

When Faculty Assess Integrative Learning

Faculty Inquiry to Improve Learning Community Practice

BY EMILY LARDNER AND GILLIES MALNARICH

To assess ... in its origin literally means to sit down beside [late ME < ML < assess(us) ptp. of assidere (as + sidere)]. In its development it has come to mean using careful judgment based on close observation that comes from sitting down beside.

—Alverno College Faculty

Emily Lardner and Gillies Malnarich, co-directors of the Washington Center for Improving Undergraduate Education (www.evergreen.edu/washcenter), lead its national learning-communities work and other system-wide curricular reform initiatives. Both have taught for many years: Lardner teaches academic writing and composition, and Malnarich teaches sociology and pre-collegiate/entry-level studies. They currently teach in The Evergreen State College's Evening and Weekend Studies Program.

The “little blue book”—an affectionate title used by admirers of Student Assessment-as-Learning at Alverno College—is written (rather stunningly) “by the Alverno College Faculty.” The story behind this paradigm-shifting work on assessment underscores the vital role faculty inquiry plays in institutional and system-wide educational reform—if this inquiry is organized to think through pressing questions.

For those unfamiliar with how Alverno—a small, urban, Catholic liberal arts college for women—came to re-imagine its mission in the early 1970s, when the value of college in general and a liberal arts education in particular were being scrutinized nationally, the highlights are instructive. Sister Joel Read, then president of Alverno, after listening to several years of faculty conversations, made two forward-thinking decisions.



First, she reorganized the college's class schedule so that Friday afternoons would be set aside for campus-wide discussion. Second, she invited academic departments to investigate the kinds of questions professionals in their field of study were asking and whether related problems and issues were featured in the department's general education courses and in work for the major.

As readers of the little blue book discover, the Alverno faculty's deliberations—prompted by overarching questions that probed the connections between professional practice, education for citizenship, and academic learning—led them to make a key distinction between possessing knowledge and using knowledge. Tests and examinations, while providing evidence of the first, remained silent on the second—that is, students' developing ability to integrate and use what they know in multiple real-world contexts.

This realization moved Alverno faculty inquiry into uncharted territory. Over thirty years later that territory has become the familiar ground of performance-based assessments and students' "taking responsibility for learning" in relation to clearly articulated learning outcomes at beginning, developing, and advanced levels. This radical rethinking of teaching, learning, and assessment became known as "abilities-based education."

Now thoroughly embedded in the lexicon of higher education, the question that the Alverno faculty members asked themselves—what should every graduating student know and be able to do?—has recently been answered by roomfuls of educators at meetings convened by the Association of American Colleges and Universities (AAC&U). Their responses led to the four essential learning outcomes identified in *College Learning in the New Global Century*: knowledge of human cultures and the natural and physical world, intellectual and practical skills, personal and social responsibility, and integrative learning.

As AAC&U president Carol Geary Schneider commented in a recent *Peer Review* editorial, while the first three learn-

ing outcomes represent enduring liberal education outcomes, integrative learning "marks a notable shift in the practice of the liberal arts from language we used to use—understanding,

appreciating, comprehending, remembering—to actually being able to do. Students must know how to apply knowledge and to use it in new contexts." The emphasis on doing integrative learning signals what we think needs to inform all faculty-inquiry agendas, not only those directed at learning community practice.

In this article, we examine how a set of questions from a collaborative assessment protocol used by teachers in the Harvard Graduate School of Education's Project Zero—and adapted by Veronica Boix-Mansilla for Washington Center's National Project on Assessing Learning in Learning Communities—led to valuable insights regarding the fourth essential learning outcome associated with college learning for this century: integrative learning.

Learning Communities as an Educational Reform Strategy

Our definition of learning communities is simple: a cohort of students enrolled in two or more classes in which they experience at least one explicitly designed opportunity for integrative learning. Our work with campuses is guided by a theory of change focusing on three dimensions

of program design: strategically developed student cohorts, at least two integrative projects, and a professional learning community or faculty inquiry group for teachers involved in the program. Situating learning communities at key points in the curriculum is critical—building as it does on institutional information about the pathways students navigate on their way to graduation and the curricular trouble-spots they encounter on the way. But in this project, we focused on developing faculty inquiry groups to assess integrative learning.

Assessing Learning in Learning Communities

The goal of the National Assessment Project was to address a gap in the literature. Early descriptions of learning communi-

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ties as a curricular reform strategy focused on their potential for fostering interdisciplinary and integrative thinking. A widely shared expectation among early learning community leaders was that re-organizing curricular structures—i.e. linking two classes and enrolling a single cohort of students—would automatically prompt changes in the curriculum and learning outcomes.

But in their review of research on learning community assessments, Kathe Taylor and her colleagues concluded that this is not guaranteed and that “learning community research and assessment can and should probe more deeply into the nature of learning community interventions, and the nature of their impact on the learning of students.” Sue Scrivener and her colleagues echoed this recommendation in their study of a freshman learning community program at Kingsborough Community College, noting that while student cohorts increase persistence rates, the quality of the learning community offerings varied widely.

In planning the National Assessment Project, we sought to foster among learning community practitioners the kind of involvement in assessing student learning experienced by the Alverno faculty. Building on the classic Alverno question—what do we want students to know and be able to do?—we asked, what kind of learning do learning communities make possible? We imagined that on each of the campuses involved in the project, teaching teams would sit down with student work from their learning community program to investigate integrative learning. National project meetings would be occasions to share campus findings and to push our collaborative inquiry toward the least chartered territory within learning community practice—the what and how of integrative and interdisciplinary learning.

The project was open to any campus with an established learning community program. But when we posted an invitation to participate on the national learning community list-serve, we expected no more than ten campuses to respond. After all, we were asking the volunteers to support their own

participation in national gatherings and regular conference calls, as well as to convene campus-based conversations about student work using a structured protocol. In exchange, we could provide rich collaborative learning opportunities but only modest stipends.

We were surprised by the response to our invitation—surprised at both the number and range of institutions that wanted to participate. Of the twenty-seven campuses that began the project in fall 2006, twenty were still active at the closing retreat in March 2008—eleven community colleges and nine four-year colleges and universities.

Assessing Integrative and/or Interdisciplinary Learning Using the Protocol

Interdisciplinary understanding is the “capacity to integrate knowledge and modes of thinking from two or more disciplines in order to produce a cognitive advancement—to explain phenomena, fashion products, solve problems in ways that would have been unviable through a single disciplinary means.”

—Veronica Boix-Mansilla

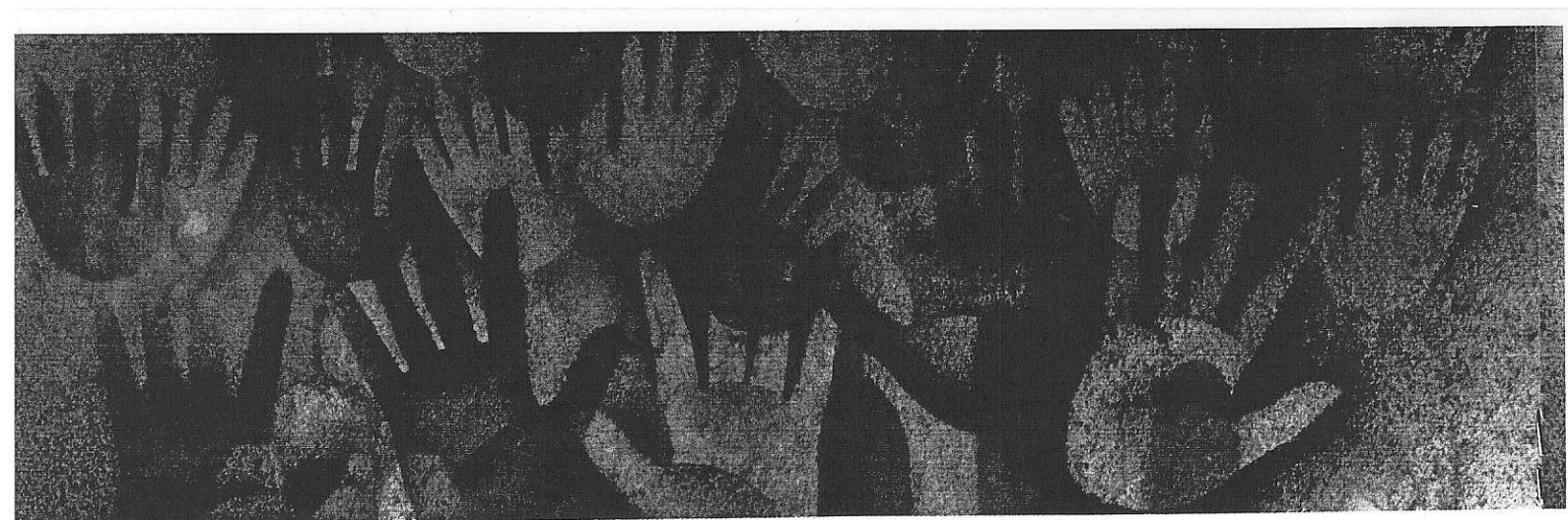
The primary purpose of our first project gathering was to become familiar with the collaborative assessment protocol.

Participants flew into Seattle from all over the U.S., began to get acquainted over dinner and discussion on the first night, and spent the next day looking at samples of student work from three established learning community programs.

Veronica Boix-Mansilla (2009) developed the collaborative assessment protocol we were using by weaving together assessments developed by Harvard Project Zero and a definition of interdisciplinary understanding derived from their research. What we all immediately noticed was how deeply the protocol organized our conversation—a marked departure from more free-wheeling conversations about teaching, learning and assessment.

The protocol has three sections. The first, “Getting Acquainted,” is designed to get teachers from disciplines and

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courses across the curriculum attuned to each other and to a student's work. After a brief introduction to the assignment that produced the work, participants are prompted to share what they notice about the selection, then what they value, and then to raise questions. The second section of the protocol, "Zooming In," focuses attention on the four core elements of interdisciplinary work: the purpose of the piece of work, the ways in which two or more disciplines or areas of expertise inform the work, the ways in which these disciplines or areas are integrated, and the student's reflections about the work. The third section, "Stepping Back," invites deeper inquiry about the implications for teaching and learning raised by the process.

Distinguishing Between Interdisciplinary and Integrative Understanding

Early in the national gathering, attention shifted from looking at student work to looking at the protocol itself, since some questioned its value. The most problematic section was the one focused on disciplines and areas of expertise and the definition of interdisciplinary learning. As we reflect on why the definition was so contentious, at least initially, we think these issues were in play:

- Among faculty drawn to teach in learning communities are some who resist the limitations of traditional ways of organizing knowledge and a course structure that leaves in students' hands the work of making meaningful connections across the curriculum. "Interdisciplinary" learning in the context of learning community practice has always included connotations of learning that goes beyond the academic disciplines. To return to thinking about the disciplinary grounding for interdisciplinary work felt reductive to some faculty—and even irrelevant, given the kind of learning they wanted students to experience.
- While organizing students into cohorts has helped learning communities increase retention for beginning students, on many campuses (especially at community colleges) these stu-

dents frequently take courses that emphasize skill development. A focus on the disciplines gave rise to questions about how these skills would be characterized. If courses in reading or

study skills weren't providing "disciplinary grounding," what were they contributing? More importantly, how would these courses and related faculty expertise become visible in a protocol that emphasized disciplinary grounding and integration?

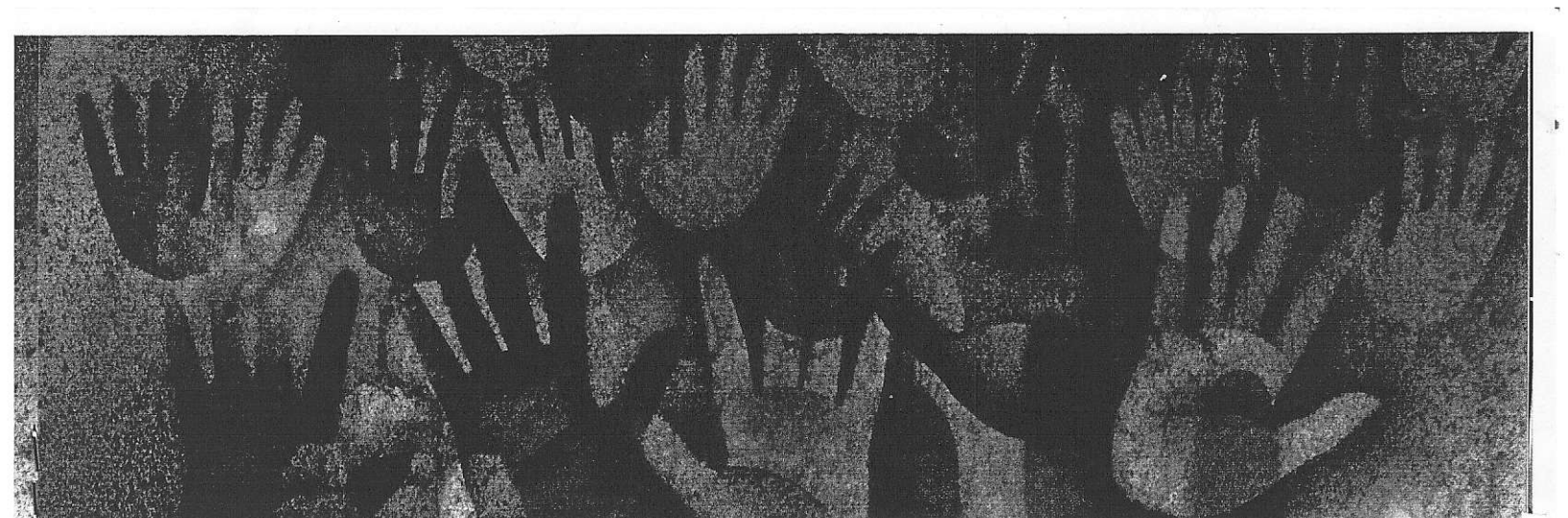
- Although the protocol focused faculty attention on what students demonstrate that they know how to do rather than on what we intended or thought students might do in response to particular assignments, staying focused on student work proved to be challenging. It was hard because, as one team hypothesized, faculty wear the "lenses" of what students are "supposed to do." And because the protocol removed our "supposed-to" lenses, it was "an excellent (and efficient) way to assess what actually happens rather than what is supposed to happen. Then we can look at our assignments and go 'No wonder!' Then tweak them."

After a lot of conversation in which we tried to stretch the meaning of interdisciplinary understanding to include all the things we saw students integrating in their work, we reached a simple but illuminating conclusion: integrative learning

includes but is not limited to interdisciplinary learning. Our butcher-paper poster included the following insights:

- Interdisciplinary learning integrates disciplinary learning and modes of inquiry specific to each discipline.
- Interdisciplinary learning is one kind of integrative learning.
- While integrative learning can be interdisciplinary, it can pull from other areas such as skill-based expertise.
- Integrative learning can mean working with multiple perspectives even from within one discipline.
- Integrative learning can take the form of integrating personal experiences with academic modes of inquiry.

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Valuing Specificity in Assignment Design

One of the most productive sessions at a project gathering was spent puzzling over what precisely we want students to use as the basis for integrative or interdisciplinary work, drawing upon our specific disciplines and courses. With practice, the learning community teams involved in the National Assessment Project became more adept at articulating their discipline's fundamental concepts, methods, and forms, the precursor to robust integrative or interdisciplinary work.

Faculty teaching writing courses, for instance, struggled to define what evidence of disciplinary grounding in composition looks like: what is the difference between a "well-written" paper in psychology and a paper that results from students' integrating what they are learning from a composition class and a psychology class? They moved towards a conception of academic writing as inherently social: academic writers write about issues in the context of larger conversations. Consequently, a fundamental compositional skill is to be able to put one's own thinking into the context of other writers' thinking—at beginning, developing, and advanced levels.

We were also interested in the kinds of assignments that prompted students most effectively. Our conversations were guided by Boix-Mansilla's framework of productive shifts, including moving from generic themes to powerful, multifaceted issues; from assignments seeking information to ones seeking deep understanding; and from naming disciplines to encouraging students to make use of core disciplinary concepts, methods, and forms of communication.

"Designing assignments that invite integrative or interdisciplinary learning is an art form as well as a pedagogical skill that has yet to be discovered, let alone mastered. We need to do this."

—Participant

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As one participant noted, "The more concrete the prompts, the easier it is for students to integrate." In a learning community that included an Introduction to Algebra course and a critical thinking course, for instance, students were asked to

collect data about their daily use of three electrical appliances, calculate the energy consumption of these three appliances for a week, and then reduce their use of them. They were also asked to write an essay discussing the relationship between their personal energy consumption and the environment, as well as the personal impact of reducing their use of the appliances.

By reviewing student work with the protocol, Evelyn Burg, Marisa Klages, and Patricia Sokolski noticed that a few students focused on the data they collected, more made general arguments about conservation, but hardly anyone could make an argument that demonstrated quantitative literacy by using numerical data as evidence for their claims. But even though "students were not able to make these connections at the start," after subsequent assignments and discussions, they did.

Faculty Inquiry as a Means for Institutional Change

Washington Center's National Assessment Project brought together campus teams keenly interested in implementing

new insights on assessing learning in learning communities. But the work's impact extended beyond those communities to the larger campuses. The final campus team reports indicate the scope of changes underway. Some, while predictable from a project design standpoint, represent hard-to-achieve outcomes, as educators involved in institutional-change initiatives will appreciate.

Among these, the fact that project participants moved from a focus on logistical details to examining student work for evidence of integration marks a profound departure from how faculty typically spend their out-of-class time. The experience of participating in cross-departmental conversations has helped faculty appreciate how challenging deep disciplinary learning, let



along integrative learning, is for novice learners. We believe that these preliminary conversations are essential if we are to appreciate how overarching campus-wide learning goals, rather than being an imposed series of “performance indicators,” can be a way to enrich all student learning—the same discovery made by Alverno College faculty.

Above all, every campus team has been reminded of why ongoing faculty inquiry is a necessary condition of deep change. There is no proxy for practicing critical reflective inquiry grounded in questions that arise from practice. To work together on designing integrative assignments that invite students to learn something related to real-world problems, issues, and enduring questions gives coherence to a curriculum. For faculty whose teaching has been mostly a private endeavor until becoming involved in a learning community, assignment-design workshops that start with a structured review of student work introduce them to the value of collaborative, scholarly approaches to teaching, learning, and assessing.

Other changes named in teams’ final reports have the potential to institutionalize national project insights. For instance, some learning community coordinators, especially from schools with long-established programs such as North Seattle Community College, LaGuardia Community College, and Skagit Valley College, created new forms for learning community course proposals that emphasize intentionally designed integrative assignments. At Skagit Valley, for instance, the course proposal form now asks “how students will learn to integrate” ideas, rather than asking—as the former version did—how faculty will integrate course content.

Promising Grounds for Further Faculty Inquiry

As we re-read campus teams’ final reports and look at the integrative assignment modules faculty generously shared with colleagues in the national project and now through workshops and the Washington Center website (www.evergreen.edu/washcenter), we are paying close attention to three emerging developments:

- Effective assignment design needs to provide “scaffolding” for learning. This realization emerged when faculty, especially disciplinary specialists, examined student work in the company of colleagues who teach students foundational academic

skills. They began to focus on inter-related elements of assignment design: content knowledge, pedagogical content knowledge (typical difficulties students face when learning something new), and knowledge about how people learn.

- Assignment design is beginning to focus on “curricular trouble spots” within classes or, put another way, on the underlying conceptions that novice learners need to understand to advance in their studies. This drilling down is the course-level equivalent of strategically placing learning communities in the curriculum, and both are consistent with the National Research Council’s *How People Learn* and the follow-up studies on discipline-specific learning in mathematics, the sciences, and history.

- Assessment from the classroom to the department to the program to the institutional level—if student learning is the thread they’re following—engages faculty. The work of the agricultural and biosystem engineering curriculum committee at Iowa State University, for example, used a modified form of the assessment protocol to review assignments

from each of the core courses to develop a systematic curricular review process. Other campuses are also using adapted versions of the collaborative assessment protocol to supplement student satisfaction surveys and pre- and post-testing.

In reflecting on the experience at Iowa State, Kevin Saunders used an expression appropriate to his land-grant institution: He speaks of involving key individuals in this new era of learning communities who can serve as “bell cows”—those who “sound the way for others to follow.”

In the shadow of Mount Si, at the foot of the Cascades, where faculty from campuses across Washington State gathered for the Washington Center’s annual spring curriculum planning retreat, we could hear the bells ringing from Iowa to New York

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to Washington to many states in between. We were examining student work from a learning community designed for prospective early childhood educators at Kingsborough Community College, which included courses in developmental psychology, introductory biology, and an occupational seminar. We looked for evidence of disciplinary grounding and sites of integration. Then we read these learning community practitioners' account of what they had intended with their original assignment and what they thought after reviewing student work using the protocol. If you go to the Washington Center website, you too will

see how these faculty turned a well-intentioned but underdeveloped integrative assignment into an impressive simulated exercise by inviting students to transport their learning into the (imagined) professional practice of writing a letter to anxious parents regarding cochlear implants.

Now another group of faculty, learning from those before them, are ready to design a new iteration of assignments designed to encourage integrative learning and—if we continue to learn from one another—prepare graduates who are able integrative thinkers. ☐

RESOURCES

- Alverno College Faculty. (1994). *Student Assessment-as-Learning at Alverno College*. Milwaukee: Alverno College Institute.
- Boix-Mansilla, Veronica. (2007). "Disciplinary Grounding in Interdisciplinary Work." Retrieved from <http://www.evergreen.edu/washcenter/resources/upload/Ever1020072.ppt>
- Boix-Mansilla, Veronica. "Productive Shifts: Faculty Growth through Collaborative Assessment of Student Interdisciplinary Work." *Journal of Learning Communities Research*, December 2008/January 2009, 21-26.
- Bransford, John D., Brown, Ann L., and Cocking, Rodney R. (eds.); Committee on Developments in the Science of Learning, Commission on Behavioral and Social Sciences and Education, National Research Council. (1999.) *How People Learn: Brain, Mind, Experience, and School*. Washington DC: National Academy Press.
- Burg, E., Klages, M., and Sokolski, P. "Beyond 'Parallel Play': Creating a Realistic Model of Integrative Learning with Community College Freshmen." *Journal of Learning Communities Research*, December 2008/January 2009, 63-73.
- *College Learning in the New Global Century*. Association of American Colleges and Universities' 2007 Report from the Liberal Education and America's Promise Initiative. Retrieved from http://www.aacu.org/advocacy/leap/documents/Global-Century_final.pdf.
- Lardner, E. and Malnarich, G. (2008). "A New Era in Learning Community Work: Why the Pedagogy of Intentional Integration Matters." *Change*, 40(4), 30-37.
- Lardner, E. and Malnarich, G. "Assessing Integrative Learning: Insights from Washington Center's National Project on Assessing Learning in Learning Communities." *Journal of Learning Communities Research*, December 2008/January 2009, 1-20.
- Hill, Patrick. 1985. "The Rationale for Learning Communities." Retrieved from www.evergreen.edu/washcenter/resources/upload/rationale1.pdf.
- Saunders, K. et al. "Assessing Student Work to Support Curriculum Development: An Engineering Case Study." *Journal of Learning Communities Research*, December 2008/January 2009, 47-62.
- Scrivener, S. et al. (2008) "A Good Start: Two Year Effects of a Freshman Learning Community Program at Kingsborough Community College." Retrieved from www.mdrc.org.
- Schneider, Carol Geary. 2008. "From the President." Retrieved from www.aacu.org/peerreview/pr-fa08/pr-fa08_president.cfm
- Smith, Barbara; MacGregor, Jean; Matthews, Roberta; and Gabelnick, Faith. (2004). *Learning Communities: Reforming Undergraduate Education*. San Francisco: Jossey-Bass.
- Taylor, Kathe, et al. (2003). *Learning Community Research and Assessment: What We Know Now*. National Learning Communities Project Monograph Series. Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education, in cooperation with the American Association for Higher Education.
- Washington Center website: www.evergreen.edu/washcenter.