Learning Communities and the Academic Library

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Living on borders and in margins, keeping intact one's shifting and multiple identity and integrity, is like trying to swim in a new element, an "alien" element. There is an exhilaration in being a participant in the future evolution of mankind being 'worked' on. I have the sense that certain "faculties"—not just in me but in every border resident . . . are being activated, awakened. Strange, huh? And yet, the "alien" element has become familiar—never comfortable . . . No, not comfortable but home.

Gloria Anzaldua, Borderlands/La Frontera

Anzaldua speaks from an ethnically, linguistically, sexually, and aesthetically mixed world based in her roots along the Texas/Mexico border where she has always been forced by circumstance to confront and cross many types of barriers. In the end, however, she suggests that NONE of us can sustain life in a comfortable silo of cultural, class, or disciplinary isolation. While her circumstances may seem remote from middle-class academia, Anzaldua manages to integrate academic discourse with street language and folk traditions. This is intellectual diversity, a new kind of fluency necessary in a world that finds that truth and knowledge are discovered and even created within diverse communities. The struggle to practice and become familiar with radically unsettled definitions of learning within democratically constructed communities is at the core of the learning community movement. Within this effort, there is both room and desperate need for collaborators who can bring inquiry-focused tools and practices to the work. Within academia, librarians, who have strong roots in student-centered learning, have much to gain and certainly a great deal to contribute to the learning community effort.

The learning community movement in higher education addresses widespread aspirations for higher education reform, reform intended to better reflect and respond to contemporary social contexts and our changing understanding of effective education and even the essential character of knowledge. This work considers the nature, history, and contemporary status of learning communities and, more specifically, considers related interests within academic librarianship and information literacy. The success, profundity, and longevity of reform depend upon an array of organizational and intellectual alliances, and the strong connection between the pedagogical and epistemological interests of the learning communities movement and the rapidly changing role of information literacy suggests that librarians and other learning community faculty can assist one another in supporting, exploring and expanding the potential of learning communities. Libraries and librarians can become springboards for addressing important issues in higher education, and the learning community effort is a burgeoning, as well as structurally and intellectually allied, movement for such work.

Learning Communities: Definitions and History

The term "learning community" is widely used and in many different ways. Nearly every college declares in its publications that it is a learning community. "Learning organizations" is another buzzword in education and in the corporate

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world. This broad, indeed international, literature points to a widely acknowledged feeling that "learning" and "community" are two pivotally unsettling issues for contemporary societies. The challenge of continuous learning now confronts everyone, and at a pace that is unprecedented. The challenge is to learn better and faster in a world characterized by an explosion of information that is wildly variable in quality and that quickly becomes obsolete. Peter Senge, a management guru and the person most associated with the term "learning organization," has said that "the ability to learn faster than your competitors may be the only sustainable competitive advantage . . ." He goes on to predict that "the organizations that will truly excel in the future will be the organizations that discover how to tap people's commitment and capacity to learn at all levels in an organization" (1990, 4). Collaboration is the byword; hierarchical organizations where a single person makes all the decisions are not the model of the future. Oddly enough, some of the recent literature also points out that experts are often the worst learners, because they have firmly established frames of reference that have served them well. Nimbleness, agility, and the ability to deal with unscripted, complex problems is an earmark of the contemporary world, and this is everyone's challenge.

If the contemporary world calls for new ways to think about learning, it also asks us to find new ways to foster community in a world characterized by diversity, mobility, multiplicity, and fragmentation. "Connectedness" and "community" are increasingly recognized as important features of effective learning environments, but it is also clear that community can no longer be taken for granted. It must be purposefully built. Only 16 percent of today's college students match the profile of the traditional college student who attends four years of full-time college directly upon completing high school. More than 50 percent of undergraduates now attend two or more institutions before they graduate, and an overwhelming majority are commuters. Many work and attend college part-time. Forty-one percent are over twenty-five, many with family responsibilities. The student body is more heterogeneous in all respects than ever before in our history, and a large number of students are the first in their family to attend college. Creating educational coherence and community amidst all this change has become a major challenge for higher education. Learning communities are one response. (Smith et al., 2004)

Although learning communities are often described as a form of pedagogy and are indeed associated with certain epistemological and pedagogical approaches, they are fundamentally a curriculum restructuring approach. Herein, learning communities are defined as a variety of ways to purposefully restructure the curriculum by co-enrolling students in two or more courses linked by a theme or question and including a pedagogy that allows more active learning and interaction between students. Learning communities are based upon a critique of the existing division of the curriculum into discipline-based three- or four-credit courses. In their most basic form, learning communities begin with coregistration or block scheduling, enabling students to take courses together, thereby building a sense of community. The courses are not random; rather they are connected by a theme that provides intellectual coherence and point of view.

The pedagogy in the best learning communities is based upon what we know about student learning and especially the importance of high expectations, challenging questions and issues, and active learning. Learning communities provide a broad platform for implementing inquiry-based approaches to learning such as writing across the curriculum, experiential learning, collaborative learning, and information fluency. Many of these inquiry-based learning approaches are difficult to implement within the confines of the fifty-minute class.

Traditional roles and relationships often change in learning communities as a result of the emphasis on collaboration, teamwork, and the social construction of knowledge. Shared knowledge, shared knowing, and shared responsibility are three key features of the most robust learning communities.

Like many reform efforts, the learning communities movement has numerous roots and branches and a long history of start-up, failure, and rebirth. The basic ideas that underlie learning communities are not, in fact, new at all. The roots lie in the 1920s with the establishment of a short-lived, two-year lower-division program called the "Experimental College" at the University of Wisconsin. (For detailed discussion of learning community history, see Meiklejohn 1932; Tussman 1997; Smith 2001; Smith et al., 2004). The Ex College, as it was known at the time, was founded by Alexander Meiklejohn who, along with John Dewey, was a prominent educational leader. Meiklejohn's work focused on higher education and Dewey's on K-12, but they had a common concern about the role of schools in a democratic society. Both thought America stood on a crucial threshold in the evolving American experiment with democracy. They argued that we needed an appropriate educational system to build democratic skills and knowledge, and they found the current system woefully lacking.

The contemporary learning community movement draws much of its pedagogical inspiration from John Dewey, but its insights about educational structure came from Meiklejohn, who invented the term "learning community" and the basic rationale. Both educational philosophers believed that form must follow function and that every aspect of the student's college life could build the habits of mind that support citizenship and the ability to work in community.

Meiklejohn's curriculum had two central motives: the first was a common curriculum based upon primary texts relating to democracy, and the second was an explicit concern to develop students' intellectual abilities and independence. In the 1927 college catalog, students were challenged to join a learning community that would go beyond the present educational system, which, Meiklejohn argued, encouraged docility and indifference.

It is sobering to realize that the current educational delivery system was developed nearly 100 years ago and has changed very little. At that time the old unitary curriculum lost its hold and the elective system became popular, resulting in what many thought was a willy-nilly and incoherent curriculum. Concurrently, research-focused, specialized academic departments gained ascendancy. Carnegie units, credit hours, and the discipline-based course came to dominate higher education, making the education system more standardized, efficient, and transportable.

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Meiklejohn thought the emerging structure of the research university was antithetical to the task of preparing students for democratic citizenship, a goal integral to the very notion of public education. He saw the division of the curriculum into smaller and smaller units of credit and increasing specialization as critical structural issues that would drive relationships between students and faculty, not to mention the content of the curriculum. He predicted that narrow departments would make it difficult to raise complicated interdisciplinary issues and that the fragmented nature of the curriculum would frustrate teachers who wanted to create a sense of deep engagement and community. Meiklejohn thought the university would eventually kill the college and that general education would become "no one's business." Many would agree that his predictions have come to pass.

Meiklejohn's solution was an interdisciplinary, team-taught, two-year lower-division curriculum focusing on democracy. The curriculum was both historical and contemporary, looking at the roots of democracy in fifth-century Greece as well as the issues facing twentieth-century America. The Experimental College tried explicitly to build community and to create a seamless interface between the living and learning environment. The pedagogy stressed active learning, seminars, and assignments that asked the students to put the theory they studied into practice, which was a radical notion at the time. Teachers were seen as advisors and facilitators of learning rather than distant authority figures dispensing wisdom from a lectern. The Experimental College was short-lived. It became a lightening rod in all sorts of ways, and eventually became a victim of the Great Depression. It lasted only five years (Meiklejohn 2000; Powell 1981).

In the 1960s, higher education returned to many of the same themes of the Progressive Era. The higher education system nearly doubled in size, and community colleges became a dominant force in higher education. Serving a much more diverse student body became a priority, and building a more relevant curriculum became a theme. There was a continuing search for more holistic learning environments and a variety of experiments with structure, faculty and student roles and relationships, curriculum content, and pedagogy. As David Reisman and Gerald Grant point out in their history of this period, *The Perpetual Dream*, most of the reform efforts were modest, what they called popular reform efforts. Only a few tried to fundamentally alter the goals and structures of higher education. Cluster colleges were one significant example of a popular reform effort that attempted to humanize the scale of higher education and promote community by breaking large institutions into smaller units. Many traditional institutions established innovative programs and sub-colleges. Whole new experimental or alternative colleges were also founded, including The Evergreen State College, Hampshire College, University of Wisconsin-Green Bay, Ramapo College, University of California-Santa Cruz, and Empire State College.

Although interdisciplinary approaches were an important feature of many of these innovations, only a few of these efforts significantly altered traditional organizational structures. Most of the new institutions had significant internal contradictions from the outset, and they faced substantial compatibility challenges with the rest of the higher education system as they developed. Very

few survived into the 1990s. For the most part, they operated against the prevailing norms and structures, and on the margins. They also lost their niche, as mainstream institutions picked off many of their innovations, broadly appropriating ideas such as student-centered learning, independent study, writing across the curriculum, active learning, a more relevant curriculum, and interdisciplinary programs. From the outset there was considerable debate about whether any of these innovations could scale-up or become cost effective and a concern about whether they served the needs of an increasingly diverse student body. This issue remained unsettled well into the 1980s and has now become even more pressing in the current fiscal and political environment.

As part of these various reform efforts, learning communities resurfaced with the establishment of a number of short-lived programs in research universities at UC Berkeley (1965), SUNY-Old Westbury (1969), and San Jose State (1965). Harkening back to the Experimental College model at the University of Wisconsin, these efforts attempted to create a separate sub-unit and culture within a traditional institution, a seemingly impossible task. In 1970, The Evergreen State College became the first new institution to be holistically designed around the Meiklejohn notion of a team-taught integrated curriculum. A short time after this, a number of institutions took a different tack with learning communities by trying to adapt the idea to the existing structures and culture, rather than the other way around. This would prove more viable.

In the mid-1970s, SUNY Stonybrook and LaGuardia Community College developed adaptations of the learning community idea in the form of new models called clusters and federated learning communities. Taking a middle course between the whole-college idea and the radical institutional restructuring at Evergreen, Stonybrook and LaGuardia demonstrated ways to work with existing courses. The community college link was especially important since two-year colleges were becoming significant entry points into the higher education system. LaGuardia was a leading-edge community college, while Stonybrook contributed the stature of a research university. The leaders of these efforts re-articulated the rationale for learning communities in more modern terms. Patrick Hill, then at SUNY Stonybrook, was particularly eloquent about the growing social and intellectual atomism and the need for community in research universities. His writing and speeches broadly disseminated new ideas about learning communities in research universities.

Nineteen eighty-four was a watershed date in learning community history when the influential report, *Involvement in Learning*, was published. Recommendation Five called for "every institution of higher education to create learning communities, organized around specific intellectual tasks and themes" (NIE 1984, 33). Coming on the heels of another significant report, *A Nation at Risk*, the *Involvement in Learning* report focused on the process rather than the content of the curriculum, pointing to three critical conditions for excellence: student involvement, high expectations, and assessment and feedback. Active learning and learning communities were stressed as two critical means of increasing student involvement and responsibility. These reports set the stage for a continuing drumbeat for reform and higher standards of performance in

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both K-12 and postsecondary education in the next decade. They also reflected a continuing debate about what avenues of reform and institutional performance should be the focus.

The learning community effort gained greater momentum in the 1990s as the result of growing national emphasis on undergraduate education, the national leadership of the Washington Center at Evergreen and the significant research of Vincent Tinto, the leading scholar on student retention. Tinto did the first major study of the impact of learning communities at three very different institutions: the University of Washington, Seattle Central Community College, and LaGuardia Community College. He found that learning communities address a variety of issues in higher education and are an effective and affordable way of building community on commuter campuses.

Multiple efforts to improve undergraduate education also helped fuel the learning community movement. John Gardner's thirty-year effort to improve the first year of college through freshman seminars was a significant influence. Harkening back to a similar movement in the Progressive Era, the freshman seminars opened up new notions of who could be a teacher and what was an appropriate curriculum. At the same time, a number of efforts were made to raise the status of teaching. Ernest Boyer and Lee Shulman's work on the scholarship of teaching, first a book and now a reform movement based at the Carnegie Foundation for the Advancement of Teaching, called for a broader definition of faculty work and scholarship, as well as a more empirically grounded sense of good practice (Boyer 1990). At the same, Tom Angelo and Pat Cross encouraged teachers to experiment in their own classrooms using classroom assessment and classroom research. The American Association for Higher Education, the Association for American Colleges and Universities, the League for Innovation in the Community College, and the American Association of Community Colleges, as well as more role-specialized academic organizations, all actively promoted improving undergraduate education. Meanwhile, increasing calls for accountability for undergraduate education prompted more action.

Thus, the overall climate for focusing on undergraduate education has been positive in the last fifteen years, giving the learning community reform efforts status and a network of kindred spirits. A robust dissemination effort through the leadership of important higher education organizations and government and private funding sources has kept the conversation going and provided arenas for finding resources, experimenting, and cross-fertilization.

The learning community effort is now a very broad and diverse movement, covering everything from simple linked classes to living-learning programs to fully integrated team-taught programs. Many different models for restructuring the curriculum and for learning communities are used to address issues such as student retention, curricular coherence, and enhanced student learning. Learning communities are widespread in more than 500 colleges and universities, and the learning community effort continues to grow.

Learning Community Models

Learning communities can be understood as falling into a range of structures, from the loosely affiliated to the fully integrated, from linked courses to learning

clusters to coordinated studies programs. In the simplest cases, a small cohort of students enrolls in larger classes that the faculty do not coordinate. Intellectual connections and community building may be supported through an additional integrative seminar, often led by peer instructors, or it may be simple block registration. Freshman Interest Groups are the most common form of this type of learning community. In a second model, two or more courses are linked thematically. Generally, faculty members work to coordinate the syllabi and assignments, but teach their classes separately. Often, a writing or speech course is linked to a lecture-centered course, or a mathematics course is linked to a science course. Major goals are curricular coherence and integrating skill and content teaching. At the higher end of the integration scale is the coordinated studies program, which is thematically unified and taught by a team of faculty working together. Faculty teams of two, three, or four members plan the coordinated study around an over-arching theme, or around related content/skills subjects. Often, the coordinated studies learning community represents a substantial part of the time commitment for the students and faculty, even full time. Therefore, class scheduling becomes quite flexible; opportunities for blocks of time for lectures, discussions, field trips, workshops, and retreats arise. Pedagogical structures are mixed, with frequent use of small seminars, collaborative learning, and student projects.

Predictably, certain models are more structurally compatible with different types of institutions. Within research universities, learning communities appear most frequently as Freshman Interest Groups or FIGs. FIGs frequently link conventional, unchanged courses with an additional, often integrative, freshman seminar. This model easily matches with the current distribution system for general education requirements and can be staffed with part-time faculty and graduate students. Peer instructors, drawn from the ranks of upper-division or graduate students may facilitate the freshman seminar. While some FIG programs are little more than block scheduling, other programs purposefully involve full-time faculty and are quite sophisticated venues for substantial active learning.

In other types of institutions, learning communities have facilitated broader reconfigurations of course structures intended to promote deeper student learning, faculty engagement and collaboration, more coherence in the curriculum, more opportunities for active learning, and the creation of academic community. They foster new relationships among teaching faculty, student affairs staff, academic affairs staff, librarians, students, and students serving as peer tutors. The result is often an instructional team that brings a much more complex set of skills to the learning environment. Where the effort has gone furthest, it has been tied to large institutional goals and seen as a key strategy for improving undergraduate education.

The question for the learning community movement today is whether it is a sustainable innovation that has the potential to more fundamentally transform higher education. The learning community effort has moved from a few small experiments in the 1970s to a national reform effort touching more than 500 colleges and universities. The Pew Charitable Trust has funded a large national learning community dissemination project with the goal of moving the learning

community effort to the next stage in terms of both quality and reach. Located at The Evergreen State College, with a permanent home at the Washington Center for Undergraduate Education, the National Learning Communities Project provides support for the movement through a robust website, summer institutes, conferences and retreats, various publications, and consulting services. It also works with learning community fellows from colleges and universities across the United States who are the next generation of educational leaders, as well as with emerging regional centers of learning community work.

What Learning Communities Can Do: Aspirations

The working definition for learning communities based upon structure rests on the theory that some of the most distressing failings of contemporary higher education can be remedied through the linking of classes (on the minimalist end of the definition) or through a deeply coherent education (on the more ambitious end of the definition). As articulated earlier by Meikeljohn, a segmented, specialized educational system produces alienation rather than engagement in the community aspects of learning and works against education for democracy by stifling opportunities for shared, public discourse or engagement in complex interdisciplinary issues.

While the call for education for democracy invokes patriotic images of rational debate and the ballot box, some contemporary critiques of public discourse might give a better sense of what it would mean to educate students for the full potential of democracy. If learning communities are seen as the arena in which students begin to step into their potential role in a vital democratic discourse, the learning community becomes, ideally, an example of a strengthened public sphere of democratic engagement. One definition of the public sphere is that place where public concerns are rationally discussed and where any member of the public can be assured of participation on an equal footing, because personal differences are excluded. In her "Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy," Nancy Fraser suggests that the definition above is insufficient because it excludes the very inequities and differences which must be included, understood and addressed in order for the democracy to be truly democratic. "[T]he public sphere must countenance not the exclusion, but the inclusion, of interests and issues . . . label[ed] 'private' and thus treat[ed] as inadmissible . . . The labeling of some issues and interests as 'private' limits the range of problems, and of approaches to problems that can be widely contested in contemporary societies" (1992, 137). These limitations lead to, as Meikeljohn had said, "docility and indifference."

To practice such a reformed public discourse, the learning community must not only assure the welcome engagement of all members of the community, but also address the various frustrations generated by the contemporary condition of knowledge. Patrick Hill articulated the following challenges to functioning as an educated citizen: (1) the information explosion; (2) rapid societal change, so-called "future shock"; (3) extraordinary diversity of perspectives and canons, and the consequent lack of commonly agreed-upon standards; (4) the phenomenon of

conflicting expertise and conflicting claims to expertise; and (5) incredible complexity in all intellectual and public-policy issues with every issue becoming increasingly interconnected" (1991, 3).

The traditional classroom is ill-suited to meeting the challenges. It is organized and effectively orchestrated by a single mind, that of the professor who often serves his students best by focusing, simplifying, and clarifying, winnowing complexity down to a disciplinary perspective creating a useful structure for easier understanding. Unfortunately, unless the student replicated this approach by becoming a specialist, this kind of learning provides little preparation for the chaotic nature of information, even practical information, in our complex society, no preparation for the challenge of community discourse in an inclusive, diverse democracy, and no recognition that what has formerly been excluded as private must be welcomed into the circle of discourse if inequities are to be seriously addressed.

The structure of the learning community suggests and puts into practice the idea that information, thinking, experience, and knowledge do not come in discrete packages. By combining more than one discipline, and by placing at least two teachers in equal connection from different perspectives, one takes the first step into the world of complexity without necessarily generating the entire chaos that would replicate day-to-day experience. The application of diverse disciplines to a thematic inquiry requires that competing interests and values interact. In an effective teaching team, students observe negotiation of ideas by the team. Students begin to see how knowledge might be a process created within intellectual interaction, rather than an object that is transmitted.

Additional pedagogical characteristics that often emerge in the learning community go beyond passive observation of faculty-negotiated discourse. Construction of knowledge through learning community discourse, the negotiation of ideas, is extended to the students who enter into the process of knowledge creation as well. The predominance of lecturing is generally reduced and with lectures and presentations of expertise based upon materials that the students have absorbed through readings and/or workshops, students engage the lecturer; shared texts produce a shared object of negotiation. Additionally, the full faculty team is present so that question and dispute evolve from the disciplinary perspectives of the faculty. To reiterate, the disciplinary agenda or commitment of the individual faculty almost automatically generates the necessity for negotiation, argument, active listening, compromise, and the gradual creation of new relationships to the thematic focus of the learning community.

Structurally, the coordinated studies learning community also assures that the students and faculty have the appropriate time to engage in active learning. With larger time blocks, beyond the fifty-minute period, students engage deeply in seminars or work on substantive workshops that develop understanding through interactive, hard work focused on shared reading. Building those intellectual connections and the emotional trust necessary to disagreement is aided by longer class periods. In some institutions, learning communities last longer than a single term, and an entire academic year allows the students to develop a knowledge

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base and connection to the group that supports serious discourse. By the end of the year, students in the learning community have gained significant command of their inquiry, often culminating their learning community experience with research-based, in-depth presentations or symposia.

Thus, students' develop the capacity for active engagement in the construction of knowledge within an intellectual learning community. When learning communities add a residential, community-service or extensive field component, the community aspect is strengthened and personal elements (elements that so often form the basis of inequalities) generally excluded from the public sphere have more opportunity to enter. Non-academic connections such as recreational opportunities, volunteer work, challenge activities, potlucks, field trips, internships, events coordination, and other forms of community-based activism deepen the interconnection of students and faculty and give communities the courage to consider highly charged issues. Because structures facilitate interaction outside of already extended and interconnected classes, students develop a commitment to their academic experience that is grounded in their sense of connection to their peers as well as to their teaching team. Learning communities, especially those that include the students' entire academic schedule and their social context, bring the traditional bull session into the academic sector. Academic engagement is reinforced as relevant and vital.

Relevance was the cry of the 1960s, one which educational reformers heeded. That relevance goes well beyond the social interconnectedness described above. One aspect of the disconnection and chaos that challenge the creation of the well-educated and engaged citizen is cultural conflict as our increasingly diverse population and our rapidly evolving student body experience less homogeneity in the classroom. The experience of academic community is an important opportunity to find connections across cultural divides. The practice of negotiating and creating knowledge within the academic community is another. The creation of trust necessary to do so is essential. But perhaps most important, is the recognition that the learning community is part of the larger societal whole.

Taking theory into practice therefore becomes one of the common aspects of learning communities, making education relate importantly to the society at large and the students' roles as members of the democracy through service-learning, through applied research, and through the interconnection of theoretical work with the pursuit of moral action. This work requires strong, supportive communities of learning.

All these commonly occurring aspects of learning communities are grounded in the complexities of today's cultural context, complexities that must be included in the classroom if it is to be a realistic preparation for life beyond academia. Characteristics of the learning community that most fundamentally address these complexities have to do with dramatic changes in the authority of the teacher, in assumptions about the character of knowledge, in the relationship of the classroom to the larger social order, and in the relationship of the students to their teachers, to one another and to their work. Because complex learning is confusing, we need one another in order to get the work done, both in the classroom and in the larger world.

Ascending Steps of Learning Community Goals and Impacts

As described above, the goals and achievements of learning communities go far beyond retention or more efficient transmission. Jean MacGregor has articulated a set of steps which describes the range of potential goals and impacts of learning communities, from the simple and minor to the complex and major. These steps describe "the kinds of goals learning communities articulate for their programs, and the kinds of assessment and evaluation evidence that is gathered. Too often, both goal-setting and evidence-gathering are aiming too low on the staircase. Moving to higher outcomes is hard—but ultimately worthwhile—work (Smith et al., 2004)." The steps at the student level begin with basic goals such as getting students enrolled and participating and rise up through greater interaction and retention and on into deeper achievements such as greater cognitive complexity, new or reaffirmed values and aspirations, and enhanced leadership skills. For teachers, the possibilities range from increased interaction with students and peers and rise up to a greater sense of community, enlarged pedagogical repertoire, deepened understanding of diversity, widened scholarly interests, increased motivation and enhanced academic leadership abilities. On an institutional level, gains move from strengthened interdepartmental or interoffice collaboration and understanding and rise up to better service to diverse students, and on into structures and reward systems that support learning communities, strengthened institutional motivation, and new or reaffirmed aspirations and commitment.

Are Learning Communities Successful?

There have been two major studies of learning communities and myriad local assessment reports. Generally speaking, these assessment studies have been limited in scope and widely variable in quality. Most are generated to support the goal of program improvement and make no effort to meet the standards of rigorous research. Most of the assessment work focuses on the impact of learning communities on students, especially in terms of student retention and student persistence in college, student satisfaction and motivation, and academic performance, usually assessed in terms of course completion and grades. Some research explores the impact of learning communities on faculty and institutions and in specific areas of the curriculum such as developmental education and general education. The literature includes studies of the impact of learning communities on student skills such as critical thinking, writing, oral communication, quantitative reasoning, and information literacy.

The first major study of the impact of learning communities on students was conducted under the auspices of the National Center on Postsecondary Teaching, Learning, and Assessment (NCTLA) by Vincent Tinto at Syracuse University. Known for his cutting-edge work on student retention and his landmark book *Leaving College*, Tinto turned his attention to learning communities and collaborative learning in 1990 when he became one of the principal researchers at the newly federally-funded NCTLA at Pennsylvania State University. With two of his graduate students, Anne Goodsell Love and Pat Russo, Tinto did an indepth study of the University of Washington's Freshman Interest Group Program,

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LaGuardia Community College's Clusters, and Seattle Central Community College's Coordinated Studies Program. The learning community programs at these three institutions were quite different, providing rich opportunities for studying different models and different contexts. Tinto's NCTLA effort culminated in a series of reports and a large national conference on learning communities and collaborative learning at Pennsylvania State University in 1994. Both the publications and the conference broadly disseminated the message that learning communities addressed a variety of significant issues in higher education (Tinto 1993, 1994, 1997; Ratcliff and Assoc., 1995).

Although previous work by Alexander Astin (1993) and others had suggested the crucial importance of the peer group, little research suggested how the peer group could be forcefully marshaled to support student learning on commuter campuses. While Tinto's previous work suggested that "student involvement" was key, the learning community study carefully described how such involvement could be fostered through collaborative learning. Tinto's research confirmed that students in learning communities persist in school and learn more. "Furthermore, they learn from each other and develop a sense of responsibility for the learning of others" (Ratcliff 1995, 10). The research demonstrated that involving and academically challenging campus environments could be purposefully built, even on commuter campuses, and generally within the constraints of existing budgets.

The second major study, Honored but Invisible: An Inside Look at Teaching in Community Colleges, was conducted by W. Norton Grubb and colleagues at Berkeley. They observed about 260 instructors and interviewed administrators from every type of community college. Their work defined three different ways in which learning communities are being used in community colleges: to work with special populations (for example, the Puente program for Latino students now present at thirty campuses or the PACE program for adults); to provide a multidisciplinary educational experience (for example, in general education programs); or to address specific issues or problems (for example, high attrition rates in particular courses). Examining many different curricular areas in community colleges such as academic transfer courses, developmental education, occupational and professional programs, and ESL, Grubb concludes that learning communities have enormous promise in community colleges for improving student learning and enhancing faculty vitality. Nonetheless, simply blocking courses does not lead to learning communities benefits, and Grubb found actual implementation highly uneven. Problems stemmed from unclear goals, inadequate faculty training, teams forced to teach together, incompatible teaching teams, status differences within teaching teams, and various other disjunctions. Many of these issues beg institutional support. Grubb concluded that community colleges are not making adequate investments in faculty development to bring their aspirations as teaching institutions within reach.

"[Learning communities] can be used to address specific instructional problems as well as to create communities of students and faculty. But they face individual and institutional barriers. Faculty have to be willing to teach in more collaborative and integrated ways, and colleges have to be willing to support

practices that look quite different from familiar course offerings. Without both individual and institutional support, learning communities tend to collapse back to 'business as usual'" (Grubb 1999, 268-269).

Recently, the National Survey of Student Engagement indicated that participation in learning communities is positively correlated with its five benchmarks (NSSE 2002). Numerous institutional studies reviewed in a meta-analysis produced by the National Learning Communities Project corroborate the overall finding that learning communities increase student retention, persistence in college, and degree completion. They also usually result in enhanced student achievement in terms of grade point averages and higher student satisfaction. Learning community students typically become more sophisticated users of college resources and are generally more likely to take advantage of support services and the library. Student self-reports often indicate that learning communities contribute substantially to improvement of various skills such as writing, critical thinking, working in groups, public speaking, and research and analysis (Taylor et al. 2003).

Institutional Support for Learning Community Success

The significance, contribution, and effectiveness of any learning communities effort can be strengthened significantly through institution-wide support for collaboration and innovation. One important strategy is to marshal, interconnect, and network existing resources and services. Once the institution re-examines assumptions about the isolation of the classroom experience from other aspects of college life, a wide array of student services, academic resources, and new expertise can be brought into play. The spread, success, and depth of any reform depend upon the identification of the intellectual and structural alliances that will create the institutional support necessary for the health and longevity of the reform. As one considers the justifications for learning communities as well as their benefits, as one considers their potential, it becomes clear that the rapidly changing college library and the new emphasis on information literacy in undergraduate education suggest a strong and necessary alliance between librarians and other faculty interested in education reform.

The Role of Libraries in Learning Communities

Issues about the condition of knowledge in the contemporary world and about what that means for the classroom are, not surprisingly, echoed in academic and educational services outside the classroom. The library and academic research, in particular, have been changed profoundly by the explosion of publishing, the break-neck pace of changes in information delivery technology, and the glorious and dauntingly chaotic flowering of information on the Internet. As libraries, information specialists, media specialists, librarians, and faculty members struggle to keep up with these rapidly proliferating changes, they must more deliberately prepare students for effective use of information. Along with greater demand for rapid, flexible, and facile learning comes the need for practicing deep and thoughtful engagement with this new-found wealth. One response is a widespread interest in "information literacy" as one essential aspect of general education.

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Contemporary Issues in Information Literacy

Much current professional discussion of library instruction centers on the ACRL Information Competency Standards for Higher Education, which form a useful starting point for institutions to develop, reform, or assess their services and their instructional programs (see Appendix). These standards also dovetail nicely with the tendency toward outcomes assessment in reform movements in higher education at large. Many documents describing learning community goals include attention to these outcomes and to the expectations they represent for teaching and learning.

The development of the standards shows that the profession of academic librarianship focuses increasingly on active instruction rather than on a passive service or information-delivery model. The reform efforts within academic librarianship attempt to lead professional practice away from the traditional but still very common model in which the faculty assigns papers, the students do their research independently without instruction, and the librarian is involved only when the self-motivated student appears at the reference desk to ask for help. The 2001 ACRL initiative to define best practices in library instruction resulted in Characteristics of Programs of Information Literacy that Illustrate Best Practices. "Intended to help those who are interested in developing, assessing, and improving information literacy programs," these characteristics point to the general emphasis and importance the profession currently places on information literacy instruction. Further, several categories suggest an emphasis on collaboration with teaching faculty and connection with disciplinary content. An entire section devoted to collaboration recommends work among disciplinary faculty, librarians, and other program staff including engagement at all stages (planning, delivery, assessment, and refinement) and cites outcomes such as campus-wide support for the information literacy program, fusion of information literacy with disciplinary learning, and enhanced student learning. The pedagogy section advocates diversity of approaches, active and collaborative activities, critical thinking and reflection, support for student-centered learning, and connecting information literacy to other coursework and real-life experiences. The section on staffing reiterates the emphasis on teaching faculty members, librarians, and other staff working together and recommends collaborative approaches in general (ACRL 2001).

Kasowitz-Scheer and Pasqualoni cite the ACRL best practices document in the 2002 ERIC digest *Information Literacy Instruction in Higher Education: Trends and Issues* and note the following characteristics of successful information literacy instruction from a review of the literature: student-centered, active, collaborative learning methods; adherence to instructional design principles; relevance to curriculum; based on collaboration among librarians, faculty and others; supportive of faculty learning and development; and, scalable in order to reach many students (Kasowitz-Scheer 2002). Clearly, the literature of professional academic librarianship reinforces the rhetoric and aspirations of the learning community movement. Outreach and curricular integration are watchwords in the literature and professional development activities of the profession.

Professional advocacy for the integration of library instruction with the curriculum has a longer history than the information literacy movement. For three decades, academic library literature has reflected the contributions of innovative institutions such as Earlham College that have energetically advocated expanding vital bibliographic instruction programs to embed them in the disciplinary content of the larger curriculum. On a parallel track, in response to the general education reform movement, institutions have created independent library courses. Debates have raged (mildly) about the benefit of stand-alone information literacy classes versus course-integrated models and about the disadvantages of promising too much versus the dangers of isolation from the curriculum. But in general and over time, there has been a significant increase in the emphasis placed on instruction, in addition to and even in competition with time spent in direct reference or research service, the traditional site of library instruction in the academic library.

The reform of academic library practice now centers on overcoming the service model that keeps the librarian behind the desk and the faculty member in the classroom, with a few students successfully shuttling in between. That model provides little opportunity for organized instruction on research processes and no support for making library-based connections to the writing process or product. Current library literature focuses on how best to generate and foster collegial relationships to develop robust opportunities for library instruction connected to the curriculum. The Collaborative Imperative: Librarians and Faculty Working Together in the Information Universe, a collection edited by Dick Raspa and Dane Ward, "is about collaboration as its exists now and as it could exist in the future." (2000, vii) A set of case studies on major collaborative models, an extended list of additional collaborative projects, a literature review, and a directory of electronic resources provide tools to support collaboration. If collaboration in learning communities and other instructional formats is critical to connecting library research instruction to the stuff of the curriculum, then the networking that his text facilitates is one important structural tool. The text discusses the growing emphasis on faculty-librarian collaboration, 60 percent of which focuses upon instruction (Gallegos 2000, 98).

In addition to the current emphases noted in the professional literature surveyed above, which coincide strongly with the purposes and structural potential of learning communities, learning communities have been specifically targeted in academic library conferences and other professional programs. Most notably, the ACRL president's theme of the year for 2001 was the learning community as a tool for excellence in academic libraries (Reichel 2001, 818).

Modes of information literacy instruction can be understood as a spectrum that ranges from time-of-need, student-centered consulting (conducted primarily at the reference desk) to formal (curriculum-centered) information literacy classes. This distinction becomes important in considering models for libraries and librarians in learning communities. In an article provocatively titled, "Who Will Lead the Reform of Higher Education? Librarians, of Course!" Patrick Hill argues that the role of the teaching faculty member as expert is inappropriate for our current needs. That role contrasts with the librarians' professional ethic,

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which is based on the needs and interests of the student and upon an open-ended approach to information. Such an approach assumes that the librarian is not responsible for determining which questions are worth exploring, but strives to work with any inquiry. In other words, as Hill argues, the role of expert guide, rather than expert, is more familiar to the librarian, less comfortable for the teaching faculty member, and more useful to the student (1991, 6).

Additional concerns are most often related to the recognition that the one-shot tour, or even the extended workshop, is poor and insufficient preparation for serious research. Clearly, disciplinary or theme-based instruction carefully developed in close connection to process-rich research projects constitutes a better way to teach effective research, that is, research that matters. Additionally, a context-specific focus must also provide approaches to methods that will transfer to future contexts, tools, and projects. Yet it is difficult for the librarian to corner the needed time to offer extensive, fully developed library instruction within the context of stand-alone classes whose faculty already struggle to cover their content. If the librarian does have the opportunity to offer a complete library instruction course, the process is rarely connected with academic course content that can give the process meaning for the students. Significant time for library instruction directly connected with and supportive of actual class work is needed. Working in a learning community makes such connection and support possible.

The Web has dramatically raised the stakes. On one hand lies the perspective that libraries and librarians have become irrelevant, as both the naïve freshman and the efficiency-focused public policy analyst claim that "everything" is on the Web anyway. On the other hand, the traditional book lovers reside, who bemoan the impoverished perspective that chaotic data on the Web is somehow equivalent to information, much less knowledge. Academic libraries stretch to respond to expectations for immediate access to electronic formats at the same time they serve more and more patrons who are unaware of the existence, much less the content, purpose, or structure of academic-level discourse. Because the format, organization, and content of information resources change so rapidly, though, many faculty members are acutely aware of the need for specific strategies to engage students with academic information, whether on the Web, in electronic formats, in books, or in archives. From among such faculty members come important allies.

Additionally, librarians seek alliances with computer and technical staff in response to faculty and student demand for more technology-based research instruction. Unfortunately, technical staff tend to experience an even greater distance from the curriculum and the faculty than that of the traditional librarian. Thus, while some libraries focus on these alliances with computer services, they do so without increasing their connection to the academic and intellectual centers of the college and sometimes even weaken their potential for strongly embedded, intellectually connected instruction. The library should instead serve as the connection to the curriculum and support technologists by including them as librarians work with the faculty.

The confusion of resources is replicated in further ways. Students of all ages come to college, with research skills that are up-to-date or obsolete, woefully

insufficient or brilliantly developed. Often, students are not only working to find their way within competing discourses, but also competing media. They struggle with decisions about what media to use, what media to create, why format matters, how much time media preparation might take, and what media selection will do to their message. These expanding questions from the fields of media technology or graphic arts, have as much academic impact as the explosion of the quantity of material itself. How much time and money should we spend offering and teaching the latest in a wide range of presentation media, analytical tools, and access formats? What is the relationship between the format and the content we teach? How can faculty members, media specialists, or librarians keep up with the constant upgrades of equipment, software, and applications? How can we keep our questions tied closely to the curriculum and avoid undue attention to thoughtless acquisition of the latest equipment and the largest lab?

Our current situation is that any student can easily locate information (and even a term paper!) on the Web about almost anything she or he cares to research. Whether the information is relevant, reputable, short, long, radically profound, or tritely conformist is another set of considerations. Whether the student knows what to do with information found, whether she or he can look at it critically, whether she or he can understand it, or whether that information can be connected substantively with the classroom experience are questions that replicate the larger questions raised earlier about challenges to educating the democratic citizen. These are issues around which the teaching faculty member and the librarian can form alliances.

Shared Concerns; Shared Solutions

"The confluence over the past decade of new priorities in educational reform with rapid developments in information technology provided a perfect opportunity for academic librarians to develop and implement formal information literacy programs on their campuses, and to assume a higher profile in terms of classroom instruction" (Scott 2000, 41).

One frequently cited characteristic of effective learning communities is that they are based upon a collective inquiry into a significant, unifying theme. In other words, not only are courses linked, but also the questions considered are real and important to the students and the faculty members in the learning community. Negotiation, truth-seeking, and knowledge building are essential and vital parts of the learning community's shared work. Ideally, an inquiry-based learning community revolves around a question that has no answer; the inquiry is a real question, and like most real questions, it is too complex and rich to have any single answer. Although faculty members have experience and expertise, they do not have all the answers but make contributions to the larger, shared, developing intelligence and expertise of the learning community. Faculty members in learning communities are simply masters at learning.

Based in serious, open-ended inquiry and the process of developing students as experts, and rolling in a comparative "extravagance of time," a phrase used by Evergreen library faculty member Julianne Unsel, the inquiry-based learning community is, by necessity, involved in research. While this research may

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sometimes be based in the field, the community, or the laboratory, for the most part the library and the information world it attempts to organize and represent are the largest, most complex, and (increasingly) most confusing laboratories conveniently available for exploration. The library balances competing demands for complex intellectual diversity with the possibility of entering into conversations with and interrogating well-developed, already proceeding discourses.

. . . the increasingly chaotic

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"The Universe (Which Others call the Library) . . . "

Jorge Luis Borges, The Library of Babel

Thus, the library often becomes the laboratory for students' individual and group explorations into serious, in-depth consideration of their fundamental, shared questions. Students add to the group experience of shared reading, seminar, lectures, and workshops their analysis, distillation, and synthesis of pre-existing work and their research results. Often, they become formal teachers within the learning community through presentation and defense of their work at the learning community level and beyond in all-campus presentations or miniconferences.

Additionally, the increasingly chaotic nature of the world of information demands deliberate introduction to issues of organization, interpretation, critique, and selectivity. Because academic discourse has developed from a tradition and culture (as is true for all other discourses, from journalism to fortune-telling), students still need to understand those roots in order to survive academically. Students need to understand the traditions that inform their thinking even though (or perhaps because) they are not consciously recognized as influences. The introduction to those traditions is still relevant as a matter of understanding the roots of academic knowledge, even if only to challenge them. The smorgasbord of the Web has not changed this necessity; in fact it has expanded the demands upon the student for discernment. The structure for learning and practicing that discernment is not yet thoroughly incorporated into academia.

The call for information literacy instruction, and the search for ways to make that initiative thoughtful and effective, connects closely to reforms demanded generally in higher education. If learning communities respond to many of the identified challenges for coherence within chaos, for community, for constructing knowledge, for active learning, for expanded and changing roles in the classroom, how might the library, with similar demands, interact to reinforce the quality of learning and, potentially, procure a more secure future for this particular reform?

Librarians and Learning Communities Today

Institutions that recognize the link between information literacy and powerful, inquiry-based learning involve librarians in their learning communities. The spectrum of involvement varies widely, just as the degree of curricular integration varies among the various learning community models. The

most meaningful engagements are those within fully integrated learning communities. One way of thinking about the array of information literacy instruction within learning communities is to consider two axes. The vertical axis is the level of depth of instruction within the field (in this case, the depth of engagement of the student in highly focused information literacy theory and practice). The horizontal access is the degree to which this instruction is integrated with a larger learning community (in this case, how well research instruction directly serves the needs, activities, and thematic context of the larger learning community). The greater the commitment of time, energy, and collaboration, the farther along both axes the learning community can potentially go; students receive generous technical instruction carefully and fully embedded in the nature of their learning community's inquiry. Both in library instruction and in learning communities at large, the higher aspirations of the enterprise are only possible with more complete integration.

The demand for more commitment of time and energy to collaboration between librarians and teaching faculty members leads to the question of resources. Any information literacy program struggles is what can be done to respond to competing agendas: (1) offering effective information literacy training for most incoming students in order to assure their success as students at the college level; (2) offering in-depth information literacy, designed to match curricular content and projects; (3) offering advanced research instruction when students reach that level of competence and more specialized need; and (4) continuing to respond to students effectively as they ask for help at the point of need—the traditional reference instructional function. Thus, strategies for scalability is one of the significant issues considered in this examination of various information literacy programs.

The following typology for libraries and learning communities is based first on the type of structure and secondly on the degree to which information literacy is engaged with integrated curriculum in the learning communities.

Information Literacy in Learning Communities for Freshmen

A Preliminary Note on the First-Year Experience

The majority of formal or structural connections between libraries and learning communities occurs within the context of the freshman-year experience. As mentioned earlier, the most common form of the freshman experience model is the Freshman Interest Group (FIG). In this model, two or three regular courses in the curriculum, sometimes unchanged in content and pedagogy, co-register a common cohort of students under some theme. Putting together general education or pre-major courses helps students choose among the many options in a distribution list. An additional freshman seminar may be part of the constellation of courses and the seminar serves as an introduction to college life and work, including library research. In many cases, a senior student acts as a peer mentor and pedagogy focuses heavily on active learning. In those cases, the FIG becomes a student leadership program as well. Shared living space and field or service experience may be added to the FIG to build an even stronger learning community.

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The idea of the Freshman Seminar version of the FIG started at the University of South Carolina with John Gardner's early work on the first-year experience and developed into a way of orienting new students to large universities. Often a student affairs initiative, the Freshman Seminar is now found in an overwhelming majority of all institutions, though the form it takes varies widely. Sometimes the Freshman Seminar is a credit-bearing course of one to four credits; sometimes it is non-credit. Recent research by Gardner and his colleagues suggests that the vast majority are extended orientations or college adjustment courses, which introduce students to the various offices and services of the university, as well as study-skill tactics and issues such as stress management and time management, a common issue with first-year students. (Gardner 2000). Not surprisingly, this kind of "gateway" program or course is often where information literacy instruction is offered.

Freshman seminars do appear to work. They are associated with larger gains in students' self-rated skills and abilities, stronger feelings of adjustment to college, and a greater feeling of contact with faculty (University of California, Los Angeles "Your First Year College Survey"). In the face of other information demonstrating that students are not generally aware of or using campus support services such as the library, this initiative is important, but it represents the low end of the learning community spectrum of engagement. Although a large proportion of institutions report offering Freshman Seminars that are part of a learning community, a more detailed analysis of syllabi suggests that less than 10 percent are "high end" learning communities in which there is real integration among the courses. It is only with serious integration of courses that "deep learning" and interdisciplinary perspectives are likely to occur, where there is real inquiry-based learning and the most potential for research-based instruction.

Independent, but Co-registered, Linked Information Literacy Courses

As described above, the simplest type of freshman learning community, or FIG, involves co-registration in two or more classes. At the most basic level, it may mean that the workload in the two classes is coordinated so that students do not have competing assignments and the students get to know one another as a cohort. The work and content of the two classes remain, however, essentially indistinguishable from the same course when not linked. In the context of library instruction, this model has been applied to link information literacy classes with other basic skills classes such as composition. There is no central, thematic focus for this work and little integration of activities among the courses.

A subset of the model that emphasizes information literacy and provides visibility and coherent research curriculum is the information literacy course designed and taught by librarians and linked to thematic learning communities for freshmen. At least two benefits of learning communities are achieved in these programs. First, information literacy instruction can be provided consistently and coherently for a large number of first-year students. Second, the synergy created by students working on a shared theme, rather than just a skill, becomes available.

This model, then, allows for deliberate delivery of an information literacy agenda, but the degree to which the information literacy instruction is responsive to coordinated curricular content may vary widely. Generally, it depends upon the time and energy that library and other teaching faculty can commit to designing specific library curriculum and research-based activities to match linked content. In other words, the commitment and capacity for collaborative teaching are key. Examples below address various strategies for responding to this challenge to offer information literacy instruction that is both extensive and responsive.

California State University-Hayward (CSUH)

At California State University-Hayward, a required one-credit library course is linked to first-year theme-based clusters. Each cluster satisfies a general education (GE) breadth requirement in the social sciences, sciences, or humanities, and through the clusters most freshmen receive information literacy instruction. The first-year clusters include discipline-based components, composition, communication, and critical thinking courses in addition to informational literacy (Faust 2001). Second-year clusters are not linked to information literacy. Following is a list of clusters for winter 2003 from the University Library web page, each of which has a one-credit library course attached: "Spirituality," "Individual and Society," "The Ancient World," "Healthier Living," "Science, Technology and Society," "Language and Culture," "Evolution," "How Things Work," "Gender in the Arts," "Literature," "Theatre," "Biology/Chemistry Sequence," and "Viewing Diversity."

Syllabi for this one-credit information literacy course show a carefully constructed set of expectations and consistent material coverage. As described by Kristin Ramsdell, coordinator for library instruction, "We all cover the same concepts but do it differently. It is, however, very much a shared course in that we originally (1998) developed a 'master syllabus' and class schedule to help everyone get started. We have a shared server where we all put our documents and we freely share and borrow materials, ideas, etc. . . . it is understood by us all that we are working on LIBY 1010 in a shared environment" (personal communication, February 7, 2003).

The original planning time commitment to design the information literacy course was thirty hours during the summer before the implementation of clusters beyond time spent planning for individual courses within the clusters. Implementation of widespread learning communities with serious engagement by librarians necessitates sufficient planning time for teams.

Concerning the influence of cluster content on library courses, Ramsdell reports, "While we may all teach some basic indexes . . . we will also teach subject specific databases relevant to the cluster. However, since these clusters are strictly GE . . . we will emphasize the transferability of many of the searching techniques and other strategies so the students can apply them in whatever field they are eventually going to study. Our goal . . . is to try to balance relevance to the task at hand [what they are doing in the clusters] with learning that will carry over into other areas once their cluster experience is finished" (personal communication, February 7, 2003).

The first-year clusters include discipline-based components, composition, communication, and critical thinking courses in addition to informational literacy.

Time and energy devoted

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Pretests and posttests with limited national comparison demonstrated the program's effectiveness in 1998-99 and 1999-2000 with overall gains in response to each of ten questions about specific research-related tools and definitions. Strongest gains were shown for the more technical questions about their understanding of research-relevant terms such as abstracts (38 percent and 32 percent gains) and scholarly sources (41 percent and 43 percent) (Faust 2001).

The CSUH library has succeeded in having information literacy recognized formally as a curricular offering and a requirement of general education. They have also succeeded in developing and delivering a required credit-bearing class that is connected with a larger learning community. The CSUH librarians continue to face the challenge of assuring that the library instruction effectively connects to the content of the learning community and the research assignments that support that content. The strength of connection with cluster faculty varied (Faust). "The best clusters . . . are the ones where the most collaboration takes place . . ." (K. Ramsdell, personal communication, February 7, 2003). Time and energy devoted to collaborative works remains central to the ability to connect library instruction and cluster content.

As with any vital learning community, this GE program is under revision. After the first year, critical thinking was separated from the first-year clusters so that students could take that requirement later if they chose. Among the current revisions under consideration are to make the existing first-year clusters more collaborative and to increase the library course to two credits (Ramsdell, personal communication, February 19, 2003). Both steps would provide the opportunity to address concerns about how to more fully integrate the library course with the thematic focus and shared intellectual work of the clusters.

The CSUH program is investing significant effort on integrating library instruction into the freshman-year cluster program, an effort dependent upon strong collaboration between faculty members and instructional librarians. In the next example, the librarians describe a strong commitment to collaborative teaching, by which they mean collaboration with and among students, as well as among faculty and librarians. Additionally, the program is scaled up to cover the freshman seminar through use of student interns.

University of Hawaii

In 2001, academic librarians demonstrated their commitment to learning communities by awarding the ACRL Instruction Section award for Innovation in Instruction to the University of Hawaii at Manoa (UHM) library.

In 1998, UHM instituted a series of learning community programs for first year undergraduate students titled "First Year at Manoa." The five-year goal is for every first-year student to be part of a learning community during one of their first two semesters. Four sections of LIS 100 were offered as part of this First Year at Manoa effort in fall 1999 and six sections were offered in fall 2000. Under the First Year at Manoa umbrella learning communities are offered in several programs. LIS 100 is taught within three of these (Manoa Connections, Selected Studies, and Freshman Seminars) . . . In the Manoa Connections

Program librarians teach sections of LIS 100, which are linked with one to three other content courses for undergraduates such as American Studies, English, History, Medical Technology, Music, and Sociology. The students enrolled in a section of LIS 100 are simultaneously enrolled in the other courses in the learning community. Student enrollment is limited to twenty students . . . Selected Studies is the freshman/ sophomore component of the Honors Program at UHM. A learning community linking LIS 100 with English has become an established part of the Honors Program and is offered both fall and spring semesters. Student enrollment is limited to twenty students . . . The Freshman Seminar Program is limited to first-year students who take seminar style courses from the core curriculum of the University. Graduate students or senior undergraduate students teach all Freshman Seminar courses. The internship with the UHM Library Information Science Program provides graduate students to teach sections of LIS 100 as part of the Freshman Seminar Program. Student enrollment is limited to ten students. (University of Hawaii at Manoa Libraries, 2001)

LIS 100 is a thorough course, more sophisticated than most information literacy offerings, which tend to command fewer than LIS 100's three credits. As described by Public Services Division Head Randy Hensley,

Students examine how something is known, the purposes of knowledge, and the standard structures for scholarly investigation such as hypothesis, methodology, credibility, validity, and the structure of discourse. This integration provides a meaningful context for both the nature of libraries and universities. Students examine forms and functions of information resources, the organization of libraries, bibliographic structures, Internet, and other technology based resources. They also learn about the kinds of information available—print, visual, and oral—and which are applicable to categories of inquiry. They also develop skills in effective question formation . . .

The course provides an understanding of the university as an institution, its structure, environment, purposes, history, and methods. As a result, students gain an appreciation for their own role at the university and its relationship to education in the larger society. More importantly, students begin to understand the nature of scholarship as it pertains to research and how their own learning and work at the university will actually be a form of contribution to scholarship. (Hensley, 2002)

Small class size and scalability are addressed in this program through the use of graduate interns from the University of Hawaii at Manoa Library and Information Science Program who teach sections of LIS 100 as part of the Freshman Seminar Program. A librarian meets weekly with the intern for discussions of pedagogy and class progress.

LIS 100 sections taught by instructional librarians and linked to general education learning communities are intimate classes with strong links to their respective content courses. A librarian who teaches a section each semester

"Collaboration is a key word in these classes, which is reflected in a workshop approach to writing and researching.

Students collaborate through hands-on research, critiques of peer drafts, and oral presentations based on readings, writings, and research on a range of topics and forms."

linked with English 100 emphasizes, "Collaboration is a key word in these classes, which is reflected in a workshop approach to writing and researching. Students collaborate through hands-on research, critiques of peer drafts, and oral presentations based on readings, writings, and research on a range of topics and forms" (V. Lebben, personal communication, February 20, 2003). Thus, the expectations and practices of a learning community are carried through into the library course, taking advantage of the pedagogical style established throughout the learning community. The English and library faculty members meet and discuss activities and progress five or more times each semester and attend one another's classes three to five times a semester. Classes are scheduled back-toback so that the combined time frame may be manipulated to allow longer sessions for one or the other aspect of the program as needed and agreed upon. Thus, although a strong thematic inquiry does not drive this linked course learning community, a strong collaborative context is based on complementary aspects of the research and writing continuum, faculty communication, and strongly connected assignments. Librarian Ross Christensen has taught his LIB 100 with honors freshman composition several times and has adapted the same framework to a course connected to educational psychology (R. Christensen, personal communication, February 18, 2003).

Hensley teaches LIB 100 with the foundation course for the Rainbow Advantage Program (RAP), a general education learning community that offers two or three linked courses for the entire freshman year. RAP serves as a gateway course for integration into college and includes a service-learning component. The culminating LIB 100 research project for RAP is a research pathfinder based upon the students' service learning agency, so that the research is thus directly connected to the thematic focus of the learning community's more general inquiry.

Throughout the University of Hawaii at Manoa program, information literacy instruction and library research are developed as deeply collaborative teaching tools and the style of instruction within the library instruction components successfully mirrors the active learning methods of the linked course.

Bellevue Community College and the CTILAC

Bellevue Community College in Washington state has established a Critical Thinking and Information Literacy across the Curriculum Initiative (CTILAC), based heavily in the sciences. The CTILAC website portrays extensive faculty development work, lots of information literacy tools and exercises, assessment tests, and syllabi, all supporting a serious infusion of information literacy into the science curriculum at all levels. While much of the work is with traditional programs, one program is a coordinated studies learning community that includes an information literacy course. Biology 101, Chemistry 101, Human Development 120, and English 103 (Information Resources) are linked to form "Of Mice and Matter: A Successful Journey through the Scientific Maze." The Information Resources course explores and links the chemistry and biology content.

The syllabus and assignments for this program are instructive examples of how staged research interacts with program content. An early assignment sets

groups of students the task of seeking a variety of definitions for key concepts related to the broad philosophical ideas considered in early discussions in the program. Students are thus engaged with an array of reference tools, and with a range of disciplinary perspectives. At the same time, through use of highly distilled reference sources, this controlled experience reduces the likelihood of being overwhelmed by the complexity of discourse about major concepts across the fields. The terms used are fundamental to any serious theoretical discourse about the disciplines under consideration: "faith," "paradigm," "natural selection," and "theory," are examples. As small groups use reference and other definitional tools, synthesize what they find, and report out to the learning community, they achieve several objectives: (1) students start to collaborate over a shared, specific but critical and substantive problem; (2) students avoid drowning in an overload of information while still engaging a realistic range of conflicting perspectives; (3) students build technical and intellectual familiarity with specific information sources; (4) students begin to understand and explore realms of disciplinary discourse; (5) students practice synthesizing conflicting findings; and (6) students learn to cite sources appropriately. This active, learning community-based project relates critically to continuing work in the learning community and helps students begin to construct rather than simply receive information about their work.

"Of Mice and Matter" continues with staged research assignments: preliminary question development; refining the search; using the catalog; using and identifying various types of information in periodicals, from the newspaper to the peer-reviewed journal; searching the Web; website evaluation; annotated bibliographies; and group presentation. In all cases, the research activities are clearly connected to products and discussions fed back into the learning community. If search topics are specified, they connect directly to program content and work.

The organized presence of the CTILAC, with a group photo and links to individual programs and information literacy assignments, provides a good, transparent entry point for faculty seeking work with the librarians and other faculty involved (Bellevue Community College CTILAC, 2003). Once again, initial planning time was important to the creation of this project. In this case, the creation of the CTILAC was made possible through seed money from Bellevue Community College and the support of the National Science Foundation.

"Of Mice and Matter" exemplifies coordinated studies that allow in-depth presentation and use of information literacy issues strongly connected to content and pedagogical expectations of a strong learning community. The higher, more complex goals of learning communities and of the standards for information literacy can best be met in such an environment.

Information Literacy Integrated with Freshman Seminar California State University, Fullerton

Learning communities are evolving creatures. In the examples of linked, credit-bearing, librarian-taught information literacy courses such as those described above, it is not always clear that the library faculty members have the

Learning communities are evolving creatures.

Increasing ethnic diversity
and a large cohort of students
re-entering from community
colleges at an older age
contribute to the call for
deliberate community building
and educational coherence,
whether cultural, generational,
academic, or social.

resources to develop deep connection and integration with the learning communities to which they are attached. In some cases, planning shared research-based integration is supported significantly by the institution; in others, planning depends entirely upon individual personality and initiative, sometimes with major institutional and cultural obstacles to overcome. Student research projects might be linked to their work in their thematic freshman programs, but the instructional content of the linked information literacy course is not necessarily heavily influenced by the linkage. The learning community capacity for focusing research and peer instruction on shared themes is feasible only with time, structure, and commitment to making the linkage.

The information literacy contribution in one Freshman Experience program, the Fullerton First Year, has evolved from a linked, team-taught information/technology literacy course to a model integrated with the gateway course "University 100." UNIV 100 links, in turn, to other courses in the all-year, full-time freshman learning community. This evolution from a credit-bearing program to one subsumed into a gateway course might seem a step backwards from a strong information literacy program. However, inclusion of information literacy in UNIV 100 appears to support a more successful integration of information literacy with the content and research assignments of the learning communities with which it is linked.

In 2001, Suellen Cox and Elizabeth Housewright published an extensive description of the earlier program, an information literacy course for 125-150 first-year students that was part of the Fullerton First Year (FFY) Program. The FFY initiative was designed to respond to the usual concerns about the first-year experience. The Fullerton students, as described by Cox and Housewright, constitute a familiar litany of the challenges to integrating students whose preparation and experiences differ greatly from those of traditional college students: "less than 10 percent of the entire student body is traditional eighteen-year-old first-year students. CSUF is a commuter campus, with the inherent challenges of building a sense of community and maximizing retention rates" (Cox 2001, para. 3). Increasing ethnic diversity and a large cohort of students reentering from community colleges at an older age contribute to the call for deliberate community building and educational coherence, whether cultural, generational, academic, or social.

The FFY program attempted to foster "a stronger sense of community, improve the first-year experience, give students the tools necessary for academic success and increase student retention . . . The FFY program was planned as an academically integrated yearlong experience with a service-learning component that was open to all incoming first-year students by application" (Cox 2001, para. 9). The library instruction component was part of a team-taught, two-unit class entitled "Introduction to Information Technology and Presentation," which involved faculty from the library, computer science, and management science and information systems. This work was further linked to the larger FFY thematic focus. The library instruction context was already rich and well established: "As of Fall 1999, thirteen instruction librarians taught over 300 faculty-requested sessions in most disciplines and at all levels from remedial to

masters' levels" (Cox 2001, para. 7). The course was split between information literacy and other computer and information system instruction. The library component focused on "electronic library resources, the distinction between popular and scholarly resources, interpreting and citing electronic resources, evaluating information on the Web, and electronically requesting books and articles," representing 20 percent of the student work and grade (Cox 2001, para. 12).

Cox and Housewright focus heavily on the student-centered nature of the program and how that commitment evolved. "Most library instruction now includes hands-on practice, student keyboarding [in a laboratory environment], formal in-class exercises, and group work, which reinforce course material and help students develop and apply information competence skills" (Cox 2001 para. 30) Extensive use of reporting back demonstrated the interactive focus of the pedagogy of the work, and the student evaluations became an important part of ongoing class and library service design.

The "Introduction to Information Technology and Presentation" class showed strong interest in student-centered, active learning. Nevertheless, eventually "it was felt there was a disconnect between the library component and the UNIV 100 course, and a lack of meaningful opportunities for students to put their research skills to use. It was also felt that more first-year students were entering with stronger computer skills" (S. Cox, personal communication, February 26. 2003). A year ago, Fullerton First Year evolved somewhat and the two-unit Freshman Seminar (University 100) became a three-unit course. For fall 2002, the information technology course was suspended, and the library instruction team recommended that the UNIV 100 instructional teams plan and implement the library component with the support of the library. Now, a library assignment is incorporated into each UNIV 100 course and students are required to attend a drop-in workshop. University 100 instructional teams can also schedule a customized library instruction session, tailored to the specific research assignment in the class; many of the teams did schedule these customized sessions.

"...[I]n evaluating the merits of this change, it was found that the customized sessions were far more effective and beneficial than the workshops in imparting good library and research skills. This was due in large part to the collaboration between UNIV 100 instructors and the presenting librarians and the targeted nature of a library session constructed around a specific assignment" (S. Cox, personal communication, February 26, 2003).

The new configuration is supported by faculty development activities. "The library supported the instructional teams by providing a workshop for FFY instructors at the annual FFY June retreat . . . planned and presented by [the] Library Instruction Coordinator. She also met and had further consultations with FFY teams at the August Freshman Programs Retreat" (S. Cox, personal communication, February 26, 2003).

As discussed earlier, a well-articulated information literacy curriculum that does not strongly connect to the content, activities, and themes of the program with which it is linked will not be able to support the potential of the learning

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community. The Fullerton First Year revisions have moved the library's instructional model for freshmen from a well-developed information technology class toward an integrated learning community approach. The depth of exposure to information literacy content may be less, but the connection to the student's learning context is stronger. It is undoubtedly the library's already extensive experience with a robust instructional program that enabled successful reconnection with the freshman seminar. A well-established instructional program will also lead instructional librarians to recognize that the first-year experience is not the only opportunity to reach students. As in all successful structures, planning time was an essential part of program planning.

LaGuardia Community College

LaGuardia Community College, mentioned earlier as an exemplary locus of transformative learning communities, offers a variety of fully integrated, learning community programs. As described on the Learning Communities at LaGuardia Community College, City University of New York website, entering liberal arts and science majors choose from a menu of six to eight clusters. These thematically organized clusters include two courses from the core liberal arts and science curriculum plus English composition, The Research Paper, and an integrated hour that is team-taught. Topics for the research paper course are interdisciplinary and based on materials in all the other courses. A developmental cluster, "The New Student House," offers Basic Reading, Basic Writing, or ESL 099, along with a college-level content course and a Freshman Seminar. Both the liberal arts clusters and the "New Student House" represent the complete schedule for incoming students. In addition, a large percentage of LaGuardia's ESL courses are paired with college-level content courses throughout the curriculum. Freshman interest groups consisting of two basic skills courses, a freshman seminar, a college-level course, and a non-credit integrative hour are also offered for entering students. LaGuardia's learning communities reflect a truly integrated practice: each is organized around a theme and faculty meet regularly to plan, refine, and evaluate curriculum integration and student success. All of LaGuardia's longitudinal data indicate that integrated learning is more effective; for example, a ten-year study of pass rates in English 101 shows a 10 percent higher pass rate for students taking this course in clusters.

The English composition course, which is part of each first-year cluster, is "mandated to include one hour of instruction in the library . . . the librarian who will teach the class makes contact with the English instructor to discuss the assignment, topics chosen by the students, what the instructor would like covered, the level of the class, etc. All classes are tailored to the course assignment . . . Some instructors request a second class or a follow-up working session in the Library's electronic classroom" (L. Fluk, personal communication, February 5, 2003).

The mandate does much to ensure that instructors work with the librarians to plan for information literacy instruction. In a large institution, with many entering freshmen students, this model assures global, tailored library instruction, although it guarantees only a small amount of contact time. In an effort to reach

more deeply into connections with class content, LaGuardia is "looking into adding information literacy modules to content courses through pairing and other forms of collaboration with faculty" (L. Fluk, personal communication, February 19, 2003). One tool for handling a large volume of faculty collaboration can be found at the LaGuardia library page where an online form gives faculty members the opportunity to sign up for program-specific instruction. The form acts as a template to instigate detailed thinking about program-specific library instruction: www.lagcc.cuny.edu/library/forms/lmrc.htm. The form replicates, in another format, the content of conversations instructional librarians everywhere conduct frequently and repeatedly in order to ascertain the most effective methods for providing information literacy instruction for particular instructors and classes. Such a form provides an avenue for connection that appeals to one segment of the faculty; other, more personal venues for planning information literacy curriculum are equally important.

Washington State University

Washington State University (WSU) offers strong, unusual, and longstanding Freshman Seminar-based learning communities. A required World Civilization course and a variety of other general education courses are linked to the Freshman Seminar, which is in turn organized around "a research project that students design, conduct, and present under the guidance of the undergraduate Peer Facilitators (PFs) who lead the semiweekly meetings of each section. PFs are sophomores, juniors, and seniors drawn from Freshman Seminar alumni who prepare for their new role in the program by completing an upper-division course in 'peer leadership.'" Graduate students from across the curriculum and undergraduates trained in technology support also assist the PFs. Students work in small teams in technologically rich classrooms focusing on framing research questions, evaluating sources, and portraying findings. Faculty and librarians are coaches. "The final results of this semester-long research process are presented at a 'research symposium' for which students groups must prepare a web-based multimedia project, and answer questions about their research process and product posed by members of the classroom and library faculty" (Johnson, et al., in press). The program is large, serving 400-500 students each year. In 2002-03, forty-five sections with up to fifteen students per section reached approximately 20 percent of the freshman class (S. Walter, personal communication, February 24, 2003).

The WSU Libraries faculty members have provided key support for the development and construction of student projects since the first Freshman Seminars were offered in 1996. The Library Instruction Team, along with a host of WSU reference librarians, have guided students on subjects ranging from the use of the online catalog and evaluating websites to copyright and citation practices on the Web. Librarians have been involved at all phases of project progression, from initial proposals to rubric-driven evaluation.

This project is distinctive in a variety of ways. The use of the web page as the final product is a circle that begins with critical reading and analysis of webbased information and ends with the use of a similar rubric to evaluate the pages Librarians have been involved at all phases of project progression, from initial proposals to rubric-driven evaluation.

The peer facilitators, the librarians, and faculty members teaching the linked content course have the opportunity to advise at multiple points during the project development...

produced by the students. Students are thereby empowered to incorporate the critical processes they have used earlier in the program to become self-reflective in producing and evaluating their own work.

Examples of project websites from http://salc.wsu.edu/Freshman/
FinalProjects show that these are fully integrated learning community group
projects. Interdisciplinary treatments of topics ranging from "Attica: Cause &
Effect on Our Nation" to "Coffee" to "You Are What You Watch" all exemplify
processes that clearly necessitated exploring controversy, grappling with realworld implications, resolving conflicts, and pulling together a range of
conflicting resources and authorities. Some of the results are not terribly
sophisticated; they are clearly student work. On the other hand, they all engage
substantive questions and none simply reports a collection of data or opinions.
The group identity is clear and celebrated in each site.

Web pages are a useful product for an information-literacy project for reasons beyond those suggested above. They serve to connect the learning community discourse to a more clearly public sphere. The public nature of the page is critically important. Unlike student papers, which are not published, or a presentation, which impacts only the immediate audience, students whose work is heading out on the Web know that what they produce may be viewed, read, and critiqued (as they critiqued pages themselves), e-mailed to relatives, and, potentially, used to generate further inquiry and knowledge. The stakes are higher. Additionally, the consonance of the format with the resources and the physical ease of using the Web and multimedia sources make it more likely that students who want to dig deeper than a few, preliminary links or tools will be likely to do so. Students who want to seek further and do more can easily do so.

This research project enterprise and the curricular structure seriously involve the attention of many "master learners." Students identify their own topics, but they also receive significant guidance both from their peer facilitators and from the faculty member whose course is linked with that section of the freshman seminar, assuring that the symposium will feed back into the learning community's thematic content. The peer facilitators, the librarians, and faculty members teaching the linked content course have the opportunity to advise at multiple points during the project development, particularly at the stage of the "content draft," when the Freshman Seminar students provide a first draft of the text that will go onto the website. Walter reports that working to make these advising opportunities more consistent is one of the current aspirations and challenges of the program (S. Walter, personal communication, January 30, 2003).

This advising structure, which links the Freshman Seminar with content course faculty as well as librarians and peer instructors, addresses one of the critical aspects of making a library instruction program a vital part of the learning community. The research model must proactively engage the content of the academic content of the community rather than allowing research topics that are selected by individual students that range outside the focus of the learning community theme. The library provides this opportunity only if the research skills presented are designed as tools for the students to seriously pursue the significant questions of their learning community.

In assessing freshman seminar at Washington State University, Jean Henscheid remarks that "Students in focus groups and interviews report they are learning research skills, how to work with other students, and key concepts for improving their research and writing. Because the students create projects, 78 percent say they are better able to communicate their ideas to others (fall 1998 cohort) . . . 76 percent say they are better able to understand ideas and concepts taught in the course and 79 percent say they are able to exercise their creativity" (Henscheid 1999).

As is the case with most information literacy programs, the WSU program is evolving. Beginning in 2002, the WSU Library Instruction department and Freshman Seminar collaborated to devise "a new collaborative model based on (1) the need to institutionalize an approach to information literacy instruction that could survive any change in program personnel, (2) the desire for librarians to have a greater input into curriculum development, and (3) the interest in instruction librarians providing a greater range of instructional support services to PFs" (Johnson, et al., in press). Each new cohort of PFs now enrolls "in a specially designed section of the libraries' one-credit information literacy course (Gen Ed 300) focus[ing] on preparing students not only to be information literate themselves, but to be effective mentors for their future students in Freshman Seminar" (Johnson, et al., in press). Another aspect of the new initiative is renewed commitment to and structure for communication between the instructional librarians and the Freshman Seminar leaders, with time spent clarifying and sharing instructional objectives. Long-standing misunderstandings about which aspects of the program were taught by whom were identified and addressed, eradicating redundant instruction and conflicting objectives. Ongoing feedback and troubleshooting are now part of the structure of the program, and librarians are more actively engaged in planning the information literacy aspects of the program delivered by the PFs and initial feedback from students and instructors has been positive. As with all learning communities, a significant commitment to structures and time supporting communication and planning is essential for teams to work effectively.

The examples above describe programs in which information literacy and library instruction are integrated with the skills development sector of the first-year experience, but these programs can be thematically structured. The WSU model incorporates both thematic connections and consistent, widespread access through the internship program and the use of librarians as leaders for those interns. The internship program also assures that the student-centered, active learning aspects of the seminar are sustained because the interns are themselves successful graduates of the program.

Librarians as Supporting Team Members

In these next information literacy programs, library instruction and research projects work to serve strongly coordinated freshman-year learning communities, outside or in addition to gateway or freshman seminar programs. These learning communities may be called coordinated studies rather than learning clusters, as defined above. While the role of the library may not be particularly prominent or

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formally strong, the nature of the collaborative work within the learning community provides excellent hospitality for integrated, research-based instruction.

State University of New York—Potsdam

SUNY Potsdam's strategy to deliver consistent information literacy instruction to all first-year students provides formal information literacy learning opportunities embedded in each of the more than twenty learning communities for first-year students. Because of the learning community structure, SUNY Potsdam librarians reach all freshmen and provide at least two sessions with the freshmen with opportunity for follow-up. According to J. Rebecca Thompson, director of libraries, the librarians consider this effort as the foundation level for a developmental information literacy program throughout other levels of the curriculum (personal communication, March 14, 2002).

The "Adirondacks" is an example of one among the more than twenty SUNY Potsdam first-year integrated learning community programs that provide an excellent sense of what a fully integrated coordinated studies can be. As the SUNY Potsdam web page for Environmental Studies states:

The "Adirondacks" offers a complete semester of five courses taught by a team of professors from various disciplines who share a common environmental studies emphasis and use the Adirondack Park region as case study material. The program investigates the artistic and philosophical questions, the scientific problems, and the social controversies that the Adirondack Park creates for its residents and visitors.

The "Adirondacks" enrolls a maximum of fifty first-year (freshman) students who work closely all semester with professors and advisers, advanced students, and each other in frequent team projects, labs, field trips, and studios. It constitutes a complete semester schedule of approximately seventeen credit hours. Because the program stresses coherence and teamwork, it serves students who love the arts but are less confident about studying the sciences, as well as students who love science but are less confident about studying the arts. It is appropriate for undeclared students as well as those interested in SUNY Potsdam's Environmental Science and Environmental Studies minors. Courses in the package change slightly from year to year, but always include the sciences, social sciences, arts, and humanities. The package in fall 2000, for example, featured courses in creative writing, outdoor recreation, anthropology, art history, writing, and environmental geology. Being a complete semester schedule, the program satisfies more than a third of the General Education requirements in an unusually coherent fashion. (www.potsdam.edu/ANTH/ACESintro.html).

Residential First-Year Programs

Some universities and colleges make the first-year program an even more intensive experience through residential programs, which add place of residence

to the list of services and intellectual experiences shared by the learning community. In the programs described below, the information literacy component is embedded in the freshman seminar, but the seminar has greater cohesion due to the residence hall connection.

Saint Lawrence University

As described in the Saint Lawrence University First-Year Program web page, With over fifteen years of experience, the First-Year Program (FYP) at St. Lawrence is one of the oldest living/learning programs for first-year students in the country. In their first semester, students at St. Lawrence live in one of fifteen residential colleges with all of the other students enrolled in their FYP course. The interdisciplinary, team-taught FYP course, one of four courses taken in the first semester, focuses on a topic of broad interest and serves as the introduction to college freshman seminar covering writing, speaking, and research skills. Academic advisers are assigned from the ranks of the faculty members of the residential college. Residential staff and faculty work together to help build a community in which students can develop friendships and succeed academically.

In the spring semester of their first year, students continue to work on developing their communication skills by enrolling in a First-Year Seminar (FYS). Although these seminars are not residence-based, they are small, allowing students to build close relationships with another group of students and with another faculty member. Students who wish to enroll in the seminar taught by their Fall FYP seminar instructor/advisor are guaranteed a spot in this seminar. The spring courses cover a wide range of topics, whether through interdisciplinary or disciplinary study. (www.stlawu.edu/fyp/).

FYP titles for fall 2002 were "Embodying Gender," "Going Native, Going Mad," "Coldest Cold War Flicks," "The Evolution of the American Family," "Reading Contemporary Media," "American Identities," "Our Communities, Ourselves," "The Cultural Construction of Communities," "Fight the Power," "Because It's There," "Sharing the Continent," "Individual and Social Wellness," "Do Androids Dream of Electric Sheep," "Knowing Nature," "Meaning and Language," and "Images of Africa."

Joan Larsen, head of reference and instructional services, describes the library's connection to the FYP (fall) and the FYS (spring): "There is a librarian for the First-Year Program who is an ex officio member of the College Chairs Council. The communications component of the FYP stands on three legs: written communication, oral communication, and research. The Statement of Philosophy and Goals of the FYP Communication Skills Component sets out the basic requirements for syllabi design, insuring that all students, regardless of which first-year college they are in, are held to the same communication goals. The Librarian for the First Year is part of the orientation team for new faculty who are entering the program, helps plan the annual retreat . . . consults with faculty on syllabus design and gives presentations to the seminars and colleges that link library skills needs to the assignments that further the learning of the

... the librarians are actively engaged in first-year program and syllabus design and build upon a traditionally strong collaborative relationship to integrate information literacy instruction with strong

learning communities.

subject of the course" (J. Larsen, personal communication, February 12, 2003).

The assumption that library instruction and library research are central to the curriculum has been embedded in university culture for at least twenty-five years. "There was never any question about the importance of teaching research and evaluation processes to students as an integral part of courses. The librarians were there from the beginning to teach the students and collaborate with the faculty in the design and construction of their courses" (J. Larsen, personal communication, February 12, 2003). Thus, while the library's strong connection with FYP is not obvious in the structure of the curriculum, each FYP goals statement includes an explicit commitment to at least one library-research-based project, and library sessions appear in each syllabus. Instead of providing information literacy instruction in reaction to pre-existing assignments and schedules established by others, the librarians are actively engaged in first-year program and syllabus design and build upon a traditionally strong collaborative relationship to integrate information literacy instruction with strong learning communities.

University of Michigan— Undergraduate Research Opportunity Program in Residence

The learning community model is central to the University of Michigan's range of programs supporting successful transition to college. Several of the programs are residential and the UROP-in-Residence (UIR) thread of the program adds to the residential program the experience of active learning through research partnerships with faculty.

According to the UIR web page:

UIR is designed for first-year and sophomore students. UIR students enroll in a special seminar, Introduction to Research, during the fall term. UIR students are enrolled in all schools and colleges at the University of Michigan and come from across the United States and the world. Students are majoring in everything from biochemistry to global finance, mechanical engineering to art. Their research projects include everything from designing automotive parts to studying animal behavior, examining the ethics of reproductive technologies to considering the representation, art, and media imagery of African American men and women in sports.

In the 1996-97 school year, UROP in Residence was created to offer the benefits of the larger UROP program to a smaller community of students. Today, approximately 130 first-year and sophomore men and women live together on the third floor of Mosher Jordan Hall. Students gain invaluable hands-on research experience and develop critical thinking, problem solving, and analytical skills by being paired with a faculty research partner. Students work an average of six to ten hours per week during the entire academic year on their research project. In April of each year, students are given the option of giving either an oral or poster presentation on their research at the UIR Spring Research Symposium.

UIR students have the opportunity to take special sections of English composition, calculus I and II, inorganic and organic chemistry, and

introductory engineering courses. All UIR students take Introduction to Research in the fall of their first year. The purpose of the course is to provide students with an overview of topics related to research. Course topics include different questions and modes of inquiry researchers use in different academic disciplines; ethical issues such as the use of animals, data ownership, and interpretation; and research skills such as finding and evaluating research-related publications and information.

Students in UIR take leadership in organizing events for the community on the hall. Students write for the UIR newsletter, organize intramural teams, work together on community service projects, and plan social events. Students benefit from living together with peers interested in research. They study and have fun together. UIR is committed to helping first year students make a successful transition into college. (www.umich.edu/~uir)

Three efforts connect the library with this research-based, residential program. First, "Introduction to Research" is required for fall of the first year. Second, the residential aspect of the community is supported by a small branch library within the residence hall, encouraging the integration of research into the shared work of the community. Finally, individual learning communities are clearly linked to a library website (lib.umich.edu/ugl/services/llc/index.html), which identifies the range of library services supporting them.

Thus far, each program described has focused on the freshman-year experience. The remaining programs function within curricula that apply the learning community model to more varied levels of student work, reaching beyond the first year.

General Education Programs

Information literacy standards are appearing among general education standards in many institutions. In some institutions, learning communities are the main model for delivering general education requirements in a socially and intellectually satisfying manner not only during the freshman year but at various stages of student development. Integrating information literacy into such programs, or linking courses to them, generally requires that the institution recognize that information literacy is one important part of the long list of general expectations of all liberally educated graduates.

University of California-Los Angeles: Breaking into the GE Clusters

Sometimes the obstacles to integrated information literacy are not its acceptance as an important aspect of the generally educated person's abilities, but rather where and how to connect instruction about the research process to the general education curriculum. Many librarians are inspired by the "best practices" discourse to infuse information literacy education into learning communities or general education clusters. The following description of a strong general education program includes recent successes in formally connecting the library to that program.

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A distinctive characteristic of learning communities is that the faculty are not only excited about what they teach, but also about learning with and from others with whom they can make intellectual and pedagogical connections.

The UCLA GE Clusters website lists the following 2002-03 GE clusters: "Interracial Dynamics in the American Culture," "Society and Literature," "The History of Modern Thought," "Towards World Economy: The Perils and Promise of Globalization," "Biotechnology and Society," "Evolution of the Cosmos and Life," "Work, Labor and Social Justice in the U.S," "Frontiers in Human Aging: Biomedical, Social and Policy Perspectives."

According to Esther Grassian, information literacy outreach coordinator, UCLA College Library, there is a College Library librarian liaison for each GE cluster. The library creates very expansive websites, some correlated with the weekly content of the cluster (library.ucla.edu/libraries/college/services/ student.htm). The information literacy coordinator makes a general presentation each spring to the cluster teaching assistants for the following year; a general message to all cluster teaching and faculty defines information literacy, the need for it, and ways librarians can help; and sends a list of librarians and their cluster assignments. To follow up, librarians individually contact and offer help to the teaching assistants and faculty. The effectiveness of these efforts was surveyed after the first two years of the program and 60 percent of the students surveyed reported stronger library research skills than when they began the program. Between 32 percent to 38 percent reported them as unchanged (McKinney 2001).

Despite these successes, Grassian reports that the outreach process described above which had been in place since the GE Clusters began, met "with little success in getting [information literacy] 'on their agendas'." Successes included one-shot sessions for discussion sections and seminars for a few GE Clusters" (E. Grassian, personal communication, February 18, 2003).

When in 2002, a new librarian asked if the librarians could attend cluster lectures, requests to some cluster faculty were met with enthusiasm. Grassian has since attended all large lectures for fall and winter quarters in a cluster with an enrollment of 120 freshmen. Finding that she was being called their "Cluster Librarian," she began lobbying for a one-unit informational literacy adjunct course to be linked to their spring seminars, since each student writes a major research paper that represents a large part of the spring grade. The one-unit course has just been approved for spring of 2003. Optional one-unit information literacy courses are designed for science-oriented seminars and for social science-oriented seminars (E. Grassian, personal communication, February 18, 2003).

As seen in this example, engaging in the excitement of the learning community by joining first as a member rather than as a deliverer of curriculum or services can succeed where proselytizing managerial directive does not. A distinctive characteristic of learning communities is that the faculty are not only excited about what they teach, but also about learning with and from others with whom they can make intellectual and pedagogical connections. Thus, the librarian who shows an active interest in what faculty members are teaching in their learning community and who makes the effort to join that work (because there are no passive listeners in a learning community), is in a position to show how his or her work and intellectual interests connect with the content of the learning community explorations. Librarians who show an active interest in the

content of the work of their teaching colleagues are recognized as intelligent and attractive teaching partners. The spark generated by showing such collegial interest is at the very center of the learning community model. Those who show an active and passionate interest in the work and thinking of colleagues and their students are especially effective members of a learning community.

Information Literacy and Learning Communities across the Curriculum

While learning communities have created terrific environments for using the potential of research-based education to work with library instruction, and while library and information literacy instruction has been instrumental to many learning community initiatives, most learning communities address the freshman population and, when learning community models extend beyond the freshman experience, library instruction is a rare or minimal component. There is a possibility that information literacy programs restricted to learning communities at the freshman level will generate or reinforce the idea that information literacy is a simple skill quickly taught at the outset of the college experience. Thus, as with alliances with computer or advising staff, library instruction programs aspiring to substantive interconnection with all levels of academic work may be weakened by expending most of their efforts in learning communities, to the neglect of higher levels of embedded, more discipline-based instruction.

Some institutions, however, apply the learning communities model at all levels. In those colleges and universities, students join learning communities at a wider range of stages in their college career, including communities that address more advanced disciplinary content. Librarians at such institutions have opportunities to incorporate information literacy instruction in a diverse and more discipline-focused set of learning communities.

Portland State University Freshman Inquiry and Beyond

The college-wide University Studies learning communities program at Portland State University (PSU) covers all levels of students. Information literacy is promulgated throughout the freshman class through integration with Freshman Inquiry, an interdisciplinary fifteen-credit program. According to Sarah Beasley, education/social science librarian, "students select a theme/class that continues the whole academic year. The classes are designed and taught by a team consisting of faculty from different disciplines and a librarian . . . We focus on critical thinking demonstrated through the evaluation of resources, identifying appropriate sources to accomplish a task, using the tools necessary to access information, and the synthesizing of information to produce new knowledge . . . (S. Beasley, personal communication, January 23, 2003). A list of recent Freshman Inquiry themes from the Portland State website includes "Chaos and Community," "The Columbia Basin," "Entering the Cyborg Millenium," "Sex, Mind and the Mask," "Faith and Reason," "Metamorphoses," "The Power of Place," and "Meaning and Madness at the Margins."

As members of the Freshman Inquiry teams, librarians confer with faculty and peer mentors to offer sessions that support the content of the particular theme

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Innovations and revisions
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a wider range of learning
community connections,
with greater variation from
introductory to more advanced
disciplinary coverage.

and reflect the learning goals of the instructor. The librarians create websites for each theme that are found on the library instruction section of the library website: lib.pdx.edu/instruction/universitystudiesguides.html#frinq.

"This collaboration increased the level of participation of Inquiry faculty with the library's instruction program. The ultimate goal of the library is to integrate information literacy standards throughout the University Studies program from Freshman Inquiry through Senior Capstone" (S. Beasley, personal communication, January 23, 2003). Because learning communities continue to structure much of the curriculum of PSU after the freshman year, the library integrates instruction in various ways throughout the remainder of the curriculum, with interest in continuing to formally integrate instruction in more levels of learning communities. Extensive program-specific websites for the sophomore year learning communities appear on the library's website along with the freshman inquiry pages. Of particular interest are the websites that include research assignments, so that a blending of the classroom/library instruction roles becomes evident. The University Studies web pages show more sophisticated and specialized tools and strategies at the sophomore-level programs. Each page presents different tools, clearly modified to the context of the individual program.

Indiana University-Purdue University at Indianapolis (IUPUI)

As a fairly recent phenomenon, information literacy programs working deliberately with learning community initiatives seem to be evolving rapidly. As librarians and other faculty develop experience working very heavily with freshman seminars or other gateway learning communities, opportunities develop for integrating information literacy instruction into less generic, more advanced situations. Innovations and revisions often focus on designing a wider range of learning community connections, with greater variation from introductory to more advanced disciplinary coverage. IUPUI represents one of the clearest examples of a major initiative that has developed significantly over the past seven years.

IUPUI began by exploiting the energy, administrative support, and breadth of a very large learning community effort in order to broadly involve library instruction throughout the freshman experience. This effort, well represented in the professional literature and conference presentations, shows significant evolution over time (Evenbeck 1998; Beasley 2000). The 1998 description of the project is inspiring in its attention to "close tutorial relationships" and cites our profession's love of university life in contrast to the cultural stresses that pull our students away from the pleasures of a more contemplative learning community (Evenbeck 1998, 35). With the goal of developing personal, intellectual relationships and introducing students to resources that will lead to falling in love with learning, the librarian is noted as one of the "essential features of such a community" in a project that attempted to develop a learning community on an urban, commuter campus.

In 1996, IUPUI developed a first-year seminar as the central component of the learning community. The first-year seminar included general introduction to the university's resources and opportunities, focus on responsibilities and expectations, an instructional team approach to course development and presentation, and an introduction to the disciplinary structure of higher education. The instructional teams each included faculty members, academic advisors, librarians, student mentors, and technical support staff. By 1998, first-year seminars were offered in all undergraduate schools, or such seminars were under development. At that time, the collaborative work of librarians was described thus: "[Librarians] work with all other members of the instructional team to develop the syllabus for the first-year seminar and to conduct the class, and while they do not typically attend every class meeting, they are regular members of the team and become known, by name, to the students . . . The syllabus includes sessions designed by the librarians, and some sections require multimedia projects . . . All sections include intensive bibliographic instruction . . . "
(Evenbeck 1998, 39).

A description of the program from 2000 reports that "Administratively, the IUPUI Instructional Team program rests within University College. The college offers a one-credit college experience course that is linked with an introductory required course in the major. A departmental faculty member serves on a team with a librarian, a student advisor, a student mentor, and a computer technologist. The course is developed and delivered . . . by the instructional team. The librarian's involvement typically includes both the collaborative activities of course planning and assessment and the conduct of three to four 'interventions' per semester" (Beasley 2000, 52). Soon after this description was published, the library's instructional program was revised.

In May of 2001, the library reorganized to make instructional expectations of librarians more universal. According to Martha McCormick, assistant librarian, there were several reasons for this change: "First, the [learning communities] had continued to grow in number each year [from about twenty-five for ten librarians to more than 100 covered by a smaller instructional staff]. Second, we had been so successful with LCs that we had concentrated a lot of effort on serving that program as it grew but, consequently, our instructional program to courses beyond the first year was spotty and stagnant. Third, we have subject liaisons at IUPUI and liaisons have differing attitudes toward instruction, some being highly motivated and others less so . . . We needed to be able to grow our instructional program" (personal communication, May 14, 2002). "Now the subject librarians are integrated more fully into the library's overall instructional program, including first-year seminars . . . " (personal communication, February 26, 2003).

IUPUI has become more sophisticated and more discipline-focused as a result of reviews of the learning community structure. Based on reviews by faculty and assessment staff, the library plans to reduce overly ambitious learning objectives in the freshman seminar and add more sophistication at more advanced levels. Thus the library is developing its instruction to serve learning communities as the transition to college level but also to provide a consistent secondary layer of linked courses that will connect with introductory discipline-based courses. "The Critical Inquiry course (UCOL U112) is a variable (one to two) credit-hour attachment and designed to be compatible with almost any introductory discipline-based course . . . [S]ections of Critical Inquiry (CI) help

"... involvement with learning communities has been transformational for the librarians."

students learn to read, write, and think critically within a specific discipline and to experience academic success in the linked course. Additionally, students are expected to attain and enhance collegiate reading, thinking, and communications skills transferable to other disciplines" (M. McCormick, personal communication, February 26, 2003). As the instruction program at IUPUI has grown and the library continues to engage more courses beyond the first year, "we can feel more confident that we will have several chances over the course of a student's education" (M. McCormick, personal communication, May 14, 2002).

A clear commitment to a team approach involving librarians remains so that the librarians are major players in curriculum and syllabus planning, as well as in delivery. A faculty fellowship application by McCormick suggests the evolving high expectations for developing the content of this program: "Librarians have extensive experience in instructing students in the use of library databases, but over the last several years our instruction has ranged further and further into more intellectual, analytical, and evaluative critical thinking and information literacy topics" (personal communication, May 14, 2002).

McCormick reports that "involvement with learning communities has been transformational for the librarians. It has really served to turn our service focus outward and has really helped us to learn that our service model can't be one of sitting and waiting for folks to walk into the library. I think we have really grown in terms of our involvement with the life of the campus overall" (personal communication, May 14, 2002).

George Mason University's New Century College

At George Mason University's (GMU) innovative New Century College (NCC), librarians often play a central role team-teaching in the interdisciplinary curriculum at the freshman level and throughout more advanced aspects of the curriculum. A review of the GMU website finds a list of all learning communities that shows a host of programs at all levels, from first year to graduation. For example, 300-level learning communities such as "Violence and Gender" and "Construction and Differences" substitute for two disciplinary courses from a roster of departmental requirements (www.ncc.gmu.edu/descriptions.html).

The Integrative Studies program page (www.ncc.gmu.edu/intsgened.html) describes the first-year learning communities: "Students in Integrative Studies (INTS) join a yearlong learning community, which shares a common curriculum and a faculty team dedicated to working and learning with first-year students."

One of the models is the Transformation Project (http://mason.gmu.edu/~jyoung8/transformation/), a yearlong personal investigation of the relationship between our history as individuals and our histories as members of multiple cultures, societies, and demographic groups designed to support and integrate the work of students in their first-year program of integrative studies, which includes four consecutive eight-credit learning communities (called units):

- "Community of Learners" (NCLEARNING COMMUNITIES 110/Unit I)
- "The Natural World" (NCLEARNING COMMUNITIES 120/Unit II)
- "The Social World" (NCLEARNING COMMUNITIES 130/Unit III)
- "Self as Citizen" (NCLEARNING COMMUNITIES 140/Unit IV)

According to Gallegos (2000, 107), Jim Young, NCC liaison librarian, acts as project manager for the faculty working group that includes faculty in English, composition, biology, public policy, and administration.

For aspects of the NCC curriculum that do not include such intensive models, resource faculty librarians are listed on each syllabus, and the librarians participate within the learning community programs through a series of embedded workshops discussing such topics as library research, source evaluation, the Internet, and technology. Students report that the librarians play a particularly important and appreciated support role in the delivery of a yearlong writing assignment. Librarians also work closely with both the writing across the curriculum and the technology across the curriculum initiatives at New Century (J. Young, personal communication, February 13, 2003).

The Evergreen State College

As mentioned in the earlier discussion of the history of learning communities, Evergreen was designed entirely around coordinated learning communities: full-time, team-taught, inquiry-based, interdisciplinary learning communities, generally referred to as programs rather than classes or courses. This model remains the ideological and structural center for instruction at Evergreen at all levels, from the first year to the graduate level, with the larger, more broadly interdisciplinary teams found more frequently in the first-year (Core) curriculum. All aspects of the college are heavily influenced by the centrality of the learning community model. The library is no exception, where not only the library instructional program, but all services are shaped by a mission to serve learning communities and interdisciplinary studies. As an information literacy and library service program that is unique in the fullness of its integration with learning communities throughout the curriculum, library instruction at Evergreen begs the extensive description below.

The deep and widespread assumption of cross-disciplinary team-teaching linked with serious attention to student-centered and active learning means that the boundaries of these learning communities produce a contradiction. On one hand, the learning communities absorb almost all the social and intellectual energy and attention of the participants, but leave less than normal energy for extra-curricular activities that are not part of the learning community. Learning communities can, in some ways, be very isolated worlds. On the other hand, the walls of the learning community are highly permeable compared to the traditional classroom due to the collaborative imperative and structural flexibilities such as full-time scheduling. Since the entire teaching team usually stays together in the classroom for a significant portion of the teaching time (for most workshops, lectures, movies, all-group discussions, field trips, etc.) and the team has the students full-time, sometimes for the entire year, there is a wealth of time in which to develop program work together. Class time periods are generally two or three hours with mixed formats of lecture, smaller seminar groups, labs, and many all-group discussions. One rarely sees a lecture that does not presume student preparation and significant all-community discussion time. Faculty are very accustomed to ceding teaching time to others and engaging in interchange with staff and faculty from outside their team. A large percentage of

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learning communities engage in field trips and retreats and use guest lectures extensively. The process of moving from a faculty-centered authority to a student- and community-centered structure requires that the faculty member shift from a permanent position in front of the class. Research and service projects become an important part of this process of moving toward student-constructed learning that educates the entire learning community.

All these characteristics make the job of integrating library instruction with the curriculum much simpler. Faculty routinely seek outside collaboration and librarians are some of the most frequently approached. Faculty are also very generous with time to commit to workshops and practica. A long-standing, formal liaison relationship is established, which, simply put, means that the library faculty divide up the curriculum among themselves and contact their programs to offer a wide variety of instructional options.

A unique faculty structure also facilitates collaboration between library faculty and teaching faculty, for status distinctions are quite minimal. A dedication to egalitarian ideals is a critical, central, and deeply held aspect of the Evergreen community. Long-standing practices support that ideal, including radical concepts such as a completely equivalent pay scale across all disciplines (salary is determined strictly by a grid, based on years of teaching-related experience), a move that helps eradicate disciplinary competition and conflict. Similarly, sabbaticals are awarded non-competitively and competitive teaching awards are eschewed. Another practice that supports equity is the practice of staffing many functions across the campus by rotation, most critically, the Academic Dean positions (all at-large positions representing the entire faculty and curriculum rather than disciplines or departments) and the Planning Unit Coordinators (somewhat comparable to department chairs).

One of the prized opportunities to rotate is, perhaps surprisingly, into the library, where teaching faculty may serve as reference librarians for a year. (For earlier discussions of the Evergreen library rotation system see: Hubbard 1990, Huston 1981, 1985, Pedersen 1991, Walter 2000). The reciprocal rotation places library faculty in the curriculum full time, not to replace the specific expertise of the teaching member who has rotated into the library, but rather to serve as one of the pool that delivers the curriculum. Thus, the librarian teaches in the coordinated studies program most suited to his or her abilities and interests. Library faculty status at Evergreen requires that the librarian leave the library and teach one quarter every three years. Library faculty are hired by the all-campus committee that hires all faculty, with the presumption that the librarian will need to be as effective in teaching in learning communities as any other teacher hired. As is the case in hiring all faculty, the hiring committee is very interested in applicants who show significant disciplinary versatility, not primarily as a matter of curricular coverage, but because breadth of disciplinary interest is an indicator of facility as a master learner, an inquiring mind, and a collaborative spirit. Librarians, as discussed earlier, may very well be better prepared for the interactive, collaborative master learner role. Nevertheless, Evergreen library faculty are generally expected to have developed some sort of strong intellectual agenda in addition to library science, consistent with the appreciation for multidisciplinary strength hoped for in all faculty.

As mentioned above, teaching faculty members compete for the opportunity to work in the library, which is regarded as a plum assignment. It provides a change of pace, an opportunity to develop the library collection and services in their areas of interest, and the time and opportunity to become more current with new technologies and resources. Teaching faculty members who serve in the library are generally engaged in the information literacy instructional role as well as in reference service and collection development. They leave the library able to provide significantly improved information literacy instruction themselves, but they also have developed strong collegial alliances and relationships with the librarians to help facilitate collaborative teaching in the future. Another benefit of the rotation has been that faculty working on their own research and publication, a priority for which it is difficult to find time or money at a teaching institution, are often able to use their own projects as vehicles for exploring and updating their own informational literacy. In this manner, library rotation serves yet another aspect of faculty development.

The librarian who leaves the library to join a teaching team enjoys the benefit of an immense boost to his or her intellectual growth under the pressure of preparation for teaching, but also receives, through full-time team-teaching, a tremendous stimulus to general teaching experience and expertise. Team-teaching in a thematic learning community gives the librarian the opportunity to experience the informational literacy agenda from the classroom perspective rather than from the library perspective, and to implement any and all dreams for immersing students in research that is fully articulated with content but also designed and guided by an experienced information wrangler. The librarian returns to the library with a much firmer grasp on what may or may not work well in the types of learning communities developed at Evergreen. The instructional and intellectual self-confidence this rotation generates is a powerful boost to the library's role and services in the college at large.

Library faculty at Evergreen are indistinguishable from other faculty there for a variety of additional and related reasons, such as completely equal responsibility for college governance duties and opportunities, professional leave, and administrative rotations. With issues of status, permeable classroom schedules, many opportunities for interchange with teaching faculty, and an ethic of collaboration, Evergreen librarians have every opportunity to connect their instructional work with the Evergreen learning communities in almost any imaginable structure.

The library faculty field many requests for library instruction and respond idiosyncratically with a wide array of instructional plans based upon the structure and content of the particular learning community. Statistics for fall and winter quarters of 2002-03 show the library instruction program reaching more than 1,700 students at all levels, or more than 40 percent of the student headcount of the college. This teaching was done within the context of about fifty different learning communities. This teaching came in many packages and with various degrees of integration. There is no shared, agreed upon curriculum, little consistency in teaching methods, and limited communication among the librarians about their teaching plans for information instruction within programs, other than essential negotiations regarding teaching facilities and coverage.

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This is consistent with the larger Evergreen curriculum. Faculty autonomy is held dear, yet within teaching teams everything about a program is negotiated. Programs are often created from scratch each year, or even each quarter, with greater consistency and repetition in some parts of the curriculum and greater flexibility in others. The ability to develop a true learning community, where students are honestly expected to gain authority, depends upon the ability of the teaching team to respond to the moment, to the mix, to the character of the community, as well as to planned thematic focus. Thus, librarians focus their information literacy instruction conversations on the specific learning community and teaching-team for which they are developing instruction.

The distinctive and quite organic nature of learning communities is best served by library instruction specific to the immediate context of the program. Extensive negotiation, planning, and discussion between the program librarian and at least one member of the teaching team are common. Programs best served by a highly integrated and embedded approach require that the library and teaching faculty meet and discuss program themes, strategies, and rhythms early, possibly during one of the summer planning sessions when some teams take advantage of paid planning time. More often, planning will occur in a rush during the week or two before classes start as teams meet for hours every day fleshing out their earlier, vague dreams and agreements into the body of the syllabus. At that point, specific assignments are being designed and scheduled, and teams will often set up appointments with "their" librarian to establish a series of library-based assignments or one or two workshops to support a specific research project.

In terms of actual instructional literacy teaching in learning communities at Evergreen, at one end of the spectrum, a library faculty member whose teaching and library experience is strong in both science and rhetoric has repeatedly worked with chemistry programs to provide an embedded four-credit scientific writing workshop. In this case, the integrated and staged model, so desired by many library instruction programs, is not only given the time to unfold, but is deeply connected to the required content of the program. The distinctive nature of scientific writing, the deeply held presumptions of scientific discourse, and the resulting characteristics of the scientific library research tools are thus taught in an integrated fashion with several hours of face-to-face teaching each week of the quarter. The librarian, who also teaches writing during summer school, not only provides the research and writing instruction to the chemistry students, but also reads and evaluates the students' research and writing work. The librarian's evaluation of the work is incorporated by the teaching faculty into her overall narrative evaluation of the student's achievements for the quarter.

On the other end of the spectrum, each instructional librarian struggles with more requests for library instruction than can be carefully and extensively designed in the time allowed, and will then tend to default to the one-time workshop. As a result, they will often respond to the request for a "tour" (a surprisingly long-lasting vestigial concept) with a workshop that presents (often with a combination of digital classroom projection and some physical orientation to the building, depending upon the level of the class) program content-relevant tools and searching techniques. With a three-hour time segment and access to a

teaching laboratory, it is possible to present small segments of class-specific instruction about a few tools, ask students to begin their search for materials, allow some time for that work, work from feedback on that process, and then continue to the next group of tools, level of sophistication and/or divergent format.

In other models, multiple interactions between the librarian and a program are common. For example, in fall of 2002, a new cohort of Master in Teaching (MIT) students began introductory work on question development for their master research projects. The MIT teaching team of three faculty (anthropology, psychology, and communication) appointed one, very enthusiastic team member to work with the librarians to design multiple labs for research instruction and question development in order to set the stage for the projects. Five evening laboratory sessions of three hours each gave time for both instruction and practice. The entire teaching team was present to support and facilitate the process so that questions of research technique and content or question development were not artificially postponed or avoided. With all members of a team attending all program activities, research instruction sessions are not only richer and more efficient (in terms of student gain), but the sessions have a much higher profile; students begin to see the emphasis the faculty place on good research before, rather than after, they have done their research. In addition, the faculty who will be the primary supervisors for the projects, know what the students should be able to do in terms of library research methods.

In each of the five sessions, the lead faculty member introduced the librarian's presentation by describing and emphasizing the importance of each stage of work that was to be initiated that evening. The librarian then demonstrated the search or tool and the students, who had already gone through a preliminary exercise to begin to define their research topics, tried out the sources and then worked to locate relevant publications representing an array of genres. The first session covered research logs, general web searching, and web evaluation. The next three sessions used *ERIC*, *Sociological Abstracts*, and *Psychological Abstracts* to locate first literature reviews, then empirical studies, then case studies. In the final session, the government documents specialist covered government documents. While the students were assigned the task of locating three to five titles each week from each genre, this was not a treasure hunt. The faculty carefully suggested how students should then converse with the sources they found, as the following excerpt from the research assignment describes:

Synthesize, Reflect, And Generate Questions In Weekly Assignments EACH WEEK, reflect on what you are learning about your area of terest that would help inform your teaching practice by answering ea

interest that would help inform your teaching practice by answering each of the following in your research journal:

- What have you learned about your area of interest from the research you conducted this week?
- Take a crack at posing some research questions that you could pursue.
- Identify one or two of these questions that matter to

- *you.* How would researching these questions help to inform your teaching practice?
- What assumptions about your area of interest are you becoming aware of (both your own and in the research)? For example, in Sonja's area of research on motivation she held a common assumption about the impact of rewards on motivation. For this part of the reflection, she might write:

"I notice that I am assuming that rewards will necessarily undermine people's intrinsic motivation. That may not be the case. Why do I assume that to be case? . . . what kind of information will I need to test this assumption? . . . Perhaps next week I could conduct some research that will help me to put my assumption to the test. Is there any research out there that shows that rewards actually support someone's internal drive to work?"

As in many libraries, working the reference desk at Evergreen serves as an informal way to reinforce and evaluate instructional efforts. At the desk, instructional librarians become reference librarians again and have the opportunity to see what happens as students try to apply what is taught. Interestingly, this thoughtful MIT process, which seemed so rich from the perspective of the classroom, sometimes appeared nonsensical at the reference desk as students followed up on their work. Some librarians regarded this as yet another scavenger hunt or laundry list ("My teacher says I need three of these and five of those . . . "). Despite the importance the faculty had placed on evaluating resources and using them to raise questions for further research, a few students became mired in the process of locating the required sources and thus focused their energy on the procuring phase of their research. The dual role, as instructor and as reference librarian, helps the librarian see and evaluate several aspects of the information literacy development process.

The mixing of roles, when extended to the classroom faculty, who in this case thought very seriously about how the research process could be taught and facilitated, led to valuable follow-up. The MIT faculty members were working consistently with the students in groups and individually to help move through stages of grappling with the search and the question development process, so that the students ended the quarter well prepared to launch into their projects. This process was in marked difference to programs in which faculty members assume that students already have basic research skills, schedule only minimal library instruction, if any, and then try to make up for lost time when they receive work that shows the limitations in the students' research skills.

As noted in the discussion of learning communities at Evergreen in general, college-wide conversation can suffer as everyone becomes absorbed into his or her learning community. Within the library, the librarians are frequently more absorbed by their teaching and working relationships with colleagues outside the library than those within. This can cause hardships and misunderstanding as parallel work patterns develop. One opportunity to overcome such separation is to occasionally form teams within the library to design and teach coordinated studies programs. Occasionally, several librarians have joined with the rotating teaching faculty in the library and media specialists (who are administratively part of the library staff and adjunct faculty) to offer programs that substantively

explore the nature, use, and societal implications of the emerging information technology. In addition to reading a variety of books on the changing nature of information and the post-modern condition of knowledge in the context of technological changes, students did hands-on work with multimedia technology and web publishing. Other aspects of the programs considered questions of aesthetics, rhetoric, and intellectual property.

Library instruction, then, is highly diverse at Evergreen. There is no effort to regularize which curricula will be covered, or that a certain structure will be preferred. The structures and ethos of the college are the fundamental bases for the successful engagement of the library in the curriculum of the college. Universal or pre-designed library instruction models simply would not work for Evergreen's faculty or students. Each librarian has his or her own favored ways to interact with the faculty and to teach library instruction and each librarian manipulates that methodology to suit different programs. Librarians may even learn about their library colleagues' practices from working with other teaching faculty, rather than directly from one another. This anarchy seems the most effective way to work within a larger campus environment that functions in a manner which is highly varied and constantly changing.

In all higher education institutions, the most productive way of spreading the word and work of information literacy instruction may be faculty development. Forward thinking institutions recognize that we stand at a crucial threshold, with nearly half of the nation's faculty retiring, and are investing carefully in reaching and acculturating the new generation. The faculty cohort hired in the early 1990s that now represents nearly one-third of the total current faculty, differs substantially from prior generations in demographic characteristics, but not in teaching style (Finkelstein, et al. 1998). Lecture remains the dominant approach. Deliberate support for pedagogical methods relevant to the learning community model is still needed and librarians should be part of that effort.

Faculty Development and Information Literacy in Learning Communities

Librarians in some institutions have led faculty development programs that provide good models. An inter-institutional team of librarians from Mt. Holyoke and Bryn Mawr has offered a summer workshop on discipline-focused information fluency for teams of faculty members, librarians, instructional technologists, and rising juniors from nine liberal arts colleges. At Evergreen, faculty workshops lasting from a week to ten days have been designed and taught by large teams of librarians, computer staff, and media specialists for more than five summers.

Many institutions with large learning community curricula depend upon faculty rotation in and out of the learning community programs and in and among specific learning communities within the program. As teams teach one another, that teaching is disbursed as teachers move about. Many programs include significant, and essential, planning time, which is often devoted to conversations that generate intellectual and pedogogical development. The learning communities themselves tend to attract energetic, open-minded, inquiring faculty who seek new ideas and actively pass them on. As noted by

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Esther Grassian from her experience "inside" the GE Clusters at UCLA:

I think these Clusters are incredibly wonderful. They're all
multidisciplinary, on a wide range of fascinating topics, with three to
four faculty drawn from different disciplines. The GE80 faculty, for
example, are from the School of Medicine (an immunologist), Public
Health, and Social Welfare/Public Policy. They go to incredible lengths
to try to make the students feel like a community, almost a family.
They're very interested in incorporating new and different approaches,
including service learning and a writing requirement, and now,
information literacy. They've had ice cream socials and even will have
the class design its own T-shirt. They're also very attentive to and
supportive of the three TAs, providing each some lecture time and
they're very supportive of each other. I feel very fortunate to be able to
work with them, as they're quite a remarkable group of people. (personal
communication, February 8, 2003)

As information literacy is a high priority in an increasing number of higher education institutions, the strongest tool for faculty development in that arena may be the integration of librarians into teaching teams. Any learning community program which depends upon rotation of faculty members could do more than involve librarians as support or planning staff; library faculty could rotate in and out of the teaching program and teaching faculty could rotate in and out of the library. Evergreen's library faculty rotation, which does so much to integrate information literacy into the curriculum and teaching interests into the library, once seemed inappropriate for replication elsewhere. Now that learning communities are more common and pools of faculty are used to staff such interdisciplinary curricular efforts, rotation could be an effective professional and structural relationship between librarians and other teaching faculty members for many institutions.

Next Steps

Learning communities are at a crossroads. While the idea is widespread, the quality of the effort varies widely. On some campuses, learning communities are little more than block registration opportunities. The most powerful learning communities offer multidisciplinary perspectives, extensive opportunities for active learning, and multiple sources of instructional leadership.

Libraries are in a fertile period of change. Librarians are forging many different kinds of partnerships—by establishing new physical structures and relationships through information commons like the one at the University of Arizona, through cross institution initiatives in such areas as technology like the UWIRED project at the University of Washington, through collaborations with writing and teaching and learning centers, and through partnerships with media and computing services. Learning communities represent one of the most promising avenues for collaboration for libraries because they offer such a broad and substantive platform for implementing inquiry-based reform efforts. Especially in today's complex world of information, librarians have unique skills to bring to the learning community effort.

It is time to bring learning communities and the information literacy communities closer together as natural partners. Learning communities that work for students and faculty can work on a much more ambitious scale for librarians. Learning communities can productively change the relationship between the library and the curriculum, the library and the faculty, and the library and students. In their most sophisticated forms, learning communities provide the natural context for building the substantive, integrated, sophisticated information literacy that our students need. They provide the time, the collaborative ethos, and the structures to do this effectively.

Librarians are already working in learning communities in many different ways. Some of these models are deep, some shallow. In many institutions, especially those with a very small cadre of professional librarians, librarians engage in learning communities episodically, as individual interest and energy allow. In other institutions, the relationships are more systemic and enduring. Usually when library involvement is consistent, it reflects a more comprehensive institutional perspective and deeper goals, along with a set of commitments that are reflected in institutional policies.

Greater library involvement in learning communities requires rethinking role and reward systems and issues of institutional mission. This rethinking raises multiple questions. Do institutions of higher learning really want to be more inclusive communities? Are they capable of rising above long-standing and obsolete status issues? Yet, any institution seriously considering learning communities is already engaged in overcoming long-standing assumptions about the autonomy of the professor, the relative merit of specialization versus integration, and the centrality of traditional teaching methods. For the teaching faculty, deeply coordinated, inquiry-based, interdivisional team-teaching requires risk-taking, initiative, and experimentation. For the librarian, entering the learning community requires crossing boundaries in a number of additional ways. For both, the rewards can be greater engagement, satisfaction, and efficacy. In order to embrace the potential of the learning community, to learn to work with students and one another, librarians as well as teaching faculty must leave the comfort of professional specialization, come out from behind the podium or reference desk, and engage the complex, democratic discourse that characterizes contemporary knowledge.

It may not be comfortable, but it is home.

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