Appendices
## Appendix A
### Summary Matrix of Dissertations, Theses, and Single-Institution Research Studies

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<th>Learning Gains</th>
<th>Intellectual Development</th>
<th>Faculty and Administrator Response to LC</th>
<th>Program Implementation</th>
<th>Student Perceptions of LC Role and Value</th>
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### Primary Area of Curricular Focus
- **Other**
- **Major**
- **Developmental Education**
- **Freshman**
- **Generation Education**
- **Community College**

### Other Information
- **DATE**
- **AUTHOR**
- **PRELIMINARY STUDIES**

### Methodology
- **Focus Group/Interviews**
- **Tests/Exams/Other**
- **Student Work (e.g., portfolios, etc.)**
- **Locally—designed Instrument or Survey**
- **Commercially—available Instrument or Survey**
- **GP/Research Papers**
- **Retention Rates**

### Evidence of Impact
- **Persistence**
- **Academic Success**
- **Learning Gains**
- **Intellectual Development**
- **Faculty and Administrator Response to LC**
- **Program Implementation**
- **Student Perceptions of LC Role and Value**

### Learning Community, Dissertations, Theses, and Single-Institution Research Studies
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Appendix B
Annotated Bibliography of Learning Community Dissertations, Theses, and Single-Institution Research Studies

Note: Some dissertations below used the protocol of giving the college or university a fictitious name. The annotations below, institutional names are mentioned only where the researcher named the actual institution in his or her study.

Freshman Interest Groups (FIGS)

FIGS are generally course clusters in which the instructors do not coordinate syllabi or build academic connections among classes. Each FIG cohort group meets once or more each week with a FIG leader—an older student, a student affairs professional, a faculty member, or some combination of these—to build community and receive orientation to university services.

Anne S. Goodsell sought to understand from the students’ point of view how participation in Freshman Interest Groups that included writing links (larger, content courses linked with a smaller writing class) influenced students’ learning experiences, and how those learning experiences fit in with their broader experiences as first-year students. Through interviews with 24 students at a doctoral institution, she learned that much of the influence of the FIGS was in the realm of social relationships between students and their peers; social relationships formed the social context within which learning occurred. Students stated that lectures treated a classroom atmosphere of alienation, distance, and detachment. By contrast, students felt more peer pressure to attend the smaller, linked writing classes. Students were much more likely to talk about their social interactions with their peers, faculty, and Peer Advisors, and the connections to their learning, than they were to talk about the academic content of the classes.

Claire Sullivan examined differences in satisfaction with supportive communication interactions and in college adjustment between Freshman Interest Group participants and non-participants in the first academic quarter of freshman year. She administered the Student Adaptation to College Questionnaire to assess students’ perceptions of supportive communication between students and faculty and among the students themselves. FIG participants generally were more satisfied than their non-FIG peers both with support received from their classmates and with supportive interactions with faculty members. There were no significant differences in overall college adjustment between the two groups. A post-hoc analysis of course withdrawals revealed that FIG classes experienced fewer course withdrawals.

Clustered or Linked Learning Communities

Students in clustered or linked programs enroll in two or more classes where the instructors collaborate to varying degrees on building community and fostering academic connections among the classes.
Beth Chonko analyzed the impact of learning communities and university orientation 101 on first-year student involvement, satisfaction, achievement, and retention at The University of Akron by comparing students in a clustered learning community, in University Orientation 101, and in a control group. Despite significant differences in previous academic achievement among the three groups, with the control groups having the highest mean high school GPA and ACT scores, and the learning community group the lowest, no significant differences existed in areas related to student involvement, achievement, and retention.

James E. Minkler analyzed the effectiveness of linked, paired, and coordinated studies learning communities versus stand-alone courses taught by the same instructor, using causal-comparative and qualitative methods. He collected data from students and faculty at two community colleges, Spokane Falls Community College and North Idaho College. Quantitative analyses of academic performance, withdrawal rates, and satisfaction showed mixed results. In 34 paired comparisons of classes with students in learning community vs. stand-alone courses taught by the same instructor, only nine comparisons of academic performance showed statistically significant differences; in those cases, students in stand-alone classes earned higher final grades than students in learning community classes. Withdrawal rates were lower in stand-alone classes than in learning community classes. A survey of 222 students in learning community classes revealed that they rated their learning community experiences as superior to that of stand-alone courses. Focus groups with 29 students who had experienced team-taught learning communities and interviews with 10 faculty provided evidence that both students and instructors thought learning communities provided a sense of community that resulted in better learning opportunities compared to stand-alone classes of the same course. Access to instructors, relevance of writing assignments, more time to discuss topics in depth, working in small groups, and interdisciplinary connections were some of the advantages cited. Peer interaction, both student-to-student and instructor-to-instructor, was perceived to benefit students, particularly when faculty engaged in dialogue with each other to model scholastic inquiry. Students expressed concern about content coverage in learning communities (they thought they got more content in stand-alone courses), scheduling, joint grading of assignments that counted for more than one course in the learning community, grading of group work, and student workload. All instructors agreed that the advantages to teaching in a learning community far outweighed the disadvantages. Ten advantages that the faculty mentioned repeatedly were accountability to their peers that forced them to be more prepared; content coverage, particularly when linking skills and content-based courses; flexibility to modify curriculum and schedules; enjoyment; interdisciplinary connections; better learning for students; peer interaction; personality fit to work collaboratively as a team; professional development, particularly through observing other instructors teach; and team teaching. Disadvantages cited included accountability, administrative support, content coverage, grading, time commitment, and personality fit.
Cynthia Peterka described students’ social, academic and learning experiences in a clustered learning community program at the University of Maryland College Park. The enhanced, Freshman Interest Group-like structure consisted of two to three courses linked thematically, with an interdisciplinary seminar designed to help students integrate their learning. The seminar was taught by faculty or advanced graduate students. Peterka chose to study two of the “best” or most successful clusters and two of the “worst” or most problematic clusters, based on student and faculty evaluations from the previous year. Generally, students reported positive outcomes that they attributed to the learning community, including being challenged to think critically, and to make connections across courses and with their personal experiences.

Gilda Ramirez documented the experiences of faculty and students participating in a First Year Experience (FYE) at Texas A & M University-Corpus Christi. This institution required two semesters of learning communities for its entering students, each one containing two general education lecture classes, a writing class and a freshman seminar. Ramirez conducted a case study involving classroom observations; observations at faculty planning meetings; individual interviews with students, instructors, and faculty; content analysis of course syllabi, assignments, and student portfolios. She also tracked student persistence and retention of the fall 2001 entering class; there was a 99.8% completion rate (967 out of 970 students) for the fall 2001 semester, and a 86.8% retention rate to spring 2002 semester. Interviews with faculty revealed their pioneering spirit with an ambitious curricular reform initiative involving general education classes and the teaching of writing in a thematic context; they also revealed the frustrations associated with an underfunded and sometimes unappreciated and demanding teaching environment, the changing expectations from the Texas Higher Education Coordinating Board, and the challenges of building and sustaining large teaching teams. Ramirez’s interviews also revealed the disconnect felt by both teachers and students between a public school training that emphasized high-stakes testing and a college learning environment that asked students to express and develop their own ideas. Ramirez also made several recommendations for strengthening the learning community effort.

Arianne Walker examined the impact of yearlong, clustered learning communities on student outcomes measures that reflected the educational development of highly prepared first-year students at the University of California, Los Angeles. The learning community structure for the first two quarters of the freshman year consisted of team-taught, interdisciplinary lectures delivered to large groups, followed by discussion sections of 15 to 25 students. In the third quarter, small, related seminars were taught by a faculty member or graduate student involved in the clusters. Using data collected from the Student Information Form created by the Cooperative Institutional Research Program (CIRP) and the follow-up College Student Survey, Walker analyzed the effects of learning community participation on 18 student outcome measures. She found that participation in learning communities was positive and significantly associated with nine of the 18 student outcomes. Learning community students
more than non-learning community students self-reported more growth in critical thinking, analytical thinking/problem solving, reading skills, and writing skills; reported greater frequency working on group projects, taking interdisciplinary courses, enrolling in seminars and discussing course content with other students; and were more likely to agree with the perception that faculty provide intellectual stimulation and challenge.

Lori Walker-Guyer described the impact of a “systemic,” yearlong, learning community for first-year students at California State University from the perspective of the participating students and faculty. Studied in the first year it was offered, the learning community constituted the students’ entire unit of instruction. Students enrolled in a cluster of courses each semester, including four general education courses and an “Introduction to University Studies” seminar team taught by an academic faculty member, a student affairs educator, and two peer mentors. A strong co-curricular component included 30 hours of service-learning, among other requirements. Although faculty teaching the learning community did not take an interdisciplinary approach, they coordinated syllabi and built the program theme into the content of their individual courses. They also deliberately incorporated active learning strategies and took into consideration student development theory to help them determine the sequence of curriculum. Through focus group interviews of students, written responses to a questionnaire completed by faculty, and a quantitative analysis of academic success and persistence, Walker-Guyer drew the following conclusions. In comparison to a control group, students in the systemic learning community persisted more, although the differences were not statistically significant. They experienced significantly higher first-semester grade point averages, and were significantly more likely to be in good academic standing both at the end of the first and second semesters. Walker-Guyer also reported three consistent themes that described both students’ and faculty members’ experiences of the learning community: symbiosis of social connections and learning (e.g., learning through social connections), embracing of new paradigms of learning (that put students at the center of learning, and change the faculty member’s role from instructor to facilitator), and the development of a systemic world perspective (seeing the world as a system of interrelated connections).

Karen Zunkel studied the impact that participation in linked-course learning communities at Iowa State University had upon undeclared engineering freshmen during the first year they were offered in engineering. The learning communities consisted of a math course, an orientation seminar taught by the undeclared engineering advisors, and a weekly cooperative learning session facilitated by a peer mentor that was designed to develop interactive social skills. There were no significant differences in GPAs between the learning community and comparison groups for grades earned in math courses fall semester or for grades earned cumulatively in the first year. Students’ confidence in their self-efficacy generally declined for both groups over the year; participation in the learning community did not lessen the decline in self-efficacy, commitment, confidence, or outcome expectations. At the end of one year, students in learning communities were
retained in engineering at higher rates; however, no predictive relationship could be substantiated.

**Coordinated Studies**

Generally, coordinated studies are team-taught, fully-integrated offerings that comprise two to four courses. Some but not all are organized around interdisciplinary themes. These learning communities are usually regarded as the most ambitious learning community curricular structure.

**Ray Levell Belton** sought to determine, from the students’ point of view, how participation in a four-class, team-taught, interdisciplinary coordinated studies program influenced learning, and to what degree specific characteristics of the program shaped such experiences for community college students at Brookhaven College. Based on 21 individual student interviews, he identified five categories of learning influences: a holistic academic environment that involved students in experiential learning; gaining a voice, or assuming greater ownership of learning; acquisition of meaningful learning experiences that could constitute life-long learning; personal development, including a renewed sense of appreciation for other viewpoints; and discovery of intrinsic motivations, including a sense of connectedness with the college and an appreciation for the opportunity to engage in community service activities as part of the class. Belton also conducted a focus group interview with nine students to assess the learning community variables most influential in shaping student learning experiences. Students emphasized opportunities for autonomy and leadership, opportunities to learn about and with a diverse group of students, experiential learning activities, the lack of examinations, and teacher interaction, among other themes.

**Patricia Russo** interviewed 70 community college students enrolled in four different team-taught, interdisciplinary, coordinated studies learning communities to learn how the students made meaning of being students, of learning, and of knowing something. Typical coordinated studies class activities included weekly seminars, regular group project assignments, daily in-class small group discussions, and midterm and final self-evaluations. Russo identified four themes that emerged from students’ descriptions of their learning community experience, themes that formed an “interlocking bond compelling students to be actively involved”: interdisciplinary teaching, program continuity, peer support, and student diversity. She framed her findings around several key struggles that students faced: struggles to get themselves to college, struggles to succeed in courses, and struggles to develop an understanding of learning that incorporated the knowledge they brought to college with them (26). Students credited their coordinated studies program for helping them negotiate obstacles to attend college; for compelling them to actively participate in class and in their learning; for challenging their assumptions of the learning process and for encouraging them to embrace new ideas about how knowledge is constructed; and for helping them make connections between their out-of-college lives and their college experiences, across disciplines, and with peers. She concluded that the pedagogy
of coordinated studies programs has the potential to change ways students think of themselves as students and ways they think about learning.

Margaret Tennant investigated and charted the qualitatively different ways that students understood their experience in a community college two-class, team-taught interdisciplinary learning community, using a phenomenographical framework and methodology. A phenomenographic approach explores differences in understanding or conceptions of a situation and then hierarchically maps the range of the perceptions into interrelated categories. The purpose is to create a meaningful structural model applicable across individuals. Based on her analysis of interviews with 16 students, Tennant grouped student perceptions into five categories, each reflecting a different perception of four learning community dimensions (structure and setting, peer interaction, instructor involvement, curricular connections). Tennant proposed that understanding the qualitatively different categories of student response to learning communities could help instructors better design learning experiences that would help students conceptualize the learning community at the highest level possible.

Learning Communities for Underprepared Students

Susanna Kay Horn interviewed 20 underprepared students who took part in a one-semester learning community of linked developmental courses to discern the role the learning community program played in their continuing enrollment. Students had completed the learning community at least one year prior to being interviewed. Students credited the learning community experience with helping them adjust to college by aiding the formation of personal connections with students and faculty and by helping them develop skills necessary for future college work. But Horn concluded that for profoundly underprepared students, one semester in a supportive learning environment was not sufficient in enabling them to acculturate to the expectations of college learning.

Linda Hamman Moore compared against a control group the academic performance, personal adjustment, and persistence/retention of students enrolled in a coordinated studies learning community designed for underprepared students at Parkland College, a community college in Illinois. Four three-credit classes, including developmental and college-level general education courses, were team-taught by three or four instructors, depending upon the semester. Learning community students tended to earn more credit hours, enroll in subsequent semesters at higher rates, and attempt more credit hours during those subsequent semesters than their comparison groups. Reading levels of students in the learning communities improved dramatically compared with the lowest-scoring students in the regular developmental classes. Learning community students advanced to college-level writing classes at higher rates than similar students in the regular developmental writing classes. When asked to compare their experiences at the college with earlier educational experiences, significant differences between learning community students and those in the comparison group were found on four items. Learning community students were more likely
to say they got to know their classmates better, people of different backgrounds and races got along better, and classmates were more likely to help them with school work. They were less likely to say they earned poorer grades. Faculty perspectives of the learning community were collected through written responses and interviews with the eight instructors. Faculty showed strong interest in continuing to teach in the learning community. When asked on a survey to compare their teaching experiences in the learning community with previous teaching experiences at the same college, significant differences were found on five of the 16 items. Faculty reported that they spent more time integrating course content with other disciplines, spent more time thinking about other disciplines, learned more from their colleagues, felt more important in the “big picture” of the college, and observed their students doing more collaborative work.

Jane Weber examined the attitudes and perceptions of students, faculty, and administrators involved in two community college learning communities designed for underprepared students. One learning community included two linked, developmental courses; the other included a cluster of two developmental courses and a general education course—both being offered for the first time. Through surveys, written narratives, and focus groups, Weber discovered that students were generally unclear what a learning community was when they enrolled, but by the end of the term thought the learning community had had a positive influence on their attitude toward school. The five faculty members stressed the value of colleague interaction in revitalizing their teaching, although that interaction was informal and irregular. The six mid-level administrators thought learning communities provided students with a sense of community and would ultimately aid retention. One common theme across all three groups was the value of relationships with peers and faculty.

Living/Learning Learning Communities

Generally, living/learning programs house students together in a common residence hall and engage them in some academic work (usually courses) as well.

Mimi Benjamin examined how residential learning community peer mentors at Iowa State University constructed and enacted their roles and how they changed and what they learned by serving as peer mentors. The residential learning community peer mentor role is a relatively new one in higher education, and students who serve in this role often rely on themselves and each other to learn how to be role models for effective students, foster community development within the learning community, and assist with educational programming in the learning community. Benjamin used Astin’s student involvement theory and Bandura’s social learning theory as theoretical frameworks for this study. She reported that peer mentors used combinations of information sources for constructing and enacting their roles: written job descriptions and a Peer Mentor Handbook, their observations of previous peer mentors; their own beliefs about
what a role model should do and be; and information gathered by informally assessing their student group. “‘Trial and error’ was frequently cited as a primary way by which peer mentors learned their responsibilities and how to be most effective. ‘Error’ was not necessarily considered negative but served an informative purpose for peer mentors and their future actions. Peer mentors stated that training was useful to the extent that it could be, but that ultimately their role construction/enactment was more influenced by experience than by training” (160). Benjamin also learned that the gains for peer mentors were mostly interpersonal, including improved skills in areas of communication, leadership, and observation. Peer mentors generally stated that they gained leadership skills through their role. All types of peer mentors mentioned that they learned more about related academic majors or programs within their disciplines as a result of being peer mentors. “Peer mentors cited an increased self-efficacy that seemed to surprise them, and they also learned about flexibility and dealing with situations over which they had no control. In learning about groups, peer mentors discussed their development of varied approaches to use with students as well as their new awareness of individual learning differences” (141). Benjamin concluded her dissertation with several recommendations for strengthening the peer mentor program at Iowa State University.

Diann Lynn Burright explored what factors enhanced learning and connections for 11 students enrolled in the College of Business and living within the same residence hall at Iowa State University. She also looked at what helped them successfully navigate their first year at college. In their first semester, students took two linked English/business math courses and an eight-week business orientation course. A peer mentor was assigned to the residence hall. The learning community helped students get to know each other socially, study together, and realize the importance of involvement (e.g., making an effort to participate).

Kurt Earnest examined how achievement and retention rates of first-year, first-generation college students enrolled in three types of learning communities at Iowa State University (residential and course-based learning community, course-based-only learning community, and residential-only learning community) were impacted by their participation. Neither learning community enrollment nor first-generation status predicted first semester, second semester, or first year GPAs; nor did he find differences in GPA between first-generation and second-generation students. The learning community type did not significantly predict the retention rates of first-generation students. ACT Composite scores were stronger predictors of mean GPA than were first-generation status or learning community enrollment.

Jean Henscheid examined the results of a policy that placed college residential learning community freshmen in living-learning centers to determine what specifically about those conditions motivated the students to interact around academic subjects. Five conditions emerged as impacting the actions of the
residential learning community students: (1) conditions in the residence halls, (2) attributes of college freshmen, (3) nature of entry-level college courses, (4) attributes of paraprofessionals, and (5) nature of freshman orientation courses. She concluded that freshmen in residential learning communities housed inside freshman living-learning centers were not motivated to interact around academic subjects. Conditions created by the college policy prevented this interaction, e.g., high-rise residence halls were noisy and fun; freshmen were inexperienced at collective studying and concerned about making friends; entry-level courses dictated independent academic work; peer advisor role models generally considered studying a solo enterprise; and the freshman orientation course suggested strategies for working on academic subjects alone.

Leslie Ann Roberts explored the experiences of community college students and faculty in the Eco-Urban Year Honors Program living/learning community at an urban community college. Students lived together in apartments at a local inn. One faculty member lived on site during the week and served as advisor/mentor. Students took honors courses on campus, plus a course that met at the apartments. They tended a community garden, contributed 30 hours of service, and took field trips together. Students consistently attributed the program structure to their academic success and personal growth, and attributed heightened self-confidence to quality contact with faculty. Faculty found the intellectual and social interaction with students and other faculty intensely rewarding. Faculty were challenged by team teaching and by giving up control.

Jami Woods described the vision, implementation, and effects of the initiation of a residential freshman learning community at the University of North Carolina-Greensboro where students were enrolled in three common courses, selected from interest groups organized around general academic themes. A Faculty Fellow who developed social and academic activities was assigned to each interest group. Students in the learning community were retained at a slightly higher rate of retention than non-learning-community participants. Interviews with students uncovered positive effects of learning community participation, including friendships, academic assistance, relationships with faculty, and ease of college adjustment.

Studies Focusing on Student Development

Mimi Barnard studied the impact of participation in a linked-classes learning community upon cognitive development and writing aptitude in college freshmen at Abilene Christian University. Scores on the Measure of Intellectual Development showed growth in cognitive development for both the learning community and control groups with no statistically significant differences between the two groups. Learning community students did not differ significantly from non-learning-community students in pre/post scores of writing aptitude.
Ann Carlson, in her master’s thesis, examined eighty-four reflective essays to assess ways students enrolled in a Freshman Interest Group (FIG) at Western Washington University acquired authentic learning competencies: cognitive competencies (e.g., problem-solving, critical thinking, etc); metacognitive competencies (e.g., self-reflection and self-evaluation); social competencies, (e.g., leading discussions, working in groups); and affective dispositions (e.g., perseverance, self-efficacy, etc.). She found that students were neither comfortable nor familiar with the open-ended and collaborative learning model used in the seminar component of the FIG, nor were they adept at self-assessment. Students made most reference to authentic learning in the categories of cognitive competencies and social competencies, and to self-efficacy within the affective dispositions.

Catherine Ott wrote a senior thesis for her undergraduate degree in which she examined the cognitive development/critical thinking skills, grades, retention and persistence of 93 Palomar College students enrolled its first learning community offering: a one semester program of four courses that were linked and grouped around a common theme. She used the Measure of Intellectual Development (MID) to assess cognitive development, and found statistically significant differences in the pre-post MID scores for students in the learning community, but not for those in the control group. She found no significant differences in pre-post mean grade point averages between students in the learning community and those in the control group. Retention for the semester was slightly higher for students in the learning community, but there was little difference in re-enrollment for the next semester. Learning community students generally perceived their skills and abilities to be higher at the end of the semester, while the control group students’ self-assessments stayed the same or lowered. Statistically significant self-assessed gains were noted by learning community students in the following areas: writing skills, motivation to pursue a college degree, awareness of racial and ethnic issues, and comfort-level in dealing with members of different racial/ethnic groups.

Faculty Perspectives on Learning Community Teaching

Thirteen studies included faculty perspectives about learning communities. Four focused exclusively on faculty.

Beverlye J. Brown investigated how the processes and practices of teachers in learning communities contributed to faculty professional development. She interviewed 22 instructors from the four institutions that comprise the “Claremont Community Colleges” (a pseudonym). The instructors taught in both linked and coordinated studies learning communities. Brown determined that teaching in learning communities positively affected teachers’ self-perception and their perception of students, colleagues, and teaching and learning. Teachers perceived that learning communities fostered a more learning-centered environment and they created more interactive strategies for students to learn. They also believed that the conversation in learning communities contributed to
a stronger sense of connection among teachers and students, and among teachers. Brown advocated the need for more professional development models that are contextually-based within teaching.

**Andrea Rye** interviewed 10 faculty members from two community colleges in Washington state to investigate the impact of team-teaching in interdisciplinary coordinated studies programs. She reported three key findings. First, participants stated that team-teaching in coordinated studies programs advanced instructional development and did so more effectively than traditional faculty development programs and self-directed development. Second, authority in decisions regarding curriculum and instruction empowered faculty, improving morale and productivity. Third, planning and instructing a course of study with intellectual comradeship improved pedagogical practices and produced intellectual insights. Rye, like Brown, supported the idea of professional development in context—in this case, team-teaching with knowledgeable peers. “Instructional development is a social act.”

**Gary Tollefson** surveyed 86 faculty members from Washington state community colleges to identify faculty perceptions of the strengths and weaknesses of learning communities, and actions within colleges that affect their implementation. He concluded that collaborative learning communities, in their many different models and forms, play a significant role in energizing and empowering administrators, students, and faculty. Faculty perceived learning communities to provide more opportunities than conventional classes for writing and speaking, and to encourage a more complex worldview, encourage higher order thinking skills, and promote general education coherence. Administrative support was the single most important element contributing to effective implementation, while lack of time, lack of administrative support, and instructor personality conflicts were deterrents.

**James Byers Young** interviewed five faculty members who team-taught a yearlong interdisciplinary first-year program at a large research university on the East Coast. He investigated how they gained knowledge outside the domain of their expertise. He found that as learners, these faculty showed great latitude in their own ways of knowing, became attuned to the subtleties of their colleagues’ work styles and various areas of expertise, accepted the process by which the course was run, admired freshmen, and bought into the process of intense teamwork. For them, learning was context-driven and social in nature. The learning community program provided an opportunity for ongoing participation and social interaction that enabled faculty to use previous knowledge within more practiced roles (e.g., instructor, expert) to play new roles (e.g., novice, learner) that allowed them to think about the course from new perspectives. Faculty acknowledged that they learned more about teaching from the experience of teaching together.
Other Studies

Barbara Oertel used a four-round Delphi study to identify the essential characteristics of curricular learning communities. The Delphi technique seeks to create a reliable response to a problem or question from a group of experts. Participants respond anonymously and individually; then, the data are fed back to the group for additional response. Seventeen experienced learning community practitioners and/or researchers from throughout the United States participated in the study. In the first round, they identified 79 essential features of a learning community. Over the course of three more rounds, they narrowed this list to five essential elements: (1) the curriculum is integrated and interdisciplinary, cutting across departmental lines and divisions; (2) there is a high level of faculty collaboration and participation in all facets of the learning community program; (3) learning is collaborative and active; (4) there is ongoing assessment and communication about student learning outcomes and program results; (5) the learning community program fits within its institution’s mission, structures, processes, culture, and climate.

Kenneth White used qualitative research methods (hermeneutic, naturalistic, and ethnographic procedures) to study communication patterns in a coordinated studies learning community, team taught by two instructors at an urban community college. In response to his first research question, “What are the general communication features of the learning community?,” he found that student and text-centered reading seminars, teacher- and content-centered lectures, and task-centered working seminars were the three communication events typical of this particular community. The major structural pattern of learning community communication was made up of various patterns of questioning and the major conceptual pattern was a disposition or orientation for communication on the part of learning community participants. He also looked at how well Gadamer’s Postmodern Communication Framework helps to articulate the characterizing communication features of a learning community and at the relationship between communication and the formation and maintenance of the learning community.

In this FIPSE grant-funded research project, Katherine Bernhardt Trow interviewed alumni of the Experimental College Program (ECP) at Berkeley to study its impact. Joseph Tussman designed the ECP, open to all entering Berkeley students, to “teach undergraduate students in their first two years of college to become responsible citizens in a democratic society.” Building on the work of his mentor, Alexander Meiklejohn, he combined a curriculum based on “great problems” with pedagogies that fostered community. Key pedagogical approaches included faculty-led seminars, student-led seminars, lectures, extensive reflective writing, no exams, and pass-fail grades. Two decades after they participated in Joseph Tussman’s Experimental College Program (1965-69), 40 former participants individually described to Trow how the ECP impacted them. The alumni were overwhelmingly positive about the effects of the ECP on
their intellectual development, academic and social identity, and self-confidence, and about its impact on the way they thought about and approached issues in their chosen professions.

Peter Tommerup used an ethnographic approach to study the teaching and learning culture at The Evergreen State College. Over the course of one year, Tommerup interviewed 84 faculty and staff and 74 students, and observed operations and processes at numerous campus sites and events. Although he did not set out to study “learning communities,” he looked at teaching and learning within the largely team-taught, interdisciplinary coordinated studies structure that defines Evergreen’s curriculum. His intent was to discern the consistencies and contradictions between the images of teaching and learning projected in college literature and the daily practice experienced by teachers and students. He also looked at ways the campus culture supported the six public teaching and learning goals, and considered what made the college distinctive. From stories told by faculty, staff, and students, he found 12 variables that “underlie and animate the supportive teaching and learning traditions”: Learning is: (1) allowed to be organic and emergent; (2) inviting; (3) supportive; (4) personally engaging; (5) communal; (6) egalitarian; and (7) playful, or at least with an element of humor. The remaining variables include: (8) the locus of learning is perceived to rest on the student; (9) learning allows students to take risks; (10) learning facilitates self-reflection and self-discovery; (11) participants expect that learning at Evergreen will lead to an exhilarating sense of transformation; and (12) all in all, learning reflects and encourages what some participants described as the “liberating arts.”
Appendix C
Annotated Bibliography of Multi-Institution Studies

Title: First-Year Curricula across Engineering Education Coalitions
Authors: Al-Holou, Nizar, Nihat M. Bilgutay, Carlos Corleto, John T. Demel, Richard Felder, Karen Frair, Jeffrey E. Froyd, Mark Hoit, Jim Morgan, and David L. Wells.
Institutions Studied: Rose-Hulman Institute of Technology, University of Florida, Texas A&M University-Kingsville, The Ohio State University, Texas A&M University, North Carolina State University, Arizona State University, University of Alabama, Maricopa Community College District, and Drexel University.

This paper summarizes a variety of pilot projects, developed by eight different engineering education coalitions sponsored by the National Science Foundation, all focusing on integrated first-year curricula in engineering programs. The report includes a summary overview of the various curricular interventions and then provides brief descriptions of each project, assessment findings, and implications, with the main emphasis on the description of the nature of the interventions. The data report focuses exclusively on retention and GPA, but the comparisons between the pilot programs and the control groups (or in some cases first-year students as a whole) are consistently positive in favor of the integrated curriculum offerings.

Title: Intellectual Development of Students in Learning Community Programs 1986-87
Author: MacGregor, Jean.
Institutions Studied: Bellevue Community College, North Seattle Community College, The Evergreen State College, Tacoma Community College-Evergreen Bridge Program, Centralia College, Matteo Ricci College at Seattle University.

This report describes an early and relatively large-scale (around 800 students) longitudinal research project that gathered standardized qualitative data on a range of different learning community efforts around Washington state. The assessment tool used was the Measure of Intellectual Development, a production-task instrument assessing the Perry scheme of intellectual and ethical development. While the study was largely exploratory, the findings were consistently and strongly positive, with the students in the learning community programs being studied demonstrating significant development change and higher Perry scores than general comparison groups. The study had limitations: no control groups were used, no effort was made to control for confounding variables, and the precise nature of the interventions involved are not clear. Yet, the results showed great promise for the impact of learning communities and established the Measure of Intellectual Development as a major tool for providing a global indicator of the learning in learning communities, one that continues to be widely used today.
Title: Strengthening Learning Communities: Case Studies from the National Learning Communities Dissemination Project (FIPSE).
Authors: MacGregor, Jean (compiler).
Source: Washington Center for Improving the Quality of Undergraduate Education, The Evergreen State College, Olympia, WA.
Institutions Studied: Collin County Community Colleges, De Anza College, Delta College, Holyoke Community College. Maricopa Community College, Metropolitan Community College, William Rainey Harper College, California State University, Los Angeles, California State University, Sacramento, Clarion University of Pennsylvania, State University of New York-Potsdam, Texas A&M-Corpus Christi, University of Wisconsin Colleges, George Mason University, University of Hawai‘i-Manoa, Illinois State University, University of Miami, Ohio University, and University of Texas-El Paso.

This monograph represents a collection of institutional case studies drawn from colleges and universities participating in the Washington Center’s FIPSE-funded national project that focused on supporting and expanding the burgeoning learning community movement across the United States. The report consists of detailed case studies from each of the 19 institutions featured. Each case study emphasizes the “lessons learned’ in the institution’s learning community implementation efforts as well as on any major assessment work. Overall, considerably more focus is on process and implementation issues rather than on specific assessment data/findings, with most of the assessment activities centering on persistence and grade data, satisfaction/perception surveys, and occasionally, focus groups. The reported results are generally positive, but as noted in a concluding reflections chapter from project evaluators Larry Geri and Duke Kuehn, what is most striking about the assessment reports across the case studies is the frequency with which the traditional program-evaluation-at-the-end model has been supplanted by “an approach that incorporates program evaluation into the design, implementation and ongoing development of a learning communities [program]” (201). This report offers a range of useful stories and significant insights into the implementation and assessment of learning communities.
Title: “Exploding Minds’ and Other Hazards of ‘Really Learning’: An Exploration of Student and Faculty Learning in a Learning Community Context.”
Author: Moore, William S.
Institutions Studied: Edmonds Community College, Skagit Valley College, Spokane Falls Community College, Seattle Central Community College, Shoreline Community College, and Bellevue Community College.

This “paper” is not a narrative report but a set of handouts and overheads from a conference presentation. The exploratory study, a joint project of Washington state’s two-year college system and the Washington Center for Improving the Quality of Undergraduate Education, was planned in collaboration with faculty involved in learning communities at six Washington two-year colleges. Interviews and focus groups were conducted with both students and faculty currently enrolled in or teaching learning communities (protocols of the questions asked are included in the handout). A qualitative analysis identified a number of significant themes with regard to student and faculty perceptions of the nature of, and influences on, their learning in the learning community context. Students and faculty agreed on key aspects related to student learning, including making connections, understanding context and perspective, and developing critical thinking skills. The handout also includes material linking the general findings of the study to the current key findings/conclusions of the international literature around knowledge, learning, and assessment.

Title: “Integrated Curricula in the SUCCEED Coalition”
Institutions Studied: North Carolina State University, University of Florida.

This report focuses on the efforts to implement integrated curriculum projects for engineering students at two different institutions—the IMPEC (Integrated Mathematics, Physics, Engineering and Chemistry) program at North Carolina State University and the Knowledge Studio program at the University of Florida. Both programs used a variety of assessment strategies ranging from collecting passing rates and retention data to administering common final exam problems and context-specific tools such as the Force Concept Inventory, a measure of students’ conceptual understanding of mechanics. Short-term results were fairly impressive in the IMPEC program, less so with the Knowledge Studio, perhaps due to the stronger level of integration evident in the former program. However, the positive results were not sustained when longer-term retention and graduation data were examined. The report is notable for some thoughtful reflections on the variety of challenges facing institutions interested in establishing such integrated curriculum efforts in engineering programs.
**Title:** Assessing Learning Community Effectiveness: A Multi-Campus Approach  
**Authors:** Snider, Kevin J. G., and Ann M. Venable.  
**Source:** Paper presented at the Annual Association for Institutional Research Forum, Cincinnati, Ohio, May 2000.  
**Institutions Studied:** 10 universities and colleges (not identified) across the United States.

This paper describes a large-scale (5,000 students) multi-institution study of learning communities with a major emphasis on exploring the extent to which a specific assessment tool (the Learning Community Effectiveness Questionnaire, LCEQ36) developed at Indiana State University could be used successfully with learning communities from other institutions. The report includes a wide range of quantitative analyses of learning community and comparison group students, along with extensive appendices providing even more detail on psychometric analyses of the instrument itself. While the authors conclude that learning communities enhance student interactions, the actual findings show results for the learning community students are in most cases simply less negative than for the non-learning-community students, but nevertheless negative overall. Because the report gives little information about the precise nature of the interventions studied and the instrument itself is not well-established, it is difficult to draw clear conclusions. The dimensions of learning community effectiveness and “college adaptation” addressed by the instrument do seem well-grounded in the literature, though, so the measure may simply need further refinement and study.
This report summarizes an in-depth study—conducted under the auspices of the National Center on Postsecondary Teaching, Learning and Assessment and funded by the U.S. Department of Education—of three distinct types of learning communities at three different institutions. The research project involved extensive qualitative and quantitative data-gathering over the course of an academic year; this paper addresses both arenas but emphasizes the qualitative findings. All three programs displayed positive findings for the learning community programs, both in terms of student persistence and perceptions, with students indicating greater personal involvement in their academic and social activities and greater developmental gains than comparison groups not enrolled in learning communities. The study is a model of a multimodal approach to research on a complex subject like learning communities and was the core research that led to many subsequent publications by Tinto, Love, and Russo on the role of academic communities and collaborative learning in fostering student engagement.
**Title:** Adding Value: Learning Communities and Student Engagement  
**Authors:** Zhao, Chung-Mei, and George D. Kuh.  
**Source:** Paper presented at the Annual Association for Institutional Research Forum, Tampa, FL, May 2003.  
**Institutions Studied:** 365 four-year institutions across the United States.

This paper describes a very large-scale (over 80,000 randomly selected first-year and senior students from 365 institutions) study using data derived from the 2002 administration of the National Survey of Student Engagement (NSSE) instrument, a relatively new and increasingly popular standardized survey designed for use in four-year colleges and universities (there’s also a two-year college version, the Community College Survey of Student Engagement, or CCSSE). The NSSE includes an item asking students whether they have taken, or plan to take, a learning community; excluding the students who answer “not sure,” this item can then be used to define a learning-community group and a non-learning-community group. The report describes a wide range of multivariate analyses used to explore differences between these two groups in this large sample of students, and the results indicate that experience with a learning community is associated with greater academic effort, academic integration, collaborative learning, and self-reported gains in personal/social development, general education, and practical competence. The effect sizes reported are generally substantial, leading the authors to argue that based on these data learning communities “qualify to be added to the list of effective educational practices” (16). They also, however, note two caveats to the research: the item wording makes it unclear, especially for first-year students, as to whether students had in fact actually participated in a learning community when they completed the survey (with seniors, it’s less likely they would still be “planning to take” one). Given that the results are equally positive for both seniors and first-year students, the authors suggest that the results hold up well despite the ambiguity in the item wording. The second, and perhaps more serious, limitation is that there is no way to know from the NSSE survey what kind of learning community students have experienced, making it difficult to draw nuanced conclusions about the effects of the wide variety of learning community approaches. Nevertheless, this study is well-designed, written clearly, and provides strong, if somewhat generic, corroborating support for the theoretical connections between learning communities and student engagement as well as student learning.
## Appendix D
### Summary Matrix of Assessment Reports from Single Institutions

<table>
<thead>
<tr>
<th>Nature of Document</th>
<th>Institutional Type</th>
<th>Primary Area of Curricular Focus</th>
<th>Sample Size</th>
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<th>Methodology</th>
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### Key
- N/A: Report did not quantify sample
- Var: Sample size varied with assessment method
- Number Unclear: Number is unclear

### Sample Size (N)

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### Learning Community Assessment Reports from Single Institutions

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2. American University of Paris
3. Appalachian State University
4. Arizona State University
5. Augsburg College
6. Ball State University
7. Baltimore City Community College
8. Bowling Green State University
9. British Columbia, University of
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11. British Columbia, University of
12. California, Los Angeles, University of
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**Methodology**
- Evidence of Impact
  - Program Implementation
  - Faculty and Administrators’ Response to LC
  - Intellectual Development
  - Learning Environments
  - Student Self-report of Attitudes/Values/Behaviors
  - Academic Success
  - Retention and Persistence

**Sample Size**
- Sample Size (N) Faculty and Administrators
- Sample Size (N) Comparison Group
- Sample Size (N) Learning Community Students

**Primary Area of Curricular Focus**
- College
- Liberal Arts
- Comprehensive
- Doctoral

**Institutional Type**
- Community College
- Comprehensive
- Liberal Arts
- Doctoral

**Evidence of Impact**
- Student Perceptions of LC Role and Value
- Program Implementation
- Faculty and Administrators’ Response to LC
- Intellectual Development
- Learning Environments
- Student Self-report of Attitudes/Values/Behaviors
- Academic Success
- Retention and Persistence

**Nature of Document**
- Journal Article
- Conference Presentation
- Unpublished Report
- Commercially Available Instrument or Survey
- Locally Designed Instrument or Survey
- Tests/Exams/Student Work (e.g., Portfolios, etc.)
- Focus Groups/Interviews
- Retention Rates

**Sample Size**
- Sample Size (N) Faculty and Administrators
- Sample Size (N) Comparison Group
- Sample Size (N) Learning Community Students
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Appendix E
Commercially-Available Instruments Cited in the Individual-Institution Assessment Reports

Academic Profile
- California State University, Hayward

Accuplacer Sentence Skills and Reading Subtests
- College of the Desert

Attitudes to Engineering Survey (developed at University of Pittsburgh)
- North Carolina State University

California Critical Thinking Analysis
- Rose-Hulman Institute of Technology

CIRP Freshman Survey
(Cooperative Institutional Research Program, Higher Education Research Institute, University of California, Los Angeles)
- Eastern New Mexico University
- George Mason University New Century College
- Illinois State University
- Northeastern Illinois University

College Assessment of Academic Proficiency
- California State University, Hayward

College Classroom Environment Scales
- Portland State University

College Student Experiences Questionnaire
- California State University, Hayward
- The Evergreen State College
- Sonoma State University
- University of Wisconsin-Oshkosh

College Student Questionnaire
(Educational Testing Service)
- Sonoma State University

College Outcomes Survey
(American College Testing)
- California State University, Hayward

College Outcomes Measures Project
- University of Wisconsin-Oshkosh

College Student Experience Questionnaire
- University of Missouri-Columbia

College Student Inventory
(Noel-Levitz)
- Appalachian State University

Collegiate Assessment of Academic Performance
(American College Testing)
- University of Wisconsin-Oshkosh

Daly-Miller Writing Apprehension Test
- St. Cloud State University

Descriptive Test of Language Skills Reading Comprehension Subtest
- College of the Desert
Force Concept Inventory
(Hestenes)
  - Arizona State University
  - University of Massachusetts Dartmouth
  - North Carolina State University
  - Rose-Hulman Institute of Technology

Gates MacGinitie (Reading)
  - Long Beach City College

Johnson Learner Preference Scale
  - University of Southern Maine

LCEQ36
(Developed by James W. Chesebro, Ruth L. Green, Kevin Snider, and Ann Venable of Indiana State University)
  - Appalachian State University

Learning Environment Preferences
(Center for the Study of Intellectual Development)
  - Rose-Hulman Institute of Technology

Learning and Study Strategies Inventory
  - LaGuardia Community College

Mechanics Baseline Test
  - Arizona State University

Measure of Intellectual Development (Lee Knefelkamp and Carol Widick)
  - Daytona Beach Community College
  - The Evergreen State College
  - University of New England
  - North Seattle Community College
  - University of Wisconsin-Marinette

Myers Briggs Type Inventory
  - North Carolina State University
  - Rose-Hulman Institute of Technology
  - University of Tennessee

National Survey of Student Engagement
  - Bowling Green State University
  - Eastern New Mexico University
  - The Evergreen State College
  - Northeastern Illinois University
  - Wofford College

Nelson Denny Standardized Test
  - Eastern New Mexico University
  - Long Beach City College
  - St. Cloud State University

Noel Levitz Student Satisfaction Inventory
  - Northern Kentucky University

Personal Report of Communication Apprehension
  - St. Cloud State University

Writing Skills Test
  - California State University, Hayward
Appendix F

Bibliography of all the Studies and Reports

Dissertations, Theses, and Single-Institution Research Studies on Learning Communities

This section of the bibliography is organized as follows. The numbers below correspond to the numbered list of authors in Appendix A, the Summary Matrix of Dissertations, Theses, and Single-Institution Research Studies, on pages 74-75. Each citation is organized by name of researcher, title of study, type of study, year of publication and, if available, the AAT number. The AAT number is the publication order number from ProQuest, Dissertation Abstracts, PO Box 1346, Ann Arbor, MI 48106. Phone: 800-521-0600, ext. 7020. Website: wwwlib.umi.com/dissertations/search.

Multiple-Institution Research Studies on Learning Communities

This section of the bibliography is organized as follows. Each citation is organized by name of authors, date, title of study, (institutions studied), and source of study.


MacGregor, J. 1999. “Strengthening Learning Communities: Case Studies from the National Learning Communities Dissemination Project (FIPSE).” (Collin County Community Colleges, De Anza College, Delta College, Holyoke Community College. Maricopa Community College, Metropolitan Community College, William Rainey Harper College, California State University-Los Angeles, California State University-Sacramento, Clarion University of Pennsylvania, State University of New York-Potsdam, Texas A&M-Corpus Christi, University of Wisconsin Colleges, George Mason University, University of Hawai‘i-Manoa, Illinois State University, University of Miami, Ohio University, and University of Texas-El Paso.) Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education.


Assessment Reports on Learning Communities from Single Institutions
This section of the bibliography is organized as follows. The numbers below correspond to the numbered list of institutions in Appendix D, Summary Matrix of Assessment Reports from Single Institutions, on pages 95-101. Each citation is organized by name of institution; year of report or publication; title of report; authors or office generating the report (if available). If the document has been published, the publication citation appears within [square brackets].

22. College of the Desert. 2003. “Learning Community Student Performance Outcome Differences under Clustered and Non-clustered Teaching Conditions in Remedial Reading and Remedial Writing Courses.” Franklin, D.
34. Georgia State University. 1999. “Retention Rates for Freshman Learning Community Students and Other Freshmen, Fall 1999, Fall 2000, and Fall 2001.”
39. Illinois State University. 2002. “Connections Assessment 2001 and 2002.” For the 2001 assessment results, the authors are Fabich, M. J., M. Greenberg, and C. Shipley; for the 2002 Annual Survey results, the authors are Greenberg M., and K. Steagall.
40. Indiana State University. 2003. “Isolating the Impact of Learning Communities and First-Year Residence Halls on First-Year Student Retention and Success.” Guell, R. C.
41. Indiana University-Purdue University Indianapolis. 2001. “How Instructional Teams
Implemented University College’s First-Year Seminar in Fall 2000.” Duckworth, K.

42. Indiana University-Purdue University Indianapolis. 1998. “Evaluating and Assessing Learning Communities.” Borden, V. M. H., and P. M. Rooney.

43. Indiana University-Purdue University Indianapolis. “What Students Need to Know to Make a Successful Transition to College: Evaluating the Template for the First Year Seminar.” Lowenkron, A., and K. M. Oren.

44. Iowa State University. 2001. “Report on One-Year and Two-Year University Retention Rates Associated with First-Year Participation in a Learning Community at ISU.” Epperson, D. L.


86. Skagit Valley College. 1991. “An Analysis of Self-Reports and Test Scores as a Measure of Success in a ‘Linked Course’.” Witten, M.
95. SUNY Stony Brook. 1981. “Significant Changes, Part I “Analysis and Discussion of Fifty-seven Responses to the Invitation: Describe the most significant changes you see in yourself as a result of the FLC experience.” External site visit report by Landa, A.
96. SUNY Stony Brook. 1981. Significant Changes Part II: “Is There Life After the Federated Learning Community?” External site visit report by Landa, A.


119. Wofford College. 2003. “Seeing the Big Picture: Linking the Sciences and Humanities.” Annual Report for National Science Foundation CCLI/A&I Grant #0126788 Goldey, E.