

Assessing Student Outcomes in Learning Communities: Two Decades of Studies at a Community College

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The assessment of student learning outcomes in integrated courses is particularly challenging. This article reviews a range of assessment studies conducted over two decades by a community college that requires integrated Learning Communities for the transfer degree. This review highlights methodologies, findings, and lessons learned from these assessments of integrated learning. This journey is recounted with the purpose of informing assessment practices at other colleges.

Learning Community Assessment in the Literature

In the past two decades, the interest in Learning Communities as a curricular innovation has been fueled in part by its potential for fostering interdisciplinary learning in undergraduate education. In their executive summary to *Interdisciplinary Education at Liberal Arts Institutions*, Rhoten, Boix Mansilla, Chun and Klein (2006) observe that interdisciplinary learning is “one of the ‘catch fire’ ideas of 21st century liberal arts education.” The Secretary’s Commission on Achieving Necessary Skills (1991), numerous professional organizations (cited in Humphreys, 2005), the American Association of Colleges and Universities *Greater Expectations* (2002), and the American Association of Colleges and Universities/Carnegie Foundation’s “A Statement on Integrative Learning” (2004) all argue that interdisciplinary or integrative frameworks must become an essential characteristic of American education.

Coincidentally, the imperative to assess student learning outcomes developed in parallel with this growing interest in Learning Communities and the national focus on integrative learning (Smith, MacGregor, Matthews & Gabelnick, 2004). Although both initiatives have been refined over time, as Taylor, Moore, MacGregor, and Lindblad note in their 2003 examination of two decades of Learning Community (LC) assessment, the research focus has been on those factors easiest to quantify: retention, grades, GPA, and surveys of student satisfaction. Only a few studies measured students’ cognitive or personal development.

According to Taylor, et al. (2003), despite variations in Learning Community types and design, the studies demonstrated “overwhelmingly positive results” for retention, academic success, and satisfaction, suggesting that “even modest learning community initiatives are likely to reap positive outcomes” (p. 19). Additionally, both students and faculty generally find their Learning Community experiences positive, and under-prepared students demonstrate

strong gains in retention, completion of college-level course sequences, and academic achievement. However, as the authors point out, “much less assessment work focuses on direct measure of and/or external judgments about the nature and extent of student learning in learning communities” (pp. iii-iv).

While the data about retention and persistence has provided useful support for this promising curricular innovation, there is clearly a need for research about learning outcomes in Learning Communities—about what those outcomes are and how they are attained. Establishing an assessment agenda is, however, a complicated task. On the one hand is the need for “clear articulation of what counts as quality interdisciplinary work, and how such quality might be measured” (Boix Mansilla, 2005, p. 16). At the same time, as Vincent Tinto observes in his introduction to the Taylor et al. (2003) monograph, such “assessments need to be multi-method and longitudinal because many impacts of learning communities emerge over time and are not captured in one academic term” (p. ii).

Smith, et al. (2004) argue that for Learning Community initiatives to be lasting, assessment of these programs “should not be an afterthought tacked on an educational program; instead, it should be an integral part of the process used to develop and sustain the entire educational enterprise” (p. 220). They emphasize that LC assessments should “involve explicit cycles of planning, inquiry, and reflection, especially at the classroom level where teachers and learners do their work” (220). They also advocate that the focus of the assessments must be on both “proving” and “improving.”

The Learning Community Model at Skagit Valley College

An early adopter of Learning Communities in Washington State, Skagit Valley College (SVC) has a 20-year history of assessments that mirror assessment efforts at the

national level. A relatively small college district in Northwest Washington State, Skagit Valley includes a main campus in Mount Vernon, a campus on Whidbey Island, and several centers in outlying areas. The college enrolls approximately 7,000 students (4,000 FTE) in credit courses leading to a university transfer degree or to a degree or certificate in one of 30 Professional-Technical programs. The student body is primarily white (80%); however, the Hispanic population in the region is growing at a relatively rapid rate, and their participation in higher education is slowly increasing. Approximately one-third of SVC students are first-generation college attendees.

Skagit Valley began offering curricular Learning Communities (LCs) in 1986, a year before beginning an in-depth study of its General Education program. Early assessments indicated positive results for student retention, student satisfaction, and faculty perceptions of student gains, all of which matched findings in the emerging national literature on Learning Communities (Goodsell, Maher & Tinto, 1992; Hill, 1985; MacGregor, 1987). This served as the impetus in 1993 for the college to revise its General Education program to require that both of the college-level composition courses and at least one course from each of the three distribution areas be taken in Learning Communities. The primary goals of the requirements were to support students' development of academic writing and to help them develop an understanding of the connections among disciplines.

To meet these goals and the needs of students, Skagit Valley schedules more than fifty different Learning Communities each year, generally pairs of courses offered in a variety of structures—team taught, linked, and federated. About half of Skagit's Learning Communities are team-taught with the coursework fully integrated and the faculty from each course in the classroom at all times, for instance, *Feast or Famine* (Nutrition and Sociology) and *Sex.comm* (Human Sexuality and Mass Communication). The second Learning Community structure links pairs of courses with one or more overlapping assignments. These include most composition-based and all developmental Learning Communities, for example, *Stating the Matter* (Chemistry and English Composition) and *Reading Between the Numbers* (developmental Math and Reading).

In the federated Learning Community structure, small groups of students from several different courses co-enroll in one course and, together, explore the relationships in the two fields of study. For instance, in *Celluloid Science*, science majors enroll in an introductory film course and one of the courses required for their major with the explicit purpose of exploring how films portray scientists, scientific practices, and concepts. In *This, That, and the Other*, students co-enroll in a research paper course and one of several social science courses, with the goal of researching topics specific to their field of study.

While the level of integration varies, the expectation is that all Learning Communities emphasize collaborative, interdisciplinary learning and that students will work together in small and large groups to prepare projects, panels, or papers that show their understanding of the connections between the two fields of study.

SVC Learning Communities and Assessment: An Overview

Assessment studies undertaken between 1987 and 1992 were small and sporadic, focusing on student retention, course design and delivery, and, to a lesser degree, academic performance. The college registrar provided retention information; however, most studies were conducted by the few faculty members who had some expertise in research design and data analysis. In two instances, the faculty coached student researchers, who conducted surveys and presented their analysis of the results to faculty committees.

After the requirement for Learning Communities was passed, the focus was on baseline information: retention, analysis of GPAs, and student and faculty perceptions of the Learning Community experience as well as implementation. In the 1995-1996 academic year, for example, teams of faculty and administrators conducted a variety of studies, 26 in all, which were then summarized into a comprehensive report with specific recommendations.

While some assessment projects attempted to measure student learning, the scale and ambitiousness of the reform and the absence of any infrastructure for assessment limited what could be achieved. Because Learning Communities were required for *all* transfer students, large scale comparison studies with a control group were not feasible. Further, Learning Communities at SVC were—and continue to be—offered in a wide variety of forms and contexts that change quarterly and annually, taken by a very diverse student population and in notably different sequences. An early lesson from these efforts was the recognition that a comprehensive assessment agenda is not easily managed at a small institution.

In the next few years, as the college grappled with how to measure learning in Learning Communities, the lessons were sometimes inadvertent but useful nonetheless, such as the two described in the "Early Successes and Failures" section below. One of the most critical lessons of this period, however, was the importance of an infrastructure for research.

In the late 1990s, the focus of the college's assessment agenda moved from implementation to developing more robust methods for assessing student learning. This movement was strengthened by a growing focus of accrediting bodies on student learning outcomes, the creation of an institutional research office at the college in Fall 1998, and the formation in 2001 of a Task Force to review the existing General Education learning outcomes and curriculum. As a result, the college began to search for and rely on assessment designs that improved our ability to measure student learning in meaningful ways. Some of these studies are described in the "Focus on Student Learning Outcomes" section of the article.

The findings from both external and internal studies were critical to discussions and decisions of the General Education Task Force as they reviewed student learning outcomes and degree requirements between 2003 and 2005.

Ultimately, the Task Force revised the General Education program to 1) include more comprehensive and measurable Learning Values and Learning Outcomes, 2) re-define the role of Learning Communities and other elements of curriculum reform into a broader context of integrative learning, and 3) recommend that Learning Communities be retained as a requirement for the transfer degree.

Although Learning Communities remain a requirement for the transfer degree, implementation issues – small campus size, increasing numbers of part-time students, and shifts in the four-year universities' admission criteria for transfer-ready students – compel us to continue the search to identify more precisely what distinctive student learning outcomes are provided by Learning Communities. Some recently initiated assessment endeavors are described in the "Future Assessments" section of this article.

Early Successes and Failures

The early studies conducted by the college included faculty, staff, and student focus groups; a study of student intellectual development; and analyses of student writing on a prompt designed to elicit information about ethnorrelativity and critical thinking. There were lessons to be learned from these early endeavors, both about Learning Communities and about the methodologies used in the studies.

Faculty, Staff, and Student Focus Groups

Focus groups of students, faculty, and staff were initiated in an attempt to identify areas of strength and weakness in the implementation of the Learning Communities. To ensure that results were consistent across the district, the college trained faculty to conduct small group interviews based on the classroom assessment tool known as Small Group Instructional Diagnosis (SGID) described in Clark and Redmond (1982). For these studies, participants worked in groups of four to five to answer two questions: "What has worked well?" and "What improvement is needed?" Each group would prioritize its list, identifying the top three items on which they agreed. The facilitator recorded results from all groups and canvassed all participants to determine the level of dissent, if any.

The majority of responses from faculty, staff, and students in these SGID focus groups were positive and directed toward student learning; negative comments focused almost exclusively on implementation and delivery. Faculty and staff believed that the Learning Communities reinforced other General Education outcomes, in addition to writing and connections between disciplines. For example, faculty reported that Learning Communities helped students develop more complex critical thinking skills, which they described as shifts from passive to active learning, the ability to question and think rigorously, and the confidence to explore complex issues. They observed that pairing composition with a second discipline reinforced learning in *both* courses, so that students learned "more easily, more effectively, more deeply." They also cited improvements in stu-

dents' communication skills, specifically those essential to collaboration and the appreciation of diverse perspectives.

Although students noted that having two disciplinary and/or faculty perspectives in a course could be confusing, their comments mirrored faculty observations. Students cited an increase in their understanding of relationships in different disciplines and an appreciation of "real world" connections as the most notable aspects of their learning. In composition-based Learning Communities, they reported that they gained a greater depth of understanding of the field they studied with writing, not just terminology and concepts but also relationships to current events in other fields of study.

Based on results from the focus groups and analytical studies, the college revised the degree requirements to permit a greater variety of Learning Community combinations (for instance, with speech and developmental classes) and allocated resources for faculty development (including workshops, retreats, and faculty handbooks).

Another outcome of the research conducted during this period was the realization that SGIDs were a valuable tool for faculty and course development and that the methodology (a small group and a pair of focused questions) provided a useful research tool as well. The college has continued to train faculty in SGID over the years and to use SGID as a qualitative data collection method.

Student Intellectual Development

Studies elsewhere in the state and nation, for instance, at Daytona Beach Community College (FL) and The Evergreen State College (WA), had established the positive impact of Learning Communities on intellectual development (Avens & Zelle, 1990; Thompson, 1990). Intrigued by the results of this research, Skagit Valley decided to participate in a multi-college study attempting to measure gains in student intellectual development for students enrolled in Learning Communities.

The first stage of the assessment was to be an analysis of the intellectual growth of students enrolled in Skagit's Learning Communities compared to those in stand alone courses. There was also interest in knowing whether requiring two Learning Communities affects student learning outcomes for the degree. The protocol was the Measure of Intellectual Development (MID), based on William Perry's (1970, 1981) Scheme of Intellectual and Ethical Development, a methodology which uses an essay prompt administered in class or a similar setting. The essays were administered at SVC during Spring quarter 1998 in six courses, both Learning Communities and stand-alone courses. Approximately 200 essays were collected and subsequently analyzed during the summer.

The second stage of the project, which was to include a follow-up study of a cadre of students using portfolio assessment and/or interviews, was never conducted since the first stage provided almost no useful information. The majority of student responses were cursory – one or two sentences long – or, in contrast, well-developed essays revised on the basis of faculty feedback. As a result, the project

was never completed. While the college garnered no meaningful data from this attempt, we learned some valuable lessons about assessment. First, we discovered anew that complex study designs lead to complex problems. In addition to collecting multiple writing samples from students in multiple sections, our study design involved faculty from several colleges, which lead to problems with logistics and timing.

More importantly, we realized that if we ask students to spend time providing thoughtful responses, we need to take into account the context in which they write. By the end of this particular quarter, students in the Learning Communities were suffering from survey fatigue, having been asked to complete multiple non-course related surveys that quarter. It was also apparent that students provide more thoughtful, detailed responses and analysis if they understand *why* they are being asked to spend time evaluating a course.

As a result, in all subsequent assessments, including the quarterly surveys described later in this article, the timing and number of student surveys is monitored. In addition, scripts for faculty administering surveys were developed that incorporate clear explanations of the purpose and importance of college assessments of student learning.

Ethnorelativity and Critical Thinking

One of the major college initiatives during this period was the infusion of cultural pluralism and critical thinking across the curriculum. On the Whidbey Island Campus, faculty reviewed student writing to examine the extent of student movement from ethnocentricity to ethnorelativity. Two hundred and fifty students in both pre-college and college-level English classes were asked to respond to a writing prompt. Each response was scored on a holistic scale (1 to 6) measuring ethnocentricity/ethnorelativity using Bennett's (1993) criteria for intercultural sensitivity. Two readers were used for each essay, and the average of scores was used as a measure. The study results indicated that students who had taken composition in Learning Communities were significantly more ethnorelative than those who had not taken these classes.

In a similar study focusing on critical thinking, students from English classes offered in a variety of formats were given a writing sample question which was then scored on a holistic scale (-6 to +6) measuring critical thinking ability. Three readers were used for each essay and the sum of scores was used as a measure. The results from this study indicated that students who had taken their composition linked to another course were more likely to be better critical thinkers, according to the readers, than those who had not been in a linked course.

While the focus of these two studies was on student learning related to specific general education outcomes and the results were not systematically shared with the entire college, they became, incidentally, data that ultimately helped the college better understand student learning in Learning Communities.

Focus on Student Learning Outcomes

The following five research efforts—a faculty focus group, quarterly student surveys, the Community College Survey of Student Engagement, a study of overarching general education outcomes, and a transfer student study—exemplify the shift from implementation to improving student learning and better understanding the practices that promote that improvement.

Faculty Focus Group - 1999

As part of the effort to narrow our research focus on the learning outcomes associated with Learning Communities, we convened a group of faculty in Spring 1999 to discuss their perceptions of the differences they found between the stand-alone and Learning Community versions of their courses. During the interviews, faculty members from Art, Theater Arts, Psychology, and English were asked to articulate the differences between the two modes of delivery with regard to intellectual tasks assigned, evidence of progress, student experiences and responses, and faculty expectations.

While some focus group participants believed that Learning Communities can feel like a “magic” process with “elements and transformations not easily defined,” they nevertheless agreed that Learning Communities were a more effective structure for supporting student intellectual gains. The integrative, collaborative assignments allow students to address broader issues and connect them to experiences beyond the classroom. Because the design requires the presence *and involvement* of at least two faculty members, Learning Communities provide students with models of—and practice in—effective collaboration and integration between disciplines and between disciplinary studies and experience. As one faculty member observed, “we work on all of these [concepts and critical thinking skills] in stand-alones but it’s *demonstrated* in Learning Communities.”

Faculty also pointed to efficiencies that arise in Learning Communities: “We don’t have to teach as much about diversity because [students] are living it.” Finally, the faculty noted that Learning Community students become more independent; their focus shifts from attentiveness to instructors to what is happening in the class and to their own role in the learning process. For instance, during group presentations, when faced with questions for which they have no answers, students turn to each other instead of to their teachers.

Quarterly Student Surveys

Soon after the implementation of the Learning Community degree requirement, the General Education Coordinator at the Whidbey Island Campus developed a brief survey that is now administered district-wide each quarter to students enrolled in Learning Communities. The survey consists of two questions—with two additional questions about writing for composition-based Learning Communi-

ties—and a Comments section. The results are compiled and reported by the district’s Institutional Research Office. The surveys items and results for the past five years are presented in Table 1. While the results for individual classes vary slightly, the overall results for any given quarter or year have been fairly consistent.

Consistent with other study results, students’ positive comments on the surveys tend to focus on two aspects that support their learning: the collaboration among faculty and students and the interdisciplinary structure. For example, students note that “interaction within the learning community has been helpful in retaining information for exams and assignments” and that the “work from each section reinforced the learning from the other section.” Their observations suggest that they understand and can articulate how, in a Learning Community, their learning is deepened: “The combination of classes provided me with a chance to fully digest the material being studied through the various projects and essays in the discipline, which I think have generated a true and comprehensive understanding of ideas that I will take with me for the rest of my life.” Perhaps most interestingly, as illustrated in the following two remarks, students have suggested that their learning is greater than the sum of two courses: “Both of these courses would be strong alone but together they unify concepts that would otherwise be left untouched” and “If they had been separate, I would have known what and where, but not the why, and the why is always the most important question.”

Quantitative data and comments from the surveys have also served as a means for analyzing perceived problems. For instance, the college has had questions about the effectiveness of the two markedly different structures for teaching composition LCs; consequently, the survey responses have been coded to indicate whether the courses are linked or federated, the former characterized by high faculty collaboration. The results of the student surveys based on federated or linked delivery are also included in Table 1. When taken as a whole, students perceive the non-composition LCs as more valuable than the composition LCs. However, the results for students in linked (collaborative) composition-based Learning Communities are fairly close to those in non-composition LCs and significantly higher than their counterparts in federated composition LCs.

To get a better understanding of the perceived differences between linked and federated composition Learning Communities noted in Table 1, the open-ended responses in the 174 surveys were coded and analyzed for a particular quarter of interest. Some students made multiple responses in the comments section; others made none. The 83 positive responses in each category were higher for linked courses, with the majority (77%) of those comments directed at learning to write, exploring topics in depth, and the quality of the experience. The remaining 23 percent were directed at coordination, faculty contact, and the two-for-one value of combining courses.

The 50 negative comments were more varied and not always related to writing or combining the courses. Lack of coordination or communication or relevance of assignments accounted for 46 percent of the comments, the majority (91%) from students in federated courses—suggesting the need for better federated course design. Eight responses (16%) called for more separation of English—all from linked courses. As the researchers noted, although some students rated as negative the inability to cleanly divide classroom activities and assignments, this is considered a measure of successful design for interdisciplinary combinations.

The survey results have been a useful strategy for providing feedback for faculty, monitoring the program, and rethinking the role of Learning Communities in meeting General Education outcomes. Results for individual courses are shared with—and only with—the instructors for purposes of course improvement, while aggregate data is shared with the General Education Coordinators, the Learning Community Advisory Committee, the administration, and counselors to assist with curricular decision-making, advising, and general awareness of how well the college is serving students. Aggregate data is shared with the college’s Board of Trustees as part of a Monitoring Report each year.

Community College Survey of Student Engagement (CCSSE)

The college had administered the Community College Student Experience Questionnaire in 1996 and 1999, but switched to the Community College Survey of Student Engagement (CCSSE) in 2003 because the CCSSE 1) mirrored

Table 1. Mean Responses to Quarterly Survey Items in Non-Composition and Composition Learning Communities (N = 4779)

	Non-Composition LCs (n = 1999)	Composition Learning Communities		
		All (n = 2780)	Linked (n = 2038)	Federated (n = 742)
This learning community has been a valuable educational experience.	4.11	3.87	3.95	3.64
I believe it was probably more valuable to have taken these classes together than it would have been to take them separately.	3.84	3.62	3.70	3.39
The writing I did in the English class helped me to do better in the content area class.		3.63	3.67	3.52
The content area class provided good subject matter for the compositions.		3.88	3.95	3.67

Note: The differences between linked and federated were all significant at < .01. The response scale for survey items is from 1 (“Strongly Disagree”) to 5 (“Strongly Agree”).

very specifically the college's concern with student learning and engagement, 2) included a question that identified students who had taken/were planning to take/had not nor had plans to take Learning Communities, and 3) had established national benchmarks against which the college could measure its performance.

The CCSSE results from the 2003, 2005, and 2007 administrations have been relatively consistent. The data have also provided the opportunity for an in-depth analysis of the impact of Learning Communities on student engagement and learning activities. The most dramatic results are those that indicate that students who took Learning Communities were significantly more likely to engage in activities that increase their time on task (and thus their chances for meeting their educational goals) as well as to assume responsibility for their learning.

As shown in Table 2, students who had taken Learning Communities were significantly more likely to have prepared two or more drafts of an assignment, worked with other students both in and out of class, and worked on papers or projects requiring integration of ideas or information from various sources than their counterparts who had not. LC students also indicated a higher incidence of interaction with faculty members.

A demonstrated understanding of community and cultural diversity is one of the college's General Education Learning Outcomes. The CCSSE data suggests that taking Learning Communities makes a significant contribution to meeting that outcome. As shown in Table 3, students who

had taken a Learning Community were more likely to report having had serious conversations with students of a different race or ethnicity than their own. LC students also indicate that the college encouraged them to have contact with students from diverse backgrounds and contributed to their understanding of people of other racial and ethnic backgrounds.

The CCSSE results are shared with faculty, staff, students, and administrators to increase awareness and inform decision-making, including the work of the General Education Task Force during 2002-2005. Of particular interest to the Task Force was the pervasiveness and impact of the active and collaborative learning activities that characterize the Learning Community program at SVC. The success of Learning Communities in creating these learning opportunities is exemplified by the fact that SVC has consistently been a CCSSE Benchmark College, with above-average scores for Active and Collaborative Learning and Student/Faculty Interaction compared to our peer colleges.

Overarching General Education Outcomes

In 2002-03, the college designed a multi-year, multi-phase study to assess student learning. The goal of the first phase was to attempt to measure four learning outcomes originally deemed important but not measurable. Referred to as "overarching general education outcomes," these included students' ability to 1) apply a variety of concepts/texts/contexts and perspectives to solving problems and thinking about issues, 2) connect their life experiences, ideas,

Table 2. Mean Responses for Selected CCSSE Items Related to Active Learning and Engagement Based on Learning Community Completion (N = 405)

Variable	Learning Community		Significance
	Have Taken (n = 173)	Not Taken (n = 232)	
Asked questions in class or contributed to class discussions	3.00	3.00	1.000
Made a class presentation	2.43	2.27	.069
Prepared two or more drafts of a paper or assignment before turning it in	2.96	2.45	.000
Worked on a paper or project that required integrating ideas or information from various sources	3.14	2.75	.000
Worked with other students on projects during class	2.88	2.69	.021
Worked with classmates outside of class to prepare class assignments	2.49	2.10	.000
Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	2.87	2.69	.038
Worked harder than you thought you could to meet an instructor's standards or expectations	2.78	2.52	.003
Used email to communicate with an instructor	3.10	2.67	.000
Discussed grades or assignments with an instructor	2.76	2.58	.039
Discussed ideas from your readings or classes with instructors outside of class	2.11	1.88	.012
Worked with instructors on activities other than coursework	1.74	1.45	.000

Note: The prompt for items in this table was: "In your experiences at this college during the current school year, about how often you have done each of the following?" Response options ranged from 1 ("Never") to 4 ("Very Often").

and abilities with those that others bring, 3) understand and value the learning process for themselves and others, and 4) connect their learning to external, lifelong social issues. The second phase of the study was to examine whether results differed for courses when they were offered stand-alone or in a Learning Community.

Student-written reflections about their learning were used to determine whether these four outcomes were being met over the span of a quarter-long course. The essays were completed by students enrolled in Learning Communities and students enrolled in the corresponding stand-alone courses taught by the same instructors, all of whom were experienced Learning Community faculty.

During the first phase of the analysis, faculty coded the end-of-quarter student responses. The questions for these reflections focused on students' anticipated and unanticipated learning and whether the course had changed the way they would approach learning in the future. The initial analysis of student writing indicated that students did, indeed, address the overarching values. The prompts elicited both depth and breadth in students' comments about the application of a variety of concepts, texts, and contexts to solving problems and thinking about issues, about understanding as well as valuing the learning process, and about connecting their learning to external social issues. There were fewer comments demonstrating self-other connection.

Comments typical of Learning Community students

include the following: "After taking this course I feel that I can make connections to various things, such as history, influences, people, and culture. This course taught me the value of making connections and things from my own perspective." Another LC student stated: "By combining course topics you get the 'bigger picture' and are able to sort of apply what we are learning better. By applying a subject or topic to another subject or topic you have to comprehend what you are learning and apply it to other things." While the grammar might be better, the sentiments get to the outcomes of interest.

The second phase of this research was delayed until 2007, when the results of the end-of quarter responses in both Learning Community and stand alone courses were quantified and compared. The results, summarized in Table 4, indicate that for three of the overarching values (valuing learning, connecting classroom learning with the world, and connecting with others) students enrolled in Learning Communities and in the stand alone versions of courses responded at about the same rates. However, students in Learning Communities were far more likely to cite applying or appreciating a variety of perspectives to problem solving as a significant outcome – 54.9 percent compared to 15.4 percent.

The comparison of responses between the stand-alone and Learning Community versions of courses reflected this as well. For instance, students in a Learning Community

Table 3. Mean Responses for Selected CCSSE Items Related to Diversity and Multicultural Interaction Based on Learning Community Completion (N = 405)

Variable	Learning Community		Significance
	Have Taken (n = 173)	Not Taken (n = 232)	
How often have you "had serious conversations with students of a different race or ethnicity other than your own?"	2.61	2.26	.000
How much does the college encourage "contact among students from different economic, social, and racial or ethnic backgrounds?"	3.01	2.53	.000
The extent to which the college contributed to your "understanding people of other racial and ethnic backgrounds"	2.66	2.24	.000

Note: The response categories for the first item ranged from 1 ("Never") to 4 ("Very Often"); for the next two items the response categories ranged from 1 ("Very Little") to 4 ("Very Much").

Table 4. Assessing Overarching Outcomes Based on Student Writing (N = 110)

	Percent of Respondents Addressing Outcome	
	Learning Community (n = 71)	Stand Alone (n = 39)
Apply a variety of concepts/texts/contexts and perspectives to solving problems and thinking about issues	54.9%	15.4%
Connect one's own life experience, ideas and abilities with those that others bring	21.1%	17.9%
Understand and value the learning process for oneself and for others	63.4%	71.8%
Make connections with external world and lifelong social issues	54.9	59.0%

and in its stand alone versions of Chemistry and Social Sciences generally cited “connecting learning with social issues” as one of the outcomes they valued (76.2%, 71.4%, and 66.7% respectively). In contrast, although 42.9 percent of the students in the Learning Community cited “applying a variety of perspectives” as an outcome they valued from the course, none of the Chemistry students and only 11.1 percent of the Social Sciences students cited this as an outcome.

These results suggest that the intentional integration of discreet courses does produce a different kind of awareness and, thus, students’ perceptions of their own learning. It echoes the observations of faculty in the focus group, who believed that the structure of Learning Communities – both observation of and practice in using more than one discipline to address issues – produces a different kind of intellectual activity from students. A summary of this just-completed study was provided in Fall 2007 to college committees, particularly those charged with continuing assessment of our General Education program.

Transfer Student Study

In Spring 2007, Skagit Valley College worked with the Office of Survey Research (OSR) at Western Washington University (WWU) in neighboring Bellingham, Washington, to conduct two student focus groups. The research was designed to explore the extent to which transfer students’ learning experiences in Learning Communities at SVC supported their academic progress at WWU.

Western Washington University provided the college with a list of students who transferred to Western from SVC in Fall 2006. For the focus groups, SVC prepared samples based on the number of Learning Communities taken by the students while attending SVC. The first group was a stratified sample of students with a fairly equal representation of students who had taken more than one, only one, or no Learning Community at SVC. The second focus group consisted of students who had taken two or more Learning Communities. Only students who had completed at least 30 credits at SVC were included in the sample lists. WWU organized the two focus groups, with nine students attending each session.

The WWU preliminary report from the focus groups (Clark, 2007) provided additional support for the findings from studies conducted over the past several decades. For

example, the report indicated that students who took Learning Communities stated they have learned to make connections and to apply what they have learned to another topic or to the real world. Students noted that the emphasis on critical thinking at SVC helped them with their classes at WWU because they learned how to analyze information, make connections, and synthesize major ideas. Students reported that the composition Learning Communities challenged them to think and write analytically and that their SVC research and writing experiences helped prepare them for research and writing assignments at WWU. In addition, students reported that the group work required in Learning Communities prepared them for the group work assignments at Western. A summary of this recently completed study was provided in Fall 2007 to the college community, particularly the committee charged with the continuing assessment of the General Education program.

The information provided by WWU enabled an examination of student performance at the four-year institution based on the students’ academic experience at SVC. As shown in Table 5, while there were no significant differences between students’ transfer-in GPA based on the number of LCs they took at SVC, students who took two or more Learning Communities at Skagit had a higher (although not statistically significant) GPA at WWU than students who took only one Learning Community. Similarly, students who took one Learning Community had a higher GPA than students who had taken no LC, but again this difference was not significant. GPA after two terms was also examined based on whether the student completed an SVC degree or not. The data presented in the second section of Table 5 indicates students who completed a degree at Skagit Valley College had significantly higher GPAs during their first two terms at WWU. Since students must complete three Learning Communities to meet the college’s transfer degree requirements, this data presents some interesting questions that warrant further analysis.

Future Assessments

The college has recently embarked on two new projects designed to assess learning outcomes associated with Learning Communities. The first is a study of counselor-enhanced developmental Learning Communities and the second is a project sponsored by The Washington Center for the Im-

Table 5. Grade Point Average for Transfer Students (N = 153)

	Learning Communities Taken			Significance
	None	One	Two or More	
Transferred into WWU	3.32	2.87	3.24	.152
At WWU After Two Terms	2.43	2.77	2.98	.362
	SVC Degree Awarded			Significance
	No	Yes		
Transferred into WWU	3.15	3.19		.686
At WWU After Two Terms	2.54	3.14		.000

Note: Only students who had completed at least 40 quarter credits at SVC were included in the analyses.

provement of Undergraduate Education to assess interdisciplinary learning outcomes.

Counselor-Enhanced Developmental Learning Communities

The college's CCSSE data, as noted previously, have consistently indicated that students who have taken an LC are more engaged in their learning, perceive they have made greater skill gains, and engage with faculty more than their peers who have not taken an LC. On the other hand, the college's CCSSE results have shown that students rate the support they get from the college as average. Building on this data, a small group of administrators and faculty, with support from the President, developed the Counselor-Enhanced Developmental Learning Communities model that integrates advising and student success skills into developmental Learning Communities. Developmental Learning Communities include at least one below-college level course in English, Mathematics or Reading. The goals of this project are to:

1. Support our challenged students in their successful completion of developmental education requirements;
2. Improve retention of new students;
3. Improve persistence to academic level work and to certificate and degree completion;
4. Develop academic faculty advising skills;
5. Strengthen counselors' understanding of the value of Learning Communities; and
6. Gather data on efficacy of Learning Communities for the purpose of analyzing and instituting best practices for student success.

Student success will be measured by grades in the core developmental course(s) (English and/or Math), transition to and GPA in subsequent core courses in the sequence, retention from quarter to quarter, and persistence to degree. Student and faculty perceptions of the value-added from taking developmental courses in a Learning Community format will also be measured using surveys and exit interviews.

Assessment of Learning Communities Project

Skagit Valley College is one of twenty-three colleges participating in the National Project on Assessing Learning, sponsored by The Washington Center for Improving the Quality of Undergraduate Education. In addition to the broader project goals, SVC's interests are to establish a systematic, shared framework for discussing student work and to develop a rigorous methodology for assessing integrative learning that can be used for individual courses, Learning Communities, and co-curricular experiences. While the project does not currently have a quantitative element, a rubric-based assessment is in development. A long-term interest of the college is to explore adapting the model for program level assessment.

The desire to have quantifiable data is especially rel-

evant to SVC since our newly-revised General Education Values and Outcomes now explicitly recognize "Integration and Application" as part of core abilities. For example, the college expects that SVC graduates will be able to 1) identify and evaluate the relationships among different perspectives within a field of study or among different fields of study, 2) integrate concepts and analytical frameworks from multiple perspectives to develop more comprehensive descriptions, multi-causal explanations, new interpretations, or deeper explorations of issues, and 3) analyze and reflect upon insights gained from integrating multiple perspectives in a purposeful project or experience.

During the first year of the project, a team of faculty from SVC used student work from their Learning Communities – writing, group projects, videos of student panels – to learn the assessment protocols described in *The Evidence Process*, developed by the Evidence Project staff (2001) at the Harvard Graduate School of Education. In addition to paying careful and respectful attention to students' work, faculty discussed what constitutes evidence of the disciplinary grounding in the work and evidence of that grounding being used to provide a deeper understanding of the issues.

Subsequently, faculty identified several areas for improvement in their courses, including assignment design, explicit explanations of the nature of disciplinary and interdisciplinary work, and possible adaptations of the protocol for students use in peer reviews and self-reflections. During the second year of the project, the team will explore how the protocol might be adapted to assess the extent to which students demonstrate the integration and application outcomes specified in the revised General Education Learning Outcomes.

Final Thoughts

In reviewing 20 years of our own research about Learning Communities, we have seen the shift in emphasis from small studies to more complex assessments. We have also discovered that, despite its limitations, the research does suggest consistent patterns about learning outcomes in Learning Communities. Based on the results of surveys, focus groups, and student writing, faculty and students consistently indicate that taking Learning Communities results in higher levels of effort and engagement. Both students and faculty believe that Learning Communities support gains in thinking critically and enable students to conduct more complex analyses. They see broader connections and can recognize and are willing to use multiple perspectives. They are more likely to collaborate with peers, including with those who are different from themselves, and to value diverse perspectives and approaches. They communicate with people from diverse backgrounds more so than their counterparts who do not take Learning Communities. Our most recent data about transfer students also suggests that students who complete Learning Communities at Skagit perform well at transfer institutions.

In terms of process, the review also confirmed the importance of a thoughtful, rigorous culture of evidence. As a

multi-campus college with a large number of initiatives simultaneously underway, we have had to learn about the importance of district-wide studies, careful archiving of research, systematic sharing of results, including results of studies undertaken independently by faculty or staff, and periodic review of all studies for what they can tell us. Our review also confirmed the importance of the college's decision to establish a committee responsible for overseeing assessment of General Education outcomes, particularly those for integrative learning since *interdisciplinary* learning – and thus Learning Communities – fall outside *disciplinary* and departmental bounds and therefore sometimes “through the cracks.” And finally, it is clear that while faculty often are unable to conduct extensive research projects, their participation is a valuable strategy for increasing awareness of the importance of the foundations of effective research as well as its role in improving student learning.

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