering. In the next chapter we explore the history of learning communities and the lessons we can draw from this history. Time will tell whether learning communities will be remembered as a large but ultimately minimal reform movement or as an explosion of activity and energy whose leaders recognized their potential, harnessed their energy, and brought about the revolution they were able to create.