Keeping It Real and Getting Muddy: First-Year Composition Meets Physical Geography in Stanley Park

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Interdisciplinary Thinking: Bridging the Two-Cultures Divide Through Student Engagement

In a 2005 essay in *The Chronicle of Higher Education*, David Barash marked the 25th anniversary of C. P. Snow's death by taking stock of the two-cultures divide in higher education. Citing examples of disciplinary entrenchment, he concluded that "higher education—like politics—is more polarized than ever." Still, Barash acknowledged some promising examples of interdisciplinary efforts to bridge science and the humanities, among them "the nascent field of eco-criticism, which links ecology and literature." The related field of eco-composition similarly bridges ecology and rhetoric and composition studies. Like these emerging interdisciplinary fields, various pedagogical trends, including co-taught learning communities, civic engagement, and place-based education, reflect the belief that a liberal arts education should enable all students to develop interdisciplinary critical thinking skills. E. O. Wilson coined the term "consilience" to describe "the achievement of conceptual unity among the disciplines. . . . Wilson believes that the quest to understand all aspects of the universe and to reconcile the knowledge we have gained through our different disciplines will bring together the sciences and the humanities" (Craige, 1999, pp. 297–298). "Consilience," then, is the critical thinking outcome of interdisciplinary understanding, which has been defined as "the capacity to integrate knowledge and modes of thinking in two or more disciplines or established areas of expertise to produce a cognitive advancement—such as explaining a phenomenon, solving a problem, or creating a product—in ways that would have been impossible or unlikely through single disciplinary means" (Boix Mansilla, Miller, & Gardner, 2000, p. 219).

When first-year students enter their undergraduate institutions, they may not be aware of the two-cultures divide or the goals of interdisciplinary higher education. What they do realize immediately, if their institution requires general education courses, is that their undergraduate coursework is asking them to speak multiple disciplinary languages. The English major must fulfill a lab science requirement, and the chemistry major must take a writing class. These general education requirements, like interdisciplinary fields and pedagogies, are motivated by the importance of interdisciplinary thinking in real-world problem solving. However, interdisciplinary thinking is difficult to cultivate in a climate where some students do not begin their college careers open to learning about disciplines outside their major fields or career paths. Research on the student conditions supportive of interdisciplinary thinking shows that curiosity, respect, openness, patience, and diligence are key (Spelt, 2009,

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p. 375). These conditions depend on student enthusiasm, but one challenge for instructors of introductory general education courses is low-level student engagement. The two-cultures divide in undergraduate education is exacerbated by students' perceptions, especially common in their first year, that the discourses of—and ways of thinking in—disciplines outside of their majors are not relevant to their academic and professional futures.

Disengagement can be further exacerbated by students feeling outside their disciplinary comfort zones. Some of our students who entered college with interests in the humanities reported they faced the required lab sciences with a mix of anxiety, disinterest and dread, claiming they "don't do science" or "the outdoors," and see the lab science requirement as little more than a hurdle that must be overcome in the process of attaining something more relevant—a degree and ultimately a job. This resistance may be especially pronounced in a physical geography course, where distrust of science intersects with American insularity and exceptionalism, and students' limited knowledge of the world can reinforce the sense that the subject matter is not relevant to their future work. Similarly, the current focus on STEM fields as important paths to employment is one reason some undergraduates give for seeing little value in required humanities courses. As a requirement shared by most firstvear students, the English composition classroom is one site of such resistance. Wade Dorman and Susan Fox Dorman argued that "writing instruction, because it is isolated in most universities from its integral relationship with the thinking and producing processes within disciplines, is especially likely to alienate students," an alienation they claim prevents deep learning: "students who see no connection between learning and life don't try to store the learning for life, but only through the final exam, so they cram it all into their short-term memory" (Dorman & Dorman, 1997, p. 118). In other words, interdisciplinary connections and real-world applications can improve student engagement, which in turn enables critical thinking and meaningful learning. Establishing connection and relevance is particularly important for firstyear students in their first semester as they transition from high school to college in introductory general education courses, which challenge them to think in new and possibly unfamiliar ways just at the moment in their college careers when their sense of alienation tends to be most pronounced.

Snow worried that scientists and humanists could not understand each other, but do students allied with narrowly defined specializations *care* about achieving such understanding? As we aim to develop students' critical thinking cognitive skills, we must also consider how to cultivate the attributes of those disposed to critical thinking. The American Philosophical Association (APA) has identified those attributes as "open-mindedness, inquisitiveness, cognitive maturity, truth-seeking, analyticity, systematicity, and critical thinking self-confidence" (as cited in Ernst & Monroe, 2004, p. 509). These attributes demonstrate, as Ernst and Monroe explained, "that it is not enough for a person to be able to think critically; the person has to be willing and inclined to use his/her thinking skills" (p. 509) Engagement, therefore, is a foundational element in students' learning experience; without it, interdisciplinary critical thinking does not follow.

The curriculum and pedagogy of first-year courses communicate to new students an institution's values. As Adler-Kassner, Crooks, and Watters (1997) noted,

"attending college means for many a transition to being a fuller participant in a larger social world, and the college experience is important in shaping that participation" (p. 4). Interdisciplinary courses model for new students the importance of approaching problems from multiple viewpoints. Similarly, civic engagement-based courses emphasize to first-year students that community participation and citizenship practices are integral to their studies. David Orr argued that a "genuine liberal arts education will foster a sense of connectedness, implicatedness, and ecological citizenship, and will provide the competence to act on such knowledge" (as cited in Long, 2001, p. 132). Place-based courses revolve around a core value of responsibility and connection to place. Interdisciplinary place-based learning communities bridging the sciences and humanities can infuse general education classes with a sense of relevance, enhancing student engagement while challenging the two-culture divide by modeling inquiry that draws on multiple perspectives.

This report details how place-based learning contributed to first-year students' development of agency, voice, critical thinking, and civic engagement in a recent learning community linking physical geography with English composition at Westfield State University. The course model is worth duplicating as a strategy of orienting first-year students to their new campus and community, demonstrating the relevance of general education classes to their lives, encouraging development of the attributes foundational to interdisciplinary critical thinking, and developing rhetorical flexibility that will help them navigate the various discourse communities they will encounter in their college careers and beyond. The report offers an overview of the course followed by a rationale for this learning community model drawing on student writing and contextualized in broader pedagogical discussions about place-based education, civic engagement, and ecocomposition. The report concludes with recommendations for implementation.

A Learning Community Based in Stanley Park

This pilot course was inspired by both instructors' interests in civic engagement and place-based education, which draws on interdisciplinary inquiry by "immers[ing] students in local heritage, cultures, landscapes, opportunities and experiences, using these as a foundation for the study of language arts, mathematics, social studies, science and other subjects across the curriculum" (Center for Place-based Learning and Community Engagement, n.d.). Place-based education has proven successful in increasing student engagement. David Sobel (2014) argued that place-based education is to conventional education as *terroir* is to fast food. *Terroir*, a wine connoisseur's term referring to the distinctive flavor a region's soil gives its grapes and thus its wine, can also refer more generally to local flavor, particularity, and distinctiveness. Sobel advocates education programs that draw on local place to teach broader curriculum concepts, establishing for students a sense of connection to their community and relevance to their studies while fostering civic engagement.

One particularly successful model for place-based education uses the environment as an integrating context across disciplines (Children, Youth, and Development Center for Research and Design, 2007). Ernst and Monroe (2004) reported positive correlation between environment-as-integrating-context pedagogy and student development of critical thinking skills: Teachers and students consistently agreed that using the environment as an integrating context is an important aspect of building critical thinking skills and disposition toward critical thinking. The interdisciplinary nature of the environment provided opportunities for coordinating learning between subject areas and exploring connections among natural and social systems. Further, students and teachers found the environmental context useful for blurring the lines between classroom learning and real-life applications, thus providing opportunities for developing and using thinking skills through investigating the interactions among natural and social systems and the real world issues that stem from these interactions. (p. 516)

Drawing on the environment-as-integrating-context model, this pair of linked courses at Westfield State University focused on Stanley Park, a private, non-profit, 300-acre park adjacent to campus, located in the Westfield River watershed. Through placebased environmental learning and activism in Stanley Park, a shared cohort of firstsemester, first-year students considered how knowledge of place can feed directly into participation and decision-making in their communities.

Because course goals included reflecting on the meaning of citizenship, responsibility to place and community, and connecting with communities, both instructors began opening-day remarks by describing their own civic engagement related to the park. Brian Conz detailed his work as president of the Westfield River Watershed Association and previewed the organization's yearly Westfield River cleanup, and Vanessa Diana explained her work as race director for Run Stanley, a fundraiser 5k benefiting the Stanley Park wildlife sanctuary. Both events would serve as student volunteer opportunities and the subject of event review essays later in the semester. The class then walked together to the park for a photo scavenger hunt, setting off in teams to document (in photos to be posted to a class Facebook page) evidence that they had found various landmarks, animals, and trees in the park. Working in groups on this fun first-day activity, students formed social connections that blossomed into lasting friendships. One student reported, "I made friends that day that I kept all semester."¹ Spelt (2009) found that student conditions supportive of interdisciplinary thinking include social experiences and educational experiences; the team-taught, place-based learning community structure enhances both conditions through activities and assignments (p. 375).

Over the semester, the class periodically visited Stanley Park to survey environmental features through geography lab work in the park's wildlife sanctuary and to observe and write about people's interactions and activities at the park, an example of interdisciplinary critical thinking that investigates the connections among natural and social systems. Group sessions included a park history tour with the president of the Stanley Park Board of Directors, a nature-based mindfulness and meditation session with a faculty member in movement science, and guest lectures by practitioners specializing in invasive plant species and conservation laws related to land management. Individually, students interviewed Stanley Park Board members and staff, as well as community members whose professional responsibilities, expertise, or activities relate in some way to the park's environment or operations. They also read and wrote about studies from fields including psychology, regional planning, and education regarding the benefits of parks and nature exposure to health, well-being, and learning. As part of their lab science requirement, students measured, documented, and analyzed the park's landforms, hydrology, soils, vegetation, and climates. This lab work involved regular visits to the Park's wildlife sanctuary, use of walking trails, forays into its wetlands and along the banks of the Little River, and the writing of detailed lab reports of their methods, analysis and findings. Students were also required to participate in service projects benefiting the park.

Students practiced public writing, targeting real audiences in the community as they focused on studying, supporting, and teaching others about Stanley Park. Evidence of interdisciplinary research interests can be seen in student writing topics, which ranged from the threat of invasive plant species in the park's wildlife sanctuary to the mental health benefits of nature exposure, from harmful effects of feeding bread to waterfowl to fundraising strategies for non-profit organizations, from the role of parks in community crime reduction to the importance of multilingual signage in parks. Students became familiar with, and responsive to, the needs of their community, the geographic processes, flora and fauna of their region, the ways Stanley Park contributes to the university and regional community, and ways they can contribute to the park's efforts to maintain and improve its environment, facilities, programming, and resources. At the end of the semester, students selected favorite writings, including research-based proposals, to revise and share with the staff at Stanley Park, who have since published one of the student's event reviews in their newsletter and are considering acting on multiple student proposals.

The semester culminated with students hosting a thank-you brunch at the park, at which they shared highlights of their work with Stanley Park staff and board members, Westfield State University President and Vice President of Academic Affairs, and the mayor of Westfield. The Stanley Park leadership asked that the class be repeated to continue fostering positive relationships among students, the park staff, and the larger community served by the park.

Civic Engagement and Place: Orienting New Students

One motivation for developing this place-based learning community was to contribute to first-year students' development of sense of place, an understanding of one's identity in relation to place that supports development of interdisciplinary critical thinking skills and environmental ethics. Research suggests that curriculum bridging composition and the environment has a powerful long-term impact: students "who are encouraged through composition to explore and develop connections to nature inside their personal lives appear from the extant research to be more apt to thrive as scholars and post-graduate professionals" (Lindholdt, 2001, p. 242). Sense of place or place identity has been found to influence students' attitudes and values related to environmental sustainability and civic engagement (Lawrence, 2012). One study found "outdoor experiences that encourage appreciation of nature appear to have the most beneficial effects" on students' "attitudes and behaviors toward the natural world," especially when through a "structured class experience"

and when "a person com[es] to see [an] area as part of their identity, which in turn may lead to greater environmental responsibility" (Lawrence, 2012, pp. 93–94). Discussing educators' "efforts to create an environmentally literate citizenry," Ernst and Monroe (2004) drew on a 1978 UNESCO proclamation emphasizing the importance of interdisciplinary thinking: "In the face of complex environmental issues, environmental education does not advocate a particular solution or action, but instead facilitates a student's ability to draw on and synthesize knowledge and skills from a variety of subject areas to conduct inquiries, solve problems, and make decisions that lead to informed and responsible actions" (p. 509).

Using the local park as a resource to invoke sense of place, environmental responsibility and critical thinking about social spaces and relationships in the context of a structured class experience was ideal for a number of reasons. Among the most important of these is that it enabled students to form new associations linked to their personal experiences with local parks in their own hometowns. Understanding early in their university experience how parks and other public and natural places function as community amenities helps establish students not just as passive recipients of environmental goods, but as active participants in the maintenance of such places through their service or simply through their appreciation and responsible use of such sites. In this way, we sought to connect students to their own personal histories in places, to understandings of the widespread experience of parks and their potentially nurturing role in childhood, and to connect them to a place that has served that purpose and continues to serve that purpose in their new home, or at least the one they will inhabit for the next four years. A park that is open to the public is thus an ideal place to build appreciation for civic engagement.

Making discussions of place, stewardship, and civic engagement part of a lab science course reinforces and expands upon key outcomes inherent to scientific endeavor and the goals of the liberal arts institution. Among the Westfield State University course objectives that must be met for inclusion in the general education requirement as a lab science is that students will be able to "recognize, understand and appreciate the ethical issues and societal impacts of scientific endeavors." The importance of ethical dimensions of science takes on new meaning in the context of a civic engagement course where students begin with the directive that they should consider how they might positively influence their community through their work. This is especially relevant with physical geography given its attention to contemporary environmental crises and natural hazards. Students understand that these topics are of some urgency and that even if they do not pursue the field as a career, their everyday decisions and material practices link them to these processes and objects of concern. Such reflective self-awareness is a central element to critical thinking, which the APA defined as "the process of purposeful, self-regulatory judgment, which drives problem-solving and decision-making" (as cited in Ernst & Monroe, 2004, p. 508). Linking a first-year lab science to a writing course and a civic engagement course presents a unique opportunity to introduce the shared grammar of what might be called place-based environmental civics.² Such a shared grammar includes references to community stewardship and responsibility, the commons and the common good, participation and public service.

Interdisciplinary Critical Thinking and Consequentiality

Geography is of course a discipline centered in place-based pedagogy, but composition can be as well. Place-based writing pedagogy borrows from geography in "an interdisciplinary [approach] to ecological composition" called ecocomposition, which "turns to the 'hard sciences' in ways that composition has been resistant in the past. . . . Ecocomposition stands to turn to science as rhetoric and to engage natural sciences and 'hard' sciences in the exploration of rhetoric and writing" (Weisser & Dobrin, 2001, p. 14). First-year writing classes offer a rich opportunity to enhance new students' understanding of the relationships among various disciplines from the very start of their academic careers (Adler-Kassner et al., 1997, p. 4). More specifically, the field of ecocomposition in dialogue with one another" (Weisser & Dobrin, 2001, p. 2). A place-based learning community integrating composition with physical geography capitalizes on this opportunity to engage students in interdisciplinary thinking.

Moreover, civic engagement enhances student academic engagement. Paul Lindholdt (2001) explored the relationship between student engagement and "consequentiality" from the perspective of writing instruction, arguing that asking students to write or study language without any consequences attached to that work "is meaningless in a moral sense" and "academic' in the pejorative" (p. 236). The same can be said of coursework in the hard sciences that students perceive as an empty academic exercise. Lindholdt argued, however, that place-based approaches create "consequentiality" by "combin[ing] service learning with curricular opportunities to allow students to affiliate with nearby bioregions" (p. 236). This approach, he argued, will yield "emotional growth of those students [that] could prove to be a powerful stimulus for their writing and imbue composition with that missing consequentiality" (p. 245). A learning community pairing ecocomposition with physical geography deepens this opportunity for students to affiliate with their nearby bioregion.

In addition, critical thinking is enhanced in place-based approaches by broadening students' concepts of expertise. Holding classes in Stanley Park, hosting guest lectures by practitioners in the field, and incorporating conversations with park staff and patrons into early assignments exposed students to a range of arguments, standpoints, and perspectives to which they had to apply critical evaluation and analysis skills. These approaches also blurred the lines between classroom and community, between service and learning, an important goal because, as Ward and Wolf-Wendel (2007) argued, too often "service-learning relationships are about us (the campus) and them (the community) rather than mutually beneficial and egalitarian."

Writing in, about, and for the Park

The two-cultures divide suggests that students see no shared goals across the sciences and the humanities, but ecocomposition demonstrates to students that their real-world writing can contribute to a positive environmental change for the future, a goal that aligns the fields of writing and geography. Rita Julia Turner (2011) coined the term "critical ecoliteracy" to describe "an interdisciplinary model for critical

thinking" that includes, among other cognitive skills, "an understanding and appreciation of ecological and relational interdependence; ethical consciousness ... critical awareness of the role that language and discourse play in shaping attitudes and behaviors . . . a capacity for imagining creative alternative future paths; and a sense of agency to enact change." The writing assignments in this learning community drew on the field of ecocomposition, which considers how the teaching of writing can encourage student writers to see themselves as change agents. Framing writing in a civic engagement context further underscores the real-world impact student writers can make. As Gay Brack and Leanna Hall (1997) put it, service-learning composition can be a successful cure for the "empty assignment syndrome" (p. 143). And improved student engagement and sense of relevance are in turn essential to students' curiosity and diligence, attributes essential to critical thinking. Thus, ecocomposition encourages real-world writing that allows students to practice the communication skills central to interdisciplinary thinking, which Spelt (2009) identified as "learning" the language of discourse of different disciplines in order to be able to negotiate meaning, resolve epistemological differences, develop shared understanding, and communicate cognitive advancements to a broad audience" (p. 373).

Students in the Stanley Park learning community were told from the start that they would be creating collaboratively a collection of their writing for the park and its constituents, which would serve as a gesture of appreciation to give back to Stanley Park and a chance for their voices to be heard. The collection included at least one contribution from each student, a piece written earlier in the semester and revised for publication. These contributions were chosen from the four major English composition projects of the semester: an informative essay about natural elements of the park, historical details of the park, or social issues relevant to the park; an interview-based profile of someone served by or serving Stanley Park; a review of a cultural, educational, or athletic event at the park; or a research-based proposal to improve, support, or enhance the park and its impact on the community.

Spelt (2009) noted that scaffolded assignments "phased with gradual advancement" are among the learning conditions that support interdisciplinary thinking (p. 375). The writing assignments in the learning community were designed to build upon one another and grew increasingly complex. While the first introduced students to the benefits parks offer communities and individuals with such topics as "Nature Deficit Disorder" (Louv, 2008), ecotherapy, and green exercise, the second aimed to make students feel more connected to their local community and to explore ways the park enhances the quality of life of individuals, as well as some of the career and civic roles that might await them in their futures. The interview project also required students to ask community members for a S.W.O.T. analysis, discussing what they see as the strengths, weaknesses, opportunities and threats to Stanley Park. Those discussions later sparked proposal ideas, as did event reviews, which gave students concrete examples of existing programming in the park, and physical geography content. For example, a guest lecture on invasive plant species introduced students to a particular threat faced by the park, which some then chose to address in their proposals.

Lab reports presented students with the opportunity to hone their writing skills in a very different context. In these assignments, students had to adopt a systematic approach to presenting information and knowledge creation. They provided background on the lab exercise and goals of the investigation, made detailed descriptions of how data was collected, documented what conclusions were drawn and why, and addressed how the process could be refined and improved. The hope was that lab reports would provide both a complement and a contrast to the English Composition assignments.

On the complementary side of things, the lab reports, and the physical geography content more generally, helped to infuse the content of the English writing with the precision and objectivity embraced by science writing, as well as the rich lexicon of geographic terms used in landscape writing. Students in the course were required to adopt course vocabulary, to apply specific terms for data collection equipment and techniques, as well as specific geographic processes, place names, plant and animal species, and habitats. Labs in the course were arranged to correspond to the geographer's layered approach to landscape. This involves a three-dimensional conceptual model building upwards from landform, to soil, water, vegetation, climate and the built environment. This landscape model provides a framework for becoming intimate with a place's natural history in support of ecologist Tom Wessels' (1996) sense that "only when we understand the heritage of the land, and are able to interpret that heritage, does a real sense of place become possible" (p. 61).

Conversely, attempting to describe objectively the bio-physical environment provided a useful contrast to the reflective writing and social documentation of many of the composition assignments. Lab reports are systematic accounts of the processes undertaken to describe and explain empirically observed bio-physical phenomena while identifying the weaknesses and shortcomings of the methods. This gives students direct experience with the process of scientific knowledge creation and an intimacy with a key epistemological formation of the modern era (positivism), which is not easily achieved elsewhere. And yet, by undertaking the writing of technical science reports, students also come face to face with the challenges and shortcomings inherent to communicating scientific findings to the general public, underscoring the importance of rhetorical flexibility and the need to remain attentive to audience. Further, by making connections between the different writing contexts and genres, students were encouraged to recognize their roles (and fallibility!) as creators of knowledge, since they were drawing on direct experience and primary data they themselves recorded. In this way a crucial aspect of critical thinking is nurtured, namely, the ability to analyze and evaluate the basis of knowledge creation itself.

The scholarship on civic engagement and composition affirms that "students and instructors feel a greater sense of purpose and meaning in the belief that their work will have tangible results in the lives of others . . . [and develop] a greater sense of responsibility and accountability" (Adler-Kassner et al., 1997, p. 2). This sense of urgency is echoed in the comments of one student in the Stanley Park learning community, who said about a proposal, "I think it is the most important paper I have ever written and I want it to be taken seriously." Another student commented, "I feel like maybe by publishing this [paper] I can actually make a difference." Consistent with research on civic engagement-based composition, these students demonstrated higher-than-usual engagement and motivation, which has been linked to meaningful long-term learning (Dorman & Dorman, 1997) and inclination toward critical thinking (Ernst & Monroe, 2004). The students' high-quality academic writing conveyed a strong sense of purpose, which suggests what the APA terms "critical thinking self-confidence" (Ernst & Monroe, 2004, p. 509). Civic engagement composition introduces new college students to writing as a tool of citizenship. Paul Heilker (1997) called it "writing as social action" (p. 72), which Adler-Kassner et al. (1997) explained as using "the discourses they will actually need and that will have efficacy in the world outside the academy" (pp. 6–7). By pairing composition and geography, the learning community model demonstrates to students that gaining fluency in the discourse of geography enhances their ability to enact writing as social action on behalf of the park, interdisciplinary thinking in action.

One study reported student satisfaction with numerous aspects of "real" writing, among them, "students took pride in their final products" and "the writing made a genuine contribution to the community organization" (Bacon, 1997, p. 41). Students in the Stanley Park learning community echoed these sentiments. When asked why they had selected their chosen projects to revise and share with the Stanley Park staff, students explained, "I believe this topic is most important and should be brought to the attention of the public"; "I feel passionately about making people aware of the park's history"; and "I selected Nature Deficit Disorder because it's becoming a huge issue for children due to video games, media, and electronics. It is something that needs to be changed before it is too late." Sharing their work publicly and drawing on interdisciplinary perspectives to support their claims, students gained confidence in their ability to use writing and interdisciplinary research as tools of social action to bring about change.

Students' goal statements demonstrate confidence that their writing *can* bring about real change. When asked what they hope to achieve by sharing their work publicly, they responded:

- I really hope to make Legacy Weekend happen one day. Maybe I could head it or something.
- I hope to get a snowball rolling in starting to get many schools involved in place-based education.
- To get people to stop feeding bread to the ducks at Stanley.
- To get kids 12-17 years old to do more volunteer work in the park and get more involved in the community.

Lindholdt (2001) argued that "[t]o gain greater consequentiality, the principles of rhetoric and composition need to be applied. Students yearn to discern results in their work, to see outcomes beyond well-crafted sentences and convincing persuasive discourse, payoffs that can be assigned no precise value in the marketplace" (pp. 250–251). When communication skills are employed to support the values and outcomes of ecoliteracy, students draw on interdisciplinary thinking to achieve consequentiality. Tangible outcomes from their writing, such as personal email replies to their proposals from the director of the park and the newsletter publication, demonstrated to students that their writing has impact. In questions from and

discussions with the mayor, park leadership, and university administrators at the end-of-semester brunch, students saw proof that their ideas have been heard by those in power to act on the changes they hope to see happen. These lessons learned from "real" writing assignments also support students' professional preparation; for example, employees surveyed about writing skills students need for success on the job reported students "must have a clear sense of their audience" (Blalock. Loudermilk, Cardenas, & Hawthorne, 2003, p. 59). Not only did students write directly to the park and its patrons, they also gained awareness of career and major options as represented by topics they researched through their emphasis on the park and their exposure to the many kinds of professionals whose work relates in some way to its environment or operations. Two of the students' final proposals included recommendations to create new internships at the park, internships for which the students plan to apply next year. Further, by approaching civic engagement through the lens of place, we are able to practice ecoliteracy by expanding and deepening our sense of community to account for the diversity of historical and cultural forces that shape and have shaped the places we inhabit, while becoming accountable to the ecologies that sustain us. As David Gruenwald (2003) asserted, "[p]lace-conscious education aims to reframe the discourse of democracy and accountability so that the character and quality of places, and our relationship to them, figure significantly in the purpose, process and assessment of education" (p. 645).

Recommendations

Framing civic engagement in an interdisciplinary, place-based learning community models a writing-across-the-curriculum sensibility that will introduce students to rhetorical considerations applicable to a range of majors and professional futures.³ Students in the Stanley Park learning community reported that the cross-disciplinary pairing of physical geography and English improved their comfort level with both subjects. Those who identified as "hating English" and being more confident in science courses claimed they found the park-based writing assignments more accessible than the English assignments they had experienced in the past, and the self-reported strong writers who began the semester nervous about their required lab science coursework expressed finding more confidence in the lab work and geography content than they had experienced in past science courses. Here too we note evidence of "critical thinking self-confidence" (Ernst & Monroe, 2004, p. 509). Using their writing to advance ideas and actions in support of Stanley Park, students practiced "consilience" by drawing on multiple disciplines to bring about positive change for the park and our community.

The successes and challenges of this pilot effort suggest some conditions that will facilitate implementation of similar courses on other campuses:

• Both instructors in this case were already deeply involved in service for Stanley Park and the Westfield River Watershed Association, work that inspired the idea for this learning community. Faculty should consider community partnerships related to their own service, research, and community priorities. Adding a teaching component to existing service activities and community partnership relationships will be less time consuming for faculty—and more sustainable—than establishing new relationships.

- Westfield State University had recently increased commitment to and support for developing new civic engagement courses. Incentive stipends were offered to generate new course proposals, and a paid summer workshop devoted to research, writing, and course design related to civic engagement was offered. This pilot course (along with other new civic engagement courses on campus) developed as a result.
- First-semester first-year students are an excellent population to target for learning community and place-based courses. They benefit from cohort building and sense of connection to place as they transition to their new college lives. As one student put it, the class became "a tight group of kids, making it easier to adjust to college." In addition, their scheduling decisions for the first semester are typically overseen by advisors and administrators more closely than in subsequent semesters, so recruiting/enrolling for learning communities is facilitated.
- As Annie Merril Ingram (2001) noted, "Students should choose to participate in service learning, not be forced into it" (218), so advertising the service-learning component of a course and collecting student requests to enroll is crucial for maximum student engagement.
- Faculty partners need time to collaborate on the development of learning communities. Student evaluations of this learning community expressed desire for further integration of assignments and "more crossover" between the disciplines. Course reassignment or paid summer course development time would support faculty members as they reach beyond their disciplinary comfort zones, read and discuss with faculty partners common texts, develop shared assignments, and spend more time in the partner's class period.
- Not surprisingly, students wrote enthusiastically about class visits to the park, but they also responded positively to participation in the river clean up and the 5k, weekend service events that emerged as memorable highlights of the semester. Students suggested *adding* another class project benefiting the park. This feedback suggests that students will respond positively to service components in classes if scheduling and transportation are organized with their needs in mind.

Conclusion

Repeated visits to Stanley Park for writing, lab work, and service projects established students' increased knowledge about and connection to the park, suggesting they established a sense of place related to this site of learning. As one student in the learning community reported, "now when my family comes to visit me at school, I take them to Stanley Park because I feel like it's *my* park." As the semester concluded, students expressed a desire to stay involved, as evidenced by their volunteering to mentor next year's group of first-year students who will take the course, their

ongoing participation in a Facebook group page created for the course, their investigation of internship opportunities with the park, and their presentations at two different academic conferences about their work in the learning community. Turner (2011) included in her definition of critical ecoliteracy "critical awareness of the role that language and discourse play in shaping attitudes and behaviors, an understanding and appreciation of ecological and relational interdependence," and "a sense of agency to enact change." As they completed their first semester of college, our students demonstrated these elements of ecoliteracy, as well as the attributes of curiosity, openness, respect, self-regulation, and diligence that position them to continue development of critical thinking skills.

Notes

¹All students have granted permission to be quoted anonymously.

²We borrow the term *environmental civics* from Chris Bathurst and Paul Newlin of the Center for Civic Participation, <u>http://www.centerforenvironmental-civics.org</u>. For a useful discussion of the intersection of ecological literacy, civics and citizenship, see Berkowitz, Ford, and Brewer, 2005.

³Such "service learning clusters" have been developed since the 1990s at Bentley and other colleges to support "cross-disciplinary communication and service efforts" (Adler-Kassner, Crooks, & Watters, 1997, p. 4). According to Bridwell-Bowles (1997), service learning in composition reflects the reality that "the need to connect with our communities and the need to communicate cut across every field in a modern college or university. And they may also be a cure for the alienation and despair that many of us see among students on our campuses" (p. 26). Research on high-impact practices in undergraduate education shows that "students persist in their studies if the learning they experience is meaningful, deeply engaging, and relevant to their lives.... [L]earning communities can offer ... curricular coherence; integrative, high-quality learning; collaborative knowledge-construction; and skills and knowledge relevant to living in a complex, messy, diverse world" (Lardner & Malnarich, 2008).

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