III
Restructuring
through Learning Communities

Learning communities have been developed in various ways and around a variety of different purposes. Many begin as ad hoc initiatives inspired by innovative faculty. Some efforts focus on specific groups of students (ranging from honors students to students from underrepresented populations). Some focus on specific courses or curricular hot spots (e.g., courses with high attrition rates, platform courses for entry into professional or technical programs, or key transition courses for developmental students or second-language speakers), or a particular part of the curriculum that is troublesome (such as the first year of college or developmental education), general education, or specific fields with high drop-out rates (such as science, engineering, or business).

Arenas that have proven especially robust for situating learning communities include the following:

First Year Initiatives*. Hundreds of campuses have developed initiatives to support students' first term in college, a significant transition point for students and a time when academic expectations are established. Significant numbers of students are lost in the first year of college, especially in non-selective institutions that educate the overwhelming majority of all students. High attrition rates are an economic concern as well, since one year of college does not generate a significant return on the investment, especially compared with earnings accruing from a four-year degree. The emphasis on the first year is also often tied to concerns about successfully educating an increasingly diverse student body. Substantial inequalities in college retention and graduation rates among students from different cultural groups and socio-economic backgrounds have led to demands for better performance as the academy has become more diverse (Kazis, Hoffman, and Vargas 2004). Many states' accountability measures emphasize first-year retention and graduation rates because of these factors, and both freshman seminars and learning communities have become quite widespread as a result.

Developmental education*. Developmental education has been another robust arena of learning community development because it affects a very large number of students and is an area of dramatic underperformance. Forty percent of students in four-year colleges and more than 50 percent of community college students take remedial courses, and in many institutions the numbers are much higher (Roueche and Roueche 1999, 5. A recent study by John and Suzanne Roueche indicates that "the majority of current remediation efforts in higher education are perceived as inefficient and ineffective" (Roueche and Roueche 1999, 7). Cliff Adelman's longitudinal study of 1980–93 sheds further light on what works in developmental education. His research indicated that students who failed remedial courses were rarely successful, and repeating courses had little impact on their success (Adelman 1999, 6). This finding led to federal financial aid restrictions that required redesigning these programs in many colleges. Various studies of student enrollment and achievement patterns in remedial education courses also indicated that successful remedial education programs are

Hundreds of campuses have developed initiatives to support students' first term in college, a significant transition point for students and a time when academic expectations are established.

Prominent learning community programs at Grossmont Community College, La Guardia Community College, and Kingsborough Community College present compelling evidence of the effectiveness of this approach to developmental education in terms of student pass rates.

highly cost effective: as long as students made steady progress in these courses, they had a very good chance of succeeding in college (McCabe 2000; Adelman 1999; Roueche and Roueche 1999; Morante 1982, 1983). It has also become clear that effective programs can be described in terms of "best practices" such as assessment and placement, highly coordinated programs, integrated counseling components, tutoring, integration of classroom and laboratory activities, supplemental instruction, and staff and faculty development (Roueche and Roueche 1999; McCabe 2000). Learning communities are often cited as a "best practice" and a means of integrating these other best practices and addressing these widespread patterns of failure. (Tinto 1998; Malnarich with others 2003; Smith, MacGregor, Matthews, and Gabelnick 2004). Prominent learning community programs at Grossmont Community College, La Guardia Community College, and Kingsborough Community College present compelling evidence of the effectiveness of this approach to developmental education in terms of student pass rates. While few of the other learning community efforts in developmental education have been scaled up to reach large numbers of students, this arena is just waiting for further development.

General Education. General education is an area of the curriculum long beset by intractable issues of unclear purpose, student and faculty disinterest, low institutional commitment, and perennial difficulties navigating the change process itself. In recent years, more and more expectations and responsibilities have been placed on general education and the general education agenda has become larger, more complex, and more fragmented (Smith, MacGregor, Matthews, and Gabelnick 2004). A study of chief academic officers in 2000 concluded that the vast majority of institutions reported change efforts in general education, but little progress in developing shared educational values and "a good deal of slippage in connecting learning goals to curricula and courses" (Ratcliff et al. 2001, 18). In the absence of meaningful assessment information, most campuses engaged in what Jim Ratcliff and his colleagues called "churning," the continuous re-invention of general education plans without clear purpose and with no evidence of their impact on student learning (Ratcliff et al. 2001, 11). Furthermore, the typical pattern of reform, by adding random courses in diversity, information technology, or other subjects—the "add-a-course" approach—is no longer viable. These approaches add cost and take up space in the curriculum that is no longer available with the growth of academic majors and increasing pressure to ensure that students can complete a degree in four years. Looking at the overall meaning of a college degree, many observers also argue that more synergistic approaches need to be found to bring general education goals and skills and study-in-the-major together to improve student learning (AAC 1990a,b., AACU 2002). At the same time, most institutions continue to rely upon the distribution system for general education, a system that is less efficient and less effective than more focused general education programs with clearer goals. As one answer, Portland State University is an example of a university that has extensively revised and shortened its general education program around learning communities to promote greater efficiency (in overall credit hours) and effectiveness in terms of student learning (Reardon and Ramaley 1997). Wagner College and Skagit Valley College are two other outstanding examples.

The Major. Study-in-the-major has also come under increasing scrutiny in recent years. A 1990 Association for American Colleges' study of twelve disciplines concluded that many majors lack clear goals and coherence. Furthermore they saw little concern for building students' competence in making connections through their course of study (AAC 1990 a,b). The sciences have received the most recent and consistent attention. Numerous advocates of reform in mathematics, science, and engineering point to the large attrition rates in these fields, especially when more graduates are needed in some of these fields and few students of color graduate in STEM (science, technology, engineering, and mathematics). They also point to a larger issue of widespread mathematical and scientific illiteracy and the need for all undergraduates to become more scientifically literate (National Research Council 1999; Seymour and Hewitt 1997; Project Kaleidoscope 2002). The problem of "wastage" through high attrition rates, even among high ability students, is not limited to students of color and women, as many faculty in these disciplines suppose, but is true of white male students as well (Seymour and Hewitt 1997). The difficulty for faculty, according to Seymour and Hewitt, is that of redefining this issue as a "problem" rather than an "appropriate and natural consequence of a pedagogy that serves established, and largely unchallenged, student selection objectives" (391). These authors conclude that the problems of attrition stem from the structure of the educational experience and the culture of the discipline rather than the inadequacies of students or the appeal of other majors (392). At a number of institutions, learning communities have been developed to tackle these issues. The CircLES learning community program at the University of Texas at El Paso is an especially notable effort to attract and to graduate students from underrepresented populations in math, science, technology, and engineering. Many other smaller scale learning community programs emphasize critical gateway courses in mathematics, as well as introductory courses in the sciences.

Living-learning Communities. Many institutions recognize that student learning in college is much more than the relationship between students and faculty members in the classroom. In fact, student development is greatly influenced by the residential experience, participation in out-of-class activities, and relationships with peers. There is also increasing recognition that student learning can be enhanced through service-learning, internships, community-based research projects, study abroad, and other experiential educational opportunities. Learning communities are a major platform for building a more holistic view of student development and taking advantage of multiple opportunities for learning. On dozens and dozens of campuses this has led to imaginative collaborations between academic and students affairs and to the creation of numerous living-learning community programs. At St. Lawrence University, for example, students live together in theme-based living-learning communities that have significantly enhanced the academic culture and climate of the institution. Many large institutions, such as the University of Colorado and the University of Wisconsin, have made a commitment to providing a variety of small-scale, residential living-learning opportunities. Campus reports indicate that the investment in these endeavors has paid off in multiple ways, including

Learning communities are a major platform for building a more holistic view of student development and taking advantage of multiple opportunities for learning.

higher occupancy rates, improved campus climate, fewer incident reports in the dorms, and increased student retention (Taylor with Moore, MacGregor, and Lindblad 2003).

The Choice of a Learning Community Model

The structure of different learning community models has significant implications in terms of cost, faculty collaboration, and potential for using key practices in promoting student learning such as community-building, active learning, and curricular integration.

The choice of a learning community framework and the integration of pedagogical practices that promote learning are important considerations in optimizing learning in a climate of limited resources. While simply block-registering students in a set of courses may be an efficiency move, learning communities that restructure the environment around active learning and other core practices are more likely to enhance student learning. A wide range of learning community models can be adapted to different institutional environments. The following factors are important selection criteria for selecting a model.

- goals for the initiative for students, faculty, the curriculum, and the institution
- existing nests of interest and opportunity including areas of faculty strength, the college's distinctive mission and location, and fit with other initiatives already underway
- institutional willingness, flexibility, and ability to support change

The structure of different learning community models has significant implications in terms of cost, faculty collaboration, and potential for using key practices in promoting student learning such as community-building, active learning, and curricular integration. Institutions planning learning communities need to devote careful attention to finding the appropriate location and structure for learning communities to have maximum benefit for student learning and the right balance of cost and benefits. The next section describes various sustainable learning community models and the financial implications of each. Many institutions use several of these approaches for different purposes and groups of students, and there have been dozens and dozens of creative adaptations of these general frameworks.

Structural Models of Learning Communities

Learning Communities within Autonomous Classes that are Unmodified: Figure 2 describes a common learning community framework built around existing courses, usually including one or two large lecture courses, and one smaller course, often English Composition. The learning community is often given a name that explains the course configuration and helps students choose among several learning community offerings. This name may reveal the theme of the learning community (e.g., "The Human Condition"), or it may identify which majors the program is designed to serve (e.g., "Pre-Law" or "Pre-Health"). In this model, the integrative seminar (which may carry 0 to 4 credits) carries the burden of curricular integration, active learning, and community-building. The cost of the integrated seminar is small and depends on who the teachers are.

Often an undergraduate peer advisor leads the seminar, providing a student leadership opportunity for the peer advisor as well. This is a highly cost-effective approach because the courses are not changed, and no faculty development is necessary. Nonetheless, this learning community is different from simply co-registering students because of the integrative seminar. These modest learning communities do promote greater effectiveness in terms of student satisfaction, student achievement, and student retention. As a result, they have become commonplace in research universities and large comprehensive institutions.

There are many different examples of learning communities that involve more collaboration among the teachers and the courses.

Figure 2. Sustainable Learning Community Curriculum Structures— Communities within Autonomous Classes
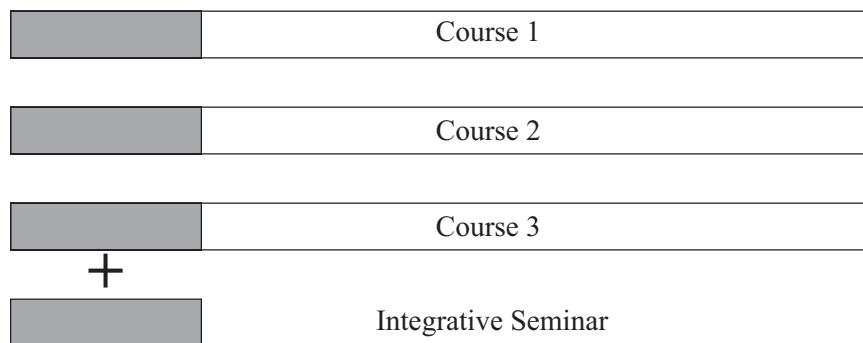
	Course 1

	Course 2

	Course 3

+

	Integrative Seminar

The shaded area represents the learning community students; the unshaded area represents other students taking each individual class. Courses are offered as usual; faculty are not asked to collaborate, so course-loading does not change.

Learning Communities with Linked or Clustered Classes: There are many different examples of learning communities that involve more collaboration among the teachers and the courses. Figure 3 describes several sustainable models in which faculty members are collaborating with one another to build connections among the classes in paired or linked courses. In Figure 3a, a pure cohort model, the students in the two courses are the same, and instructors collaborate extensively although the courses are not team-taught. The General Psychology course enrollment limit, usually much higher than the English Composition course limit, is lowered to fit the size of the English Composition course. Efficiencies are gained by not using team-teaching, thereby allowing the instructors to be assigned to other courses. At the same time, collaborative planning and the pure cohort structure of the learning community allow curricular integration and community-building.

Figure 3b is a less costly approach since the General Psychology course is left at its usual higher enrollment level. As a result, however, the learning community cohort in the Psychology class is a subset of a larger class and less curricular integration is possible. The English course becomes the sole site for community-building and integration, often through writing assignments that draw upon the content of the Psychology course.

Figure 3. Linked or Paired Courses
Example 3a. Linked class
"Psychologically Speaking: Science vs. Psychobabble"

[shaded box]	English Composition
+	
[shaded box]	General Psychology
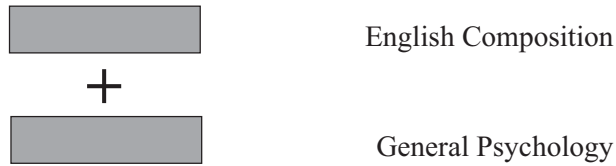
This is an example of a two-course learning community that is a pure cohort of students. The two courses are team-planned but not team-taught.

Figure 3b. Small Class Linked to a Larger One
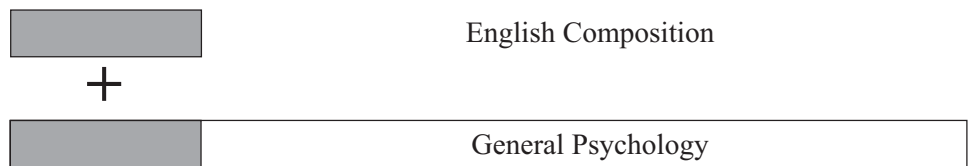
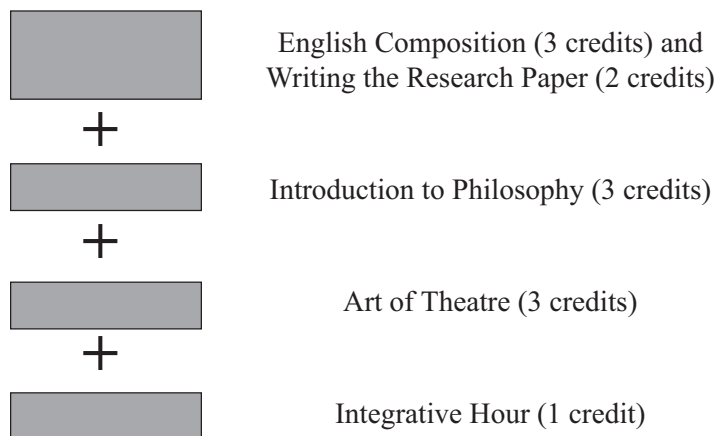|	
[shaded box]	English Composition
+	
[shaded box][unshaded box]	General Psychology

The shaded area represents the learning community students; the unshaded area represents other students taking only the Psychology class.

Figure 4 describes yet another approach, a cluster of courses in which there is extensive collaboration in planning the learning community and team-teaching of the integrative hour. As with many of these models, the locus and level of integration between the courses can vary. It might be achieved through a common syllabus for all the courses, integrative assignments and projects, co-curricular activities (field trips, potlucks, community-based projects), common goals and pedagogical approaches, and/or simply some common themes and topics.

Figure 4. Learning Cluster
"Identity, Performance and Poetic Justice"

[shaded box]	English Composition (3 credits) and Writing the Research Paper (2 credits)
+	
[shaded box]	Introduction to Philosophy (3 credits)
+	
[shaded box]	Art of Theatre (3 credits)
+	
[shaded box]	Integrative Hour (1 credit)

A pure cohort, the students are taking all these classes together. The cluster is team-planned with only the integrative hour team-taught.

Learning Communities and Fiscal Reality: NATIONAL LEARNING COMMUNITIES PROJECT
Learning in a Time of Restricted Resources

16

Figure 5 describes a complex learning community cluster involving a large-enrollment course in which a subset of students are enrolled in "dedicated sections" (their term for courses that only involve the learning community students). Connections and community-building happen in the dedicated classes. This model enjoys the economies of large courses along with the benefits of smaller communities of students in the dedicated English and Philosophy courses. If the same instructor teaches both of the English 110 sections, the instructor also has a more coherent workload. This design can allow substantial integration if there is extensive planning among the faculty members, but it is not a team-taught model.

These examples demonstrate that team-taught learning community programs can be comparable to stand-alone courses in terms of the student faculty ratio if enrollment levels are set at these ratios.

Figure 5.
Course clusters involving large-enrollment classes.

English 110 20 students "Dedicated" section	English 110 20 students "Dedicated" section
Philosophy 101 40 students "Dedicated" section	
Sociology 120 180 students, 40 of which are in the "Dedicated" section of the LC program	

Team Taught Learning Communities: Figures 6a and 6b describe several team-taught learning communities. One common misconception is that team-taught programs are always more costly. These examples demonstrate that team-taught learning community programs can be comparable to stand-alone courses in terms of the student faculty ratio if enrollment levels are set at these ratios. Figure 6a, "Daily Planet," is a team-taught program involving the equivalent of two courses at a school with four-credit courses. This eight-credit learning community program would ideally enroll forty to fifty students and count for two courses per teacher, thereby generating approximately the same number of student credits per instructor as two conventional courses.

Similarly, Figure 6b, "Political Ecology," describes a team-taught learning community with three instructors teaching the equivalent of three courses to sixty to seventy-five students. In both of these examples, the learning community enrollment levels operate at a 20:1 or 25:1 student-faculty ratio. Many programs are built around distribution requirements to ensure a sufficient enrollment pool for the offering. While Figures 6a and 6b depict the course equivalencies that the student transcript would include and the course-load equivalencies for the faculty, the learning community is actually designed and taught as a seamless, integrated program, usually around a theme, a series of questions, or a problem.

Figure 6a.
Team-taught Learning Communities

	"Daily Planet"	
9 a.m.	Journalism	Biology
10 a.m.	Biology	Journalism

Figure 6b.
Team-taught Learning Communities

	"Political Ecology"		
9 a.m.	Political Csience	English	Environmental Science
10 a.m.	Environmental Science	Political Science	English
11 a.m.	English	Environmental Science	Political Science

With hundreds of learning communities now in place, it is clear that effective programs can be designed in many different ways.

As the preceding examples demonstrate, learning communities vary in curricular structure, degree of course integration, enrollment level, and the roles and expectations of the instructional team. Some models radically alter the existing curriculum, while others leave existing courses largely unchanged. Some of the models involve coordination between faculty and student affairs; others do not. Not surprisingly, the most pervasive models—variations on linked or clustered courses that are not team-taught—are those that work most easily with existing organizational structures and values. Especially if implemented on a large scale, the more complicated models challenge the existing values and decision-making processes and require greater investment in faculty development and faculty planning time. Since organizational structures work to preserve the status quo, complicated models require the invention of new processes to be sustainable in the long run.

The cost implications of different models vary and depend largely on the cost of the instructor, the usual teaching load at an institution, and the enrollment limits. If part-time faculty, student affairs professionals, undergraduate peer advisors, or graduate teaching assistants are employed, the cost of the instructor is lower than it is with full-time faculty. It is possible, of course, to construct highly elaborate programs that cost more than conventional courses, especially if enrollment expectations are modest. With hundreds of learning communities now in place, it is clear that effective programs can be designed in many different ways. While we believe all models should be more than simple block registration and include some sites for building community, active learning, and curricular integration, these core practices in terms of student learning can be developed and accomplished in different ways.

"Fitness for purpose" is an important concept when considering different learning community goals and models in a time of limited resources. The best design is one that achieves your goals at least cost. As William Massy points out, "Spending more may improve overall design quality, but the fitness for purpose

principle says that more is not always better. In fact, the best designs are those that produce outstanding value for money instead of pouring on cost to achieve quality" (Massy 2003, 162). If, for example, the main purpose of a car is to provide reliable transportation, there is no need to buy a Lexus when a Saturn or a Chevrolet will do. In many educational interventions the calculus of choices is not this simple, but the same principle applies. In considering what constitutes "quality" we are often trapped in preconceptions about optimal class size, who can be a teacher, role of the instructor, and the necessary levels of support for programs. While we to need to recognize that efforts to increase quality and learning must pay attention to important (and frequently overlooked) costs of faculty planning time, faculty development and assessment, there are many different ways to accomplish the goal of enhancing student learning. In times of limited resources it is especially important to compare alternatives. The fundamental point is, however, that institutions need to have clear goals and decide which learning community models best achieve their goals.

While we to need to recognize that efforts to increase quality and learning must pay attention to important (and frequently overlooked) costs of faculty planning time, faculty development and assessment, there are many different ways to accomplish the goal of enhancing student learning.