Several years ago, as a Fulbright scholar in Bosnia and Herzegovina, I assisted high school teachers and university professors in constructing a curriculum to teach students about democracy. I was far from an expert on the topic, but within weeks of my arrival, I had addressed a national conference and spoken at several educational and religious institutions about the need for democratic engagement with diversity—far from an abstraction in a country disengaging from a devastating war that inflamed ethnic differences. In preparing for these events, I found myself struggling to reflect deeply on decades of experience living in the world’s best-known pluralist democracy. I felt less than prepared to share my perspectives on diversity and democracy with my colleagues in my host country.

I imagine that this feeling is familiar to many professors in America’s colleges and universities. Today’s students expect faculty to engage in meaningful conversations about democracy’s promise and reality. Knowing that the landscape on which they will construct their adult lives is unstable, they see faculty as models for how they can influence the conversation about democracy’s role in America’s diverse society and in the world at large. Faculty, particularly those whose disciplinary work seems less connected to these issues, may not feel prepared to engage these questions. Yet all faculty can bring issues of diversity and democracy into their teaching. The challenge is finding a way how.

A Cross-Disciplinary Task

The learning outcomes associated with diversity education and with liberal education more generally—civic knowledge and engagement, intercultural knowledge and competence, ethical reasoning and action—are not the exclusive domain of any single discipline. Indeed, strengthening our students’ skills and knowledge in these areas will require advances and insights from many academic fields, as contributors to this issue of *Diversity & Democracy* affirm. At the same time, the breadth of these learning outcomes can obscure their close connections with focused disciplinary endeavors, leaving some faculty to imagine that better-prepared colleagues in other departments are engaging students with these important learning goals. This is a formula for institutional failure.

Success in attaining these outcomes requires students to engage with questions of diversity and democracy throughout their educations, strengthening their skills as they apply what they have learned to increasingly complex problems. For this to happen, *all* faculty in *all* disciplines must commit to teaching toward these outcomes. In some cases, this means highlighting disciplinary content that attends to diverse perspectives—for example, including narratives that reflect Americans’
ABOUT THIS ISSUE

Higher education has made great efforts to incorporate diverse content, perspectives, and approaches in the classroom. By questioning canons, considering civic commitments, and following the lure of interdisciplinarity, faculty have shifted pedagogies in promising ways. Yet some faculty members continue to ask, “How can I incorporate diversity into my teaching? How can I globalize my students’ learning? And how can I help my students engage with the multiple communities that constitute their world?”

This issue of Diversity & Democracy continues this legacy and addresses these challenges by showcasing new ideas for integrating diversity work across multiple disciplines. With creative approaches to persistent questions related to U.S. pluralism, global diversity, and civic engagement, this issue’s authors are exploring new ways to prepare students to live in the modern world. Through novel methods of teaching, faculty are encouraging students to develop skills that are essential in a diverse democracy while simultaneously strengthening students’ disciplinary and interdisciplinary learning. Their work suggests pathways toward pedagogies that support student engagement with diversity and learning in all subject areas.

diverse backgrounds and experiences, as some humanities scholars have done. I transformed a traditional course in developmental psychology by including autobiographies reflecting diverse experiences of growing up in America (Meacham 1997). Faculty can also teach toward these outcomes by drawing on content from multiple disciplines. In teaching World Civilizations, a general education course for first-year students, I emphasized themes of religion, race, democracy, and gender by drawing on content from art history, classics, economics, history, philosophy, and political science.

Still, for faculty accustomed to the narrow subdisciplinary focus of current doctoral training, teaching toward these outcomes through course content can be challenging. For these faculty members, it may be productive to ask not what they will teach, but how their method of teaching can encourage democratic outcomes and engagement with diversity.

Critical Thinking and Diversity

The lessons of civic engagement and diversity have significant implications for teaching. Our classrooms should be models of democracy in action. The search for better modes of deliberation across difference occurs not just in the town hall, but in the classroom, where our students can learn and practice the value of listening with respect to others. The skills students need to form better understandings are very similar to those they need to become engaged citizens in a pluralistic democracy: written and oral communication, teamwork, inquiry and analysis, intercultural competence, and critical thinking. We should thus seek opportunities to model these skills through discussion and debate, presenting evidence on both sides of historical and contemporary issues and encouraging students to draw their own conclusions while engaging deeply with multiple viewpoints.

Too many students (and perhaps too many faculty) understand the goal of debate in the classroom (and in a democracy) to be to convince other students (and fellow citizens) of their views. In short, they see inquiry, analysis, and critical thinking as ways to prove that they are right, and assume that those who disagree with them are simply failing to engage in these activities. Yet I believe...
that the essence of critical thinking is not criticism of others’ ideas but reflection on one’s own ideas and assumptions that are developed in dialogue with others. This seems especially true in the context of preparing students to be citizens in a democracy. I now tell my students that evidence of critical thinking can include reflecting on and critiquing one’s own paper, criticizing one’s own thesis, and discussing both sides of an issue. Critical thinking should be a tool not merely for exposing flaws in others’ arguments, but for reflecting on one’s own assumptions and—most importantly—strengthening one’s own understanding.

What does this conception of critical thinking imply for how we engage students around issues of diversity and civic knowledge? For many years, my overarching goal in my diversity courses was for students to know about the histories and experiences of people who are different from themselves. In retrospect, I suspect that this approach led students to focus too much on learning about “the other” and too little on reflecting on their own beliefs and attitudes. Engaging with civic knowledge and diversity should mean applying critical thinking to learn about “the other” and to learn about oneself. Students should understand how gender, race, ethnicity, class, and religion affect those who are different from themselves, but they should also understand how these forces affect them. Just as in a democracy, students should analyze and critique the other’s and their own positions.

In this context, the parallels between interdisciplinary and intercultural engagement abound, with deep implications for the way we teach and learn. Like diverse groups in society, each academic discipline (and each person within each discipline) provides unique perspectives on significant questions. Likewise, the boundaries of each discipline support faculty identities. Faculty who succeed in interdisciplinarity teaching are able to stretch beyond their disciplinary training, taking delight with others in the mutual enrichment of their disciplines and encouraging students to appreciate connections among diverse approaches to knowledge. Interdisciplinary teaching and scholarship provide an opportunity to reflect on, test, and strengthen one’s own ideas and assumptions while working with colleagues from diverse disciplines toward mutual understanding and achievement. These benefits are very similar to the benefits of engagement with diversity in a pluralist democracy.

**A Democratic Approach**

Given the connections between diversity, democracy, and interdisciplinarity, it’s not surprising that faculty who are invested in their disciplinary identities might claim that the content of their work doesn’t touch on topics related to race, gender, ethnicity, social class, or religion. But any classroom should exemplify respect for others’ voices and perspectives. It’s thus important for faculty to model for their students how to listen with respect and learn from those with divergent voices.

How can faculty best approach this task? In teaching toward the outcomes of civic engagement and diversity, and so sometimes stretching beyond the bounds of our disciplinary training, we should be honest with our students and ourselves about the limits of our knowledge. Effective teaching in a democratic classroom requires a willingness to shift from what one knows (and the authority that a disciplinary grounding implies) to what one doesn’t know—or what one still needs to learn (and the lack of authority that this implies). Teaching a general education course, World Civilizations, after being trained as a psychologist, I learned to cast myself in the role of a student as I learned about the history of the human adventure together with the students in my course.

In doing so, I came to understand better the limitations of my own perspective on historical and current events. I tried to model for my students how to be a naïve learner, admitting that there are gaps in my understanding of Islam, for example. (I describe my experience teaching Islam in World Civilizations in a 2009 article in *Peer Review*. In learning about Islam, I found an opportunity not merely to learn about “the other” but also to critique my own beliefs and attitudes about religion and society. And I believe my students found this opportunity as well.

The intellectual gain for my students came less, I would argue, from any specific content—the what—that I taught, and more from the give-and-take among the students, the respect with which we engaged with others’ beliefs in the classroom, and the students’ sense that the true focus of our lessons wasn’t Islam, per se, but was their own beliefs, attitudes, and values. Specific content on civic engagement and diversity does make a difference. But how we incorporate this content—by modeling the democratic process of discussion, debate, and the search for more informed judgments—is the key to empowering our students to be better citizens in our pluralist American democracy.

**Our classrooms should be models of democracy in action.**

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**REFERENCES**


[DIVERSITY ACROSS THE DISCIPLINES]

Infusing Diversity in the Sciences and Professional Disciplines

Susan M. Shaw, director of women’s studies and the Difference, Power, and Discrimination program, and Donna A. Champeau, director of Women’s Advancement and Gender Equity and associate professor of public health, both at Oregon State University; and Robert Amico, professor of philosophy at St. Bonaventure University in New York

When we lead curriculum transformation workshops around the country, we almost always encounter more participants from the liberal arts than from the sciences and professional disciplines. Faculty in English, history, sociology, anthropology, ethnic studies, and women’s studies seem to see a natural affinity for diversity in their curricula. In contrast, faculty in the sciences and professional disciplines often perceive their work as limited to technical skills and a certain canon of disciplinary knowledge. Nonetheless, myriad opportunities exist within these disciplines to attend to issues of difference, power, and privilege and to transform courses around matters of diversity, inclusion, and social justice.

Too often, faculty in the sciences and professional disciplines have not been encouraged in their own educational journeys to examine disciplinary content and pedagogical practices from perspectives attuned to difference and power. But once introduced to key concepts and given opportunity to apply them, these faculty members can find creative and exciting ways to modify their courses to be attentive to gender, race and ethnicity, social class, sexual identity, age, ability, and religion, as well as the social structures, ideologies, and uses of power that advantage and disadvantage particular groups.

Transforming the Disciplines

Like most social institutions, academic disciplines tend to reproduce themselves. Because most disciplines (with a few notable exceptions) have been constructed and maintained primarily by white, heterosexual, financially privileged males, they tend to reproduce themselves as white, heterosexual, financially privileged, and male—not simply in terms of their demographic representation, but also in terms of their analytical frameworks. Often the disciplines’ very structures, as well as the ways they are taught, tend to marginalize women, people of color, and LGBT students. These students’ concerns are rarely at the center of the curriculum because invisible norms have shaped the disciplines to exclude traditionally marginalized groups. A simple additive approach (for example, including readings by women, people of color, or LGBT authors) cannot address these larger structural issues.

To facilitate curriculum transformation in the sciences and professional disciplines, we help faculty identify and understand the ways the curriculum, rather than being objective and value-neutral, is socially constructed and highly politicized. We often begin by encouraging faculty members to examine the subtle and invisible ways in which their disciplines reproduce themselves. We encourage them to consider a wide range of issues that affect their disciplinary work: the curriculum and the hidden curriculum, faculty composition, disciplinary methodology, professional values (overt and covert), professional societies, hiring policies and practices (including rewards, awards, tenure, merit, and promotion), funding, projects adopted, unasked questions and unexplored values, ideology, language, corporate relationships, and compartmentalization of one’s knowledge or tasks.

Next, we ask faculty to think about knowledge production as a socially constructed process in which power, privilege, and difference shape and maintain the disciplines in their current forms. We ask such questions as:

- How is knowledge constructed in your discipline, and who controls its production and dissemination? Who has access to knowledge, and who doesn’t?
- How do funding structures affect knowledge production in your discipline?
- Are some people systemically disadvantaged by the way knowledge in your discipline is constructed, produced, or taught?
- How is knowledge production in your discipline gendered or racialized? How is it connected to social class?
- How do these factors affect the questions asked in your discipline? Are there certain questions that are asked and certain questions that aren’t?

As we discuss these questions, we introduce literature on key concepts related to systems of oppression and encourage faculty members to make connections between this literature and their disciplines. For example, when
we introduce the concepts of white privilege or heteronormativity, we ask faculty members to identify ways white privilege or heteronormativity operates in their disciplines. We also invite faculty members to think about how their disciplines would look (including the different questions they might ask and different processes they might use) if they centered on traditionally marginalized groups. What would business look like if women were at the center of the discipline? What would public health look like if LGBT people were at the center? What would engineering look like if people of color were at the center?

The goal of these questions is to encourage course transformation rather than simple addition of content. Merely adding a few readings or a unit about the concerns of traditionally marginalized people simply maintains those people’s outsider status, and students quickly realize that the additions are of secondary importance to the “real” curriculum. Curriculum transformation, however, challenges the foundations and structures of disciplinary content and calls for the perspectives and concerns of traditionally marginalized people to be as central as those of the dominant group. Transformed courses are truly and fully inclusive of a broader range of knowledges and learning styles. These courses challenge notions of disciplines as fixed and objective bodies of knowledge that exist apart from the people who teach and learn and research.

Finally, we ask faculty to consider how they might restructure their disciplinary teaching to focus on issues of difference, power, privilege, and social justice. We ask faculty to imagine:

1. Teaching scientific and technical questions in their social context, asking: What is the historical context for the scientific development, research, or technology in question? What problems have arisen, and why?

How have these problems affected traditionally marginalized people?

2. Helping students become ethical thinkers by asking: How do my values inform the way I practice my discipline? What shared disciplinary values form the context for my work? How do issues of power, privilege, and difference inform my work? What are the potential unintended consequences of my work?

3. Teaching students to develop knowledge, technology, products, and policy that will meet social needs by encouraging students to ask: What problem is to be solved, and for whom? What are the proposed solution’s ethical, societal, and global implications? Does the proposed solution further the cause of social justice, or does it contribute to injustice or suffering? How might my work challenge systems of power and privilege that disadvantage members of traditionally marginalized groups?

Prompted by these inquiries, several faculty members in the sciences and professional disciplines at Oregon State University have transformed courses to meet the university’s Difference, Power, and Discrimination requirement, which the university implemented in the 1990s in response to student demand. Rather than create a single course, the university decided to transform multiple courses so students would see how power, privilege, and social inequality are relevant across disciplines. For example, a microbiology course, Disease and Society, examines the movement of disease at the microbial level in relation to issues of race, gender, and social class. A course in exercise and sport science, Power and Privilege in Sport, examines how the unequal distribution of resources across gender, race, social class, sexual identity, ability, and age plays out in sports. Social Ethics in Engineering asks students to apply concepts of systems of oppression as they consider their professional development as engineers. A geosciences course, Environmental Justice, explores the impact of environmental racism on people of color, and a fisheries and wildlife course, Multicultural Perspectives on Natural Resources, considers how diverse social values affect changes in the physical landscape and biodiversity in the American West.

Examples from Engineering and Veterinary Medicine

We recently conducted two workshops, one for engineering faculty and the other for veterinary medicine faculty. The two workshops shared a number of similar features, but each dealt specifically with issues unique to each discipline.

We began the engineering workshop by asking faculty members to think about engineering’s potential and limits in addressing social problems. A primary focus was the issue of technology’s unintended consequences. After introducing the concepts of power and privilege, we discussed the example of the Toyota Prius. Engineers designed the Prius to be extremely quiet—so quiet that it poses a danger to vision-impaired people, who cannot hear it. Vision-impaired people are now asking the automotive industry to design automobiles that
have minimum noise levels. Other unintended consequences include the impingement on Native American fishing rights caused by hydroelectric dams and the rampant consumerism driven by engineering’s focus on creating new products. We also examined two case studies that faculty members can utilize to explore the complex issues of privilege, power, and difference in relation to engineering: the Manhattan Project and Hurricane Katrina.

In the veterinary medicine workshop, we began by discussing climate issues related to the discipline’s changing demographics (women now outnumber men in veterinary medicine programs). As we moved on to discuss content, we talked about animals’ vulnerability in human society and asked how faculty members might assess animal–human relations in the context of power and privilege. We concluded by asking faculty members to imagine how they might help their students think about issues of difference, power, and privilege in light of a range of questions, including:

- What is poverty’s impact on the practice of veterinary medicine?
- How do cultural and gender differences affect the practice of veterinary medicine?
- What role do veterinarians play in organizations that help humans, and do veterinarians have an obligation to work toward improving human conditions?
- What ties does veterinary medicine have to pharmaceutical companies?
- What role do veterinarians play in global development work, in disasters, and in wars?
- What role do veterinarians play in developing legislation about animal welfare issues?

In both workshops, challenging faculty members to apply concepts of systems of oppression specifically to their disciplines was key to encouraging curriculum transformation.

Challenges to Consider
Curriculum transformation is not a quick or easy process, and it often occurs in small increments. While we have made strides on our two campuses, we still see room for growth. At Oregon State University, we need to add more sciences courses to our Difference, Power, and Discrimination offerings. Yet even as we encourage faculty to develop new courses, we see many faculty members integrating questions of difference, power, and privilege and transforming parts of their existing courses. Although content-based accreditation requirements sometimes constrain faculty members in their efforts to transform a course, faculty are finding that they can raise questions of power and privilege, place problems in new contexts, and problematize the disciplines themselves while still meeting content guidelines.

As institutions move forward to begin the process of curriculum transformation, they must examine their reasons for embarking on change. Our experience indicates that the sciences and professional disciplines are usually more resistant to change than the liberal arts. Often, this resistance originates with institutions that have not fully embraced principles of curriculum transformation and may simply be looking to satisfy accrediting institutions by suggesting “good faith” efforts to embrace inclusion. Just as students can quickly recognize when a curriculum addition is of secondary importance to the “real” curriculum, so too can faculty recognize when schools do not fully embrace curriculum transformation throughout the curriculum. Hence institution-wide commitment to curriculum transformation in all disciplines is imperative. Academic disciplines, invested in existing power relations, will not change of their own accord.

An invitation to consider disciplinary content and pedagogical practices from a perspective informed by privilege, power, and difference is most compelling when the institution fully endorses it. The institution must offer monetary compensation, recognize faculty development in tenure and promotion decisions, and consider this transformative work as a component of faculty research obligations. Curriculum transformation requires the full support of the institution and the individual, particularly in the sciences and professional disciplines.
Supported by a generous endowment from Harold and Helen McMaster, in 2002 Defiance College established the McMaster School for Advancing Humanity with the directive that students and faculty use their scholarship to improve the human condition. From the McMaster School’s inception, it has provided opportunities for faculty and students from all disciplines to engage in purposeful research within diverse global communities. The school has since evolved into a catalyst for academically formidable interdisciplinary initiatives that have significantly affected faculty, students, and community partners.

The McMaster School’s mission is to educate students for responsible citizenship; to produce committed global citizens and leaders who understand the importance of individual liberties in improving the human condition worldwide; and to encourage graduates to take an active role in addressing these issues in whatever professions they may choose.

This mission comes to fruition through innovative interdisciplinary learning communities where faculty and students apply their academic expertise to improving the lives of others.

The McMaster Model
The McMaster School’s model begins to take shape each January and February, when faculty submit fellow applications. These applications outline (1) the proposed research, (2) the context and location, including the community partner’s involvement in determining the project’s direction, and (3) the faculty member’s commitment and ability to support a learning community of students from multiple disciplines. An off-campus advisory board reviews fellow applications and names fellows for the upcoming academic year. Each fellow receives both a research stipend and a three-semester-hour course release to implement his or her initiative.

In March and April, students submit scholar proposals for individual on-site research projects at locations designated by fellows. Each proposal includes (1) a literature review that provides a disciplinary, locational, and community context for the project, (2) the project methodology, and (3) a clearly defined anticipated outcome. The next year’s fellows and an administrative team rank these scholar applications, selecting and announcing the learning communities prior to the close of spring semester.

Each learning community also includes associate fellows—faculty and staff who serve in a support capacity, traveling with and participating in the learning communities for the entire initiative. While these faculty members and students apply their academic expertise to improving the lives of others, they also conduct exploratory research and lay the groundwork for the next year’s scholar proposals. Associate fellows submit applications and are selected at the same time as scholars.

Learning communities vary in size but generally consist of two to three fellows, two associate fellows, and six to twelve scholars. Each learning community spans one year and includes a two-to-three-week on-site field experience. While on campus, learning communities generally meet for two hours each week over two semesters, both to prepare for the on-site field work and to reflect and analyze after the trip. The McMaster endowment supports the cost of travel, food, lodging, and research equipment for approximately six to eight faculty members and thirty students—translating into three to four locations in any given academic year.

All projects accepted by the McMaster School clearly address the school’s goals:

1. To critically examine the root causes of human suffering through community-based research that addresses systemic factors that impede human progress
2. To give students the knowledge and capacities to be active world citizens and to view themselves as members of the world community
3. To contribute actively through sponsored scholarship and service to the improvement of the human condition worldwide
4. To exchange, create, and disseminate knowledge about successful models of active citizenship and public service
5. To create at Defiance College one of the nation’s premier undergraduate educational programs with a focus on diversity across the disciplines.
on scholarship and service and a special emphasis on developing an innovative approach to teaching

**Benefits of Interdisciplinary Work**
Recognizing the value of interdisciplinary contexts in developing solutions to complex real-world problems, the McMaster learning communities convene faculty and students of various disciplines to design, implement, and reflect on their individual research projects as an interdisciplinary team. Faculty and students in the communities work to develop connections between their respective individual projects, and between those projects’ effects on community partners.

For the learning communities to succeed, students and faculty must learn to rely on one another and work constructively. This can be challenging for both faculty and students, who are often accustomed to the authoritarian classroom model, in which teachers and texts are the sole sources of expertise. In contrast to this model, learning communities require participants to engage in cooperative and collaborative learning to arrive at knowledge that is socially constructed and reconstructed by “negotiating with one another in [a community] of knowledgeable peers” (Smith et al. 2004). This collaboration results in a well-prepared research team that can complete projects effectively in the relatively short time the team is on the ground while actively connecting their academic work with the larger society.

McMaster learning communities provide an active educational environment that can move students from individualistic to global perspectives. The diversity within each learning community—of expertise, discipline, learning style, and identity—supports the development of global perspectives, as does the exchange that occurs when internally diverse cohorts work on location with partners vastly different from themselves. Through strategic preparation including readings that address each community’s unique needs, the learning communities become able to bridge differences in ethnicity, socioeconomic background, expertise, need, and resource base. As a result, community participants transition from isolation to appreciation for an individual’s role in a global society.

Within learning communities, students strive to apply their disciplinary content or knowledge to new venues and unsolved problems. This process provides a mechanism for deep learning—education that becomes part of a person’s evolving understanding of his or her discipline in context, and that transforms the learner in some way (Entwistle n.d.). Deep learning flourishes in the safety of community, where students can take the risks necessary to relate past experiences to present challenges. By integrating traditional curricular knowledge with extreme challenges in the field, students can move toward a more complex understanding of the world.

Through deliberate opportunities for reflection and self-assessment, students develop a conscious connection between academic content and critical, creative application. Throughout the experience, we ask scholars to examine what they know or assume and reflect on how their project-related learning is causing their understandings to evolve or change. Reflection exercises include nightly discussions while on site, responses to specific journal prompts, and a culminating activity: preparing submissions for the annual McMaster Journal (available online at www.defiance.edu/pages/MS_journal.html). Through these exercises, we challenge students to reach within themselves for the understanding and knowledge to adapt and solve problems.

### Individual Projects in Belize, 2008-09
Participants in the 2008-09 McMaster Belize initiative conducted a range of individual projects that align with one or more Integrated Natural Resources Management goals—to enhance human well-being, to increase productivity, and to preserve ecosystem functions. Topics included:

- Risk Assessment/Remediation in Rural Belize—CPR and Water Safety Training (Forensic Science)
- Developing a Campaign for Solar Power for San Carlos School (Business)
- Developing Literacy in Rural Belize (Education)
- Developing a Marketing Plan for the Indian Church Artisan Center (Business)
- Developing Mechanisms for Intervention for San Carlos School (Education)
- Assessing Water Quality in the New River Lagoon Watershed (Molecular Biology)
- Creating Awareness about Developmental Delays (Education)
- Developing Non-Chemical Solutions for Lepidopteron Agricultural Pests (Biology)
- Developing Resources for Effective Partnerships (History)
- Documenting the Use of Medicinal Plants through Oral Histories (History)
- Improving the Pottery Capabilities of Indian Church Artisans (Art)
- Promoting Differentiated Instruction (Education)
- Soil Nutrient Analysis in Northern Belize (Physical Science)

—Mary Ann Studer

### Belize Project: The McMaster School in Action
For the past four years of a five-year partnership, the McMaster School has supported projects in Belize that center around the Integrated Natural Resource Management (INRM) schema...
developed by the Consultative Group for International Agricultural Research (CGIAR) (Izac and Sanchez 2002). INRM provides a framework for the projects’ interdisciplinary goal of improving and developing sustainable communities in Belize. Each year’s participants align their efforts with a common goal: to empower small, isolated indigenous communities to develop sustainably while simultaneously supporting environmental conservation.

Our task is facilitated by the fact that in Belize, the goals of sustainability and development are ultimately mutually reinforcing. People struggling to feed their families tend to place a low priority on environmental preservation. Yet as Sayer and Campbell have pointed out, impoverished people often “depend upon the ‘natural capital’ that supports their lives just as much as they do on the more tangible assets of money and property” (2004). Substantial evidence suggests that degraded ecosystems correlate to poverty, famine, and natural disasters. Through our work in Belize, we have demonstrated that improved income levels, access to education, and infrastructure do not have to come at the expense of the environment.

While faculty and student participants change each year and the group’s disciplinary perspectives consequently shift, our Belizean partnerships provide an impetus for continued work. We work with multiple partners, including the Programme for Belize (the nongovernmental organization that manages the Rio Bravo Conservation and Management Area) and the indigenous populations on the periphery of the Rio Bravo preserve, who need to move beyond a subsistence level of living. Interdisciplinary work forms the core of our research and our ability to respond to these partners’ multiple perspectives. It allows us to engage in “a process of answering a question, solving a problem, or addressing a topic that is too broad or complex to be dealt with adequately by a single discipline or profession” (Klein and Newell 1996).

Since the school’s inception, projects have evolved toward an increasingly interdisciplinary focus. The Belize initiative provides an example: in 2004 the team consisted of two science fellows and three science scholars, while the most recent team consisted of three fellows (one each from science, education, and art) and scholars majoring in science, education, business, history, and the humanities. This shift to a more engaged interdisciplinary team correlates to the growth of our Belizean partnerships in response to community challenges. Over the last five years, our effort in Belize has strategically aligned over forty research projects in many disciplines to support a set of community-based goals. We have created an interdisciplinary organizational framework that focuses multiple initiatives on a unified goal—the big picture.

In addition to the work in Belize, the McMaster program has supported initiatives in Cambodia, Jamaica, Guatemala, Thailand, Israel, Ireland, and New Orleans. These sites all uphold the McMaster program’s rigorous standards of research and scholarship through a range of approaches to a wide variety of community challenges. Each project follows a unique approach determined by its logistical aspects, location, and diverse working relationships with community partners. Within each learning community, students and faculty travel a dynamic learning curve as they translate their academic expertise to positive impact.

Creating a New Culture

Since the McMaster School’s inception in 2002, over 10 percent of the student body has participated as McMaster scholars, and over 50 percent of Defiance College’s full-time faculty has participated as fellows or associate fellows. Other faculty members have assisted scholars in their research or have incorporated aspects of McMaster projects in their course-work, as in a general chemistry course that explores water testing protocols or an educational methods class that translates lesson plans into a community partner’s native language for use in teacher training. McMaster School projects have spanned every discipline on campus, and no locations currently follow a single disciplinary focus.

The McMaster School’s pervasive influence on campus has permeated every discipline. Participants in the program have grown to a critical mass at Defiance College, creating a culture of awareness of disciplinary expertise that can be applied in the global arena. For more information, visit www.defiance.edu/mcmaster_school.html.

REFERENCES


[DIVERSITY ACROSS THE DISCIPLINES]

Literature, Literacy, and Multiculturalism in the Expanded Classroom

ERIC DAIGRE, lecturer in the English department at the University of Minnesota–Twin Cities

The narrator of Pat Mora’s poem “Elena” insists, “My Spanish isn’t good enough.” Having moved from Mexico to the United States, Elena worries that her lack of English proficiency will make her “deaf / when [her] children need [her] help” (1994). Elena’s dilemma—that she is literate in Spanish but not in English, the dominant language—suggests the complexity of literacy in a multicultural, multilingual society. While mainstream literacies are critical for democratic participation in the United States, some have struggled to achieve these literacies in contexts where institutional cultures can be at odds with primary home cultures.

The intertwining topics of literacy and diversity provide an opportunity to connect college students’ academic inquiry with experiential learning. I have taken advantage of this opportunity by teaching two service-learning and civic engagement courses in the English department at the University of Minnesota–Twin Cities: Literacy and American Cultural Diversity, a one-semester course, and Community Learning Internships, a yearlong course. My students gain intellectual exposure and analytical skills through the study of multicultural literature, while also gaining cultural exposure and experience in diverse communities.

Classroom and Experiential Learning

We begin each course by exploring data on language literacy in the United States. Most students are shocked at the high rates of illiteracy and raise questions that pave the way for our inquiry throughout the course: How do different sources define literacy, and might some functional literacy skills go unmeasured by standardized tests? How is literacy distributed across categories of race, national origin, gender, and socioeconomic class? In the United States, in what language or languages should one be literate? Students consider these and other questions using tools typical of a liberal arts course: they complete readings, write papers, give presentations, and participate in group work and class discussions.

They also learn in more hands-on ways by engaging in multicultural literacy initiatives in the K-12, adult basic education, and English language learning sectors. At the beginning of each semester, the Career and Community Learning Center (CCLC) organizes a community panel in which representatives of participating organizations showcase their programs. These community partners include democratic education initiatives, community centers, adult education centers, a sober high school, an elementary school with a social justice curriculum, a Latino social service agency, a charter high school for East African students, and an after-school program for Native American youth. After attending the panel, students select organizations for whom they will serve as “literacy workers,” teaching, coteaching, tutoring, or assisting in classrooms for the duration of the course. In the one-semester course, students work for two hours per week; in the yearlong course, students contribute up to six hours per week while completing an on-site project. CCLC staff and community supervisors also occasionally join our classroom discussions. The classroom and experiential learning modes reinforce each other, helping students analyze literary texts and “read” the social texts of their community experiences.

Language and Power

In the classroom, literary examples help students frame questions about literacy, while students’ community experiences lead them toward a more critical engagement with literature. In the classroom, literary examples help students frame questions about literacy, while students’ community experiences lead them toward a more critical engagement with literature. I have already mentioned Pat Mora’s “Elena,” which resonates with students who are tutoring adult immigrants and refugees. A second literary example comes from Ernest Gaines’s novel A Lesson Before Dying. Grant Wiggins, an African American school teacher, tries to teach his African American students “good” grammar even as he is expected to use “bad” grammar in front of white people. Wiggins picks his battles carefully, but often transgresses by speaking “properly” to white authorities (1993). The novel opens a discussion about the history of “standard” English and different varieties of English, including Black English Vernacular, Chicano English, regional dialects, and the vernacular idioms of popular culture. Students have a lot to say about the social, cultural, and political expectations attached to speech, and how language provides opportunities for both submission and subversion. In our forays
into educational theory, we read about individuals who conscientiously chose not to learn how to read, write, or speak English, either for fear of losing their cultures or out of a principled resistance to racist messages. Occasionally, students encounter similar stories at their community sites. More often, students working in K-12 environments employ these ideas to analyze the institutional practices embedded in educational culture. They are thus able to see beyond mainstream explanations for students’ difficulties (a negligent parent, a rough neighborhood, an individual “bad teacher”) or the armchair psychology that freely dispenses diagnoses of attention-deficit disorder.

Some students grapple with the ideological dimensions of teaching English to nonnative speakers, including whether and how to “correct” nonstandard forms of English among people whose ways of speaking are closely linked to personal, cultural, and communal identities. Students debate the politics of language, and we consult linguistic theory to understand code meshing, code switching, discourse stacking, trilingualism, hybrid discourses, and the triangle of basic, cultural, and multicultural literacy. As we explore connections between education and democracy, students find it hard to deny that citizens need access to the language of power to gain socioeconomic access. They ask: How can one teach standard English while respecting students’ home languages? How can other languages become resources for teaching standard English? We read theorists like Paulo Freire and consider that democratic participation means not adapting to the status quo but exercising the creative capacity to change society. To challenge power is to challenge—and perhaps transform—the language of power.

Self and Community
College students are generally impressed with the hard work they see at community organizations, where people are striving to develop their literacy skills and improve their lives. They are also humbled by the realization that just as they have taught their students, their students have taught them. In class, I contrast this egalitarian insight with Gwendolyn Brooks’s “The Lovers of the Poor” (1994), which helps students distinguish between charitable volunteerism’s personal focus and the systemic target of social justice work. We critique the hierarchies embedded in traditional provider–recipient models of service and ask what it might mean to come from a cultural group that mainstream media represent as underprivileged. We contrast the view of human beings as “problems” to be “fixed” with the understanding of people as equals whose resources, assets, and experiences should form the basis for reciprocal partnerships.

Over the years, in conversations, informal surveys, and in-class activities, I have heard a common refrain that may help explain why English majors at the University of Minnesota are both attracted to and skilled at community involvement. English majors say that connecting with others and being part of diverse communities helps them expand their sense of self. I like this idea of a commodious self that is inextricably linked to the well-being of others, a self that (to quote Walt Whitman) “contains multitudes.” I am impressed with my students’ desire to connect their studies to the public sphere. Perhaps service-learning and civic engagement initiatives pose a challenge to disembodied literary theory—or perhaps they represent theory’s manifold capacities for practice.
Academia has embraced queer studies as a legitimate area of scholarship, but course offerings in this field are still predominantly in the humanities. Yet the current debate about civil rights for LGBT people is framed around questions like, “Does nature or nurture cause sexual orientation? Can people change their sexual orientation? How many people are gay, transgendered, or in a same-sex relationship?” These questions can be statistical or scientific in nature, with answers that require researchers to gather data, synthesize information, draw conclusions, and generalize those conclusions to a larger population.

To address the gap between queer studies and statistics, I decided with the support of my dean to develop a first-year seminar on the statistics of sexual orientation. To my knowledge, this is the first and only course specifically devoted to LGBT content to originate in a department of mathematics or statistics. My goal in designing the class, which I have taught since 2004, was to equip students with the statistical and critical thinking tools they would need to take informed positions in ongoing debates. I created the course on a gamble: I had a hunch that diversity content and statistics would act synergistically and reinforce each other.

I hypothesized that the controversial nature of LGBT content would act as a “hook” and motivate deeper learning. In traditional introductory statistics classes, every homework problem starts with a random sample from a population. But there is no such thing as a random sample of LGBT people, because there is no “master list” to draw from. Thus statistical studies of LGBT people require other sampling methods that tend to be less efficient statistically but that reflect how research is carried out in real life. I hoped that the course’s research-based, scientific perspective would allow students to clearly articulate competing theories and hypotheses about the LGBT population, and evaluate the evidence for or against each theory.

Course Activities
The course covers content similar to that of a traditional course, but I introduce each statistical topic as a tool needed to answer a specific question related to LGBT issues. For example, the question of how many people are LGBT introduces the concepts of sampling and estimating proportions. Furthermore, because many LGBT people will not self-identify in surveys, the question raises the problem of bias and how one can identify, reduce, or estimate it. Similarly, the “nature versus nurture” question introduces hypothesis testing. I also use specific studies to introduce various tests (T-test, ANOVA, Chi-Square). Because the course content centers on diversity as well as statistics, I use a variety of assessments to measure students’ learning, including mathematical problem sets, journals, concept maps, and student presentations. Below I describe three sample activities.

Minimal groups. I start the course with an activity borrowed from Isbell and Tyler (2003). I project an image of dots on the overhead screen and ask students to estimate the number of dots. After I reveal the correct number, I ask students to identify themselves as “overestimators” or “underestimators.” Students then fill out a questionnaire, rating on a one-to-ten scale the extent to which overestimators and underestimators display certain qualities (for example, intelligence, laziness, creativity, thoughtfulness, dependability). I collect the data, summarize it in a table, and return it to the students, directing them to study the table for patterns that emerge. Invariably, both overestimators and underestimators discover that they rated their own group more favorably than the other group across all dimensions. Later in the course, we learn techniques to quantify this bias, but the pattern is so striking that students notice it immediately even without deep statistical knowledge. Students think of themselves as open-minded and unprejudiced, and they are horrified to discover that a simple distinction based on how many dots they estimated immediately elicits strong yet unconscious in-group versus out-group biases. This experiment highlights the need for students to become more informed about issues related to diversity and stereotypes, and it sets the stage for productive attitudes toward learning.

“Gaydar.” I give students a set of...
photographs and ask them to classify the people pictured as gay or straight. I then reveal the subjects’ sexual orientations, and students count their classification mistakes. Students learn to use the Chi-square test to analyze their data, and they also reflect on the implications of labeling people based on superficial features.

**Paper analyses.** In addition to the readings I assign to anchor statistical and LGBT topics, students read and analyze five scientific papers espousing theories that are often cited by opponents of LGBT rights (for example, that gay men have shorter life spans). I scaffold their analysis with a checklist that helps them become critical consumers of research. Students scrutinize each study’s experimental design, measures collected, controls used, conclusions, authors’ reputations, and other factors, and then decide whether they believe the study’s conclusions. In some cases, we examine how the popular press represents these studies, and students realize that the media often magnify the studies’ claims to the extreme. In their journals, students report that they have started to apply this analytical process to other scientific papers and even to the news.

**Learning Outcomes**

Students usually start the course with precious little knowledge of both statistics and LGBT issues. Their initial concept maps have very few nodes and include many misconceptions. By the end of the semester, however, students display several kinds of learning gains.

**Statistical knowledge.** As expected, students learn a lot about statistics. Their end-of-semester concept maps are more meaningful and sophisticated than those they create at the beginning of the course. By the semester’s end, students are able to apply basic statistical techniques to solve standard problems. They are also able to read social science articles critically and with alertness to standard sources of experimental or survey bias.

**Intellectual development.** Students’ journal entries document a developmental transition. To use Perry’s terminology (1968), most students start the course—and college—in a “dualistic” stage, where they see knowledge as black and white with very little gray in between, and where they would not even consider questioning sources. In contrast, students’ later entries come from a position of “multiplicity,” with students perceiving knowledge as theory or opinion which they feel empowered to critique or challenge. Their learning becomes personal as they enter a dialogue with sources and with each other. Several students’ final journal entries reflect “relativistic” positions: the understanding that not all opinions are equal, and that it is possible to evaluate a position based on evidence. These students make extensive reference to the studies they read throughout the course and are comfortable citing statistics to defend their positions.

**Intercultural competency.** I have witnessed three dimensions of development in intercultural competency. Students become increasingly comfortable putting themselves in other people’s shoes, most notably the shoes of transgendered people. These students’ positions move from abstract (“I don’t believe in transgenderism”) to personal (“I wonder how I would feel if my dad told me he decided to transition”). Entries also show a decrease in stereotyping of, or even discomfort with, LGBT people. Finally, some students begin educating others (friends, roommates) about LGBT issues, especially about the harm of using homophobic language.

It seems my gamble paid off. LGBT content does indeed support deeper statistical learning. Likewise, a solid statistical toolkit helps students engage the complexity of LGBT debates instead of settling for simplistic answers.

**REFERENCES**


Preparing Globally Competitive, Collaborative, and Compassionate Students

Faisal Jaswal, assistant dean of Student Programs, Teresa McClane Jaswal, assistant director of the Center for Career Connections and the Women’s Center, and Star Hang Nga Rush, director of the Center for Liberal Arts—all at Bellevue College

Higher education has engaged in much discussion about the need to prepare students to be globally competitive in this increasingly complex world. But at Bellevue College (BC), we see helping our students become globally collaborative and compassionate as equally important.

With a single campus located east of Seattle, BC serves over thirty-four thousand students each year and is the third-largest educational institution in Washington state. BC is primarily a community college, preparing 55 percent of its students for transfer and 45 percent for professional and technical careers. Our students come from all walks of life and have diverse needs. Sixty-five percent of students work while attending school, and 22 percent have dependent family members. Some students already have higher education degrees, and many will need to “stop out” at various points for financial reasons. But regardless of their backgrounds or educational levels, our students are interacting in a globally connected environment.

At BC, we believe that global education needs to be available to all students at all levels of education. We believe that students can develop global competencies along multiple educational pathways: in general education, in major-readiness courses, in professional and technical programs, and in developmental education (Jaswal and Rush 2009). Whatever their backgrounds, all students deserve the opportunity to benefit from learning that connects them to the global community.

Experiential Learning

BC has sponsored several student-led trips abroad and nationally that enact our vision of helping students become globally competitive, collaborative, and compassionate through applied interdisciplinary learning.

In 2006, professional and technical business students and students in the business administration transfer program collaborated to form the International Business Exploration Club (IBEC). IBEC students wanted to apply the theories they had learned in the classroom by selling organically grown fair-trade coffee to raise money for the village of Santa Anita, Guatemala, where the coffee originates. In collaboration with an organization called Pura Vida, the students traveled to Guatemala, where they helped coffee farmers grow and harvest their crops. After returning home, the students applied their learning and shared their knowledge with the campus community through year-long academic internships.

Similarly, students from across disciplines came together in 2002 with the support of Student Programs to form the Rotaract Club, a junior chapter of the Bellevue Rotary. The students are currently raising awareness about disabilities by working with the local Rotary, with our sister Rotaract Club in Patan, Nepal, and with students from our Venture Program (an occupational associate degree program for developmentally disabled students). Rotaract students traveled to Patan in May 2009 to work with people with disabilities and the organizations that support them. Using the training and insight they gained, the students will participate in yearlong academic internships to support disability awareness activities on and off campus. The project is documented at www.youtube.com/watch?v=qgu3CL7VH0U&feature=related.

Beyond Silos

How did BC create these programs within the constraints of today’s tightening budgets? It took the vision of our students and faculty members, the support of the Student Programs office, and the collaboration of several campus units and community members. Funding came from various sources: the BC Foundation, student and activities fees, fundraising efforts by student clubs and programs, contributions from community organizations, and small personal contributions by each student.

In other words, it took a lot of work and extensive collaboration—but the results have been well worth the effort. Our students’ experiences help us renew our commitment to preparing all students to succeed in the global community. Through these and other efforts, we hope to create diverse, ethical, and compassionate leadership that will define our world’s future course.

REFERENCE

I’ve been thinking a lot about the “mash-up” as a metaphor for how so many of us try to lead our professional and private lives today. The mash-up, of course, is a digital remix of existing images, text, sound, and other elements into some new work. In life, the analogue is the intentionality with which so many of us create and fashion ourselves over time by engaging with religions, cultures, and traditions from periods and places different from our own.

To be certain, this collaging of the old to form something new is hardly novel. What, after all, would the Roman Empire have been without the crossroads of the Mediterranean? An Earth, Wind and Fire concert without a swirl of the ancient and futuristic? And we all know that the remix has long been a staple of hip-hop. What is new, I think, is the effortless zeal with which ordinary folks today, fueled by the Internet, peace-fully pursue new ideas, information, culture, and technology, seeking to interact and blend with it rather than simply consuming or appropriating it.

Lawrence Lessig, the founder of Creative Commons and a leading figure of the Free Culture movement, gave a brilliant talk in March 2007 on this new culture and the Internet’s role in driving it. Lessig described what he calls a “read-write culture,” where the reader, aided by modern technology, is a participant and shaper (writer) of content. He celebrated the democratic potential of cultural production enhanced by widespread access to twenty-first-century technologies and urged his listeners to embrace the inevitable shift toward a read-write model.

Indeed, evidence of mash-up culture is everywhere. It’s in Malian artist Rokia Traoré’s fusion of African, European, and U.S. styles in her music. It’s in the work of artist DJ Spooky, whose recasting of D.W. Griffith’s The Birth of a Nation is overlaid with hip-hop beats and the haunting sounds of a string quartet. It’s in the global reach of the hip-hop community, in the user-driven content of YouTube, and in the spirit of shared Google apps. A few months ago, a colleague forwarded me an article about a New York gallery’s recent “S&M: Shrines and Masquerades in Cosmopolitan Times” exhibit, which was a hodgepodge of cultural iconography from the United States, Africa, and elsewhere. Of the pieces mentioned in the article, one was an image of Michael Jackson’s face painted onto Ghanaian cloth. Another was a tent that functioned as a shrine, a workshop, and a home—in the words of the writer, an “Afro-futuristic vision” that “owe[d] as much to Sun Ra as to the quilters of the American South and tribal crafts” (Cotter 2008). Intriguing.

So what are the implications for education? It seems to me that schools, colleges, and universities...have the responsibility of ensuring that all students have access to the shared wealth of remixable “content” in our world.

Schools, colleges, and universities...have the responsibility of ensuring that all students have access to the shared wealth of remixable “content” in our world.

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EDITOR’S NOTE: This article originated in a March 12, 2009, posting on Full Agenda, Misha Charles’s personal blog on education and politics (fullagenda.blogspot.com). The views expressed here are those of the author and do not necessarily reflect the official policy or position of Keene State College.
Envisioning Interdisciplinarity: The Art and Science of Environmental Sustainability

LAUREN F. HOWARD, assistant professor in the Department of Biology, and GREGG MOORE, associate professor in the Department of Art and Design—both of Arcadia University

“Think globally; act locally.” In the context of ecological sustainability, these words suggest an important outcome we want all our students to achieve: the ability to frame their individual choices and actions in a global environmental context. Interdisciplinary teaching that combines ecology and studio art provides a unique way to pursue this outcome. By merging these two disciplines, we have found a means of connecting our students’ local experiences of personal consumption with a globalized understanding of science and art.

In July 2007, when Arcadia University was planning a major revision to its undergraduate curriculum, we participated in AAC&U’s Shared Futures institute in Sonoma, California. The institute focused on interdisciplinary curriculum development with an emphasis on global connections and environmental sustainability. In one institute session, we encountered the challenge, “If you could create an interdisciplinary course with a colleague who is here today, what would you teach?” Out of this question grew Envisioning Sustainability: Contemporary Art and Environmental Science, a seminar we taught for the first time in the spring of 2009.

The synergism of students from two backgrounds (art and science) enhanced the learning environment for students of various majors.

Planning and Execution

In conceptualizing the course, we looked toward Arcadia’s new undergraduate curriculum and its University Seminar framework. According to the curriculum, University Seminars are “designed to make intellectual connections among academic disciplines and between scholarly ideas and the world beyond the classroom” (2007). Interdisciplinary in content and global in context, these seminars are no small challenge to design. In preparing the course, we met weekly for two semesters to brainstorm course content, links between our fields, possible student projects, local field trips, and an organizational scheme. We also built a course Web site to deliver content (readings, podcasts, videos, and images) to students. During the course, students upload images and data to the Web site as part of their experiential learning.

We settled on a course design that includes semiweekly three-hour meetings structured alternately as a lecture–seminar and as a lab–studio. In the lecture–seminar sessions, we discuss the science of sustainability issues (food, waste, and energy) and the artistic presentation of sustainability. The lab–studio sessions provide time for scientific data analysis and creative work, including long- and short-term experimental and artistic projects.

We designed the course to weave subject matter together in a truly interdisciplinary fashion, rather than to alternate subjects in a multidisciplinary manner. Within the course, scientific content forms a framework for artistic work, and vice versa. While teaching students the science of environmental sustainability, we encourage them to see art as a critical lens through which to view these issues.

Our overall objective in teaching Envisioning Sustainability is to expose the relationship between contemporary art and science with a specific focus on environmental sustainability and global interdependence. Within that framework, we aim for students to (1) understand contemporary artistic conventions and the relationship between contemporary art and science; (2) develop literacy in visual representations of scientific information through the use of mobile devices and digital technology; (3) create digital and physical works of art in which content relates explicitly to scientific analysis of sustainability; (4) understand the impacts of daily choices on the environment, biodiversity, and human health; and (5) understand the connectivity and unity of life through topics from evolution and ecology.

The course’s overarching goal is for students to become educators, able to articulate to others the impact societal choices have on the environment.

Bridging Art and Science

The spring 2009 section of the course drew a mix of students from the sciences, arts, and other disciplines, each bringing different skill sets to the learning enterprise. The science students had experience working with, interpreting, and making graphical representations of data; similarly, the art students were experienced in considering art as a vehicle to communicate ideas and provoke thought.
The following two examples illustrate how course assignments bridged the gap between these approaches and skill sets.

During our unit on energy, we initiated an in-class case study of three artists or works of art, including photographs of American landscapes affected by industrial production and pollution, a sculptural installation consisting of several tons of coal arranged to suggest that the viewer is in a coal mine, and a performance piece in which the artist released six kilograms of carbon dioxide into the atmosphere while standing on an ice shelf in the Arctic. We divided students into three small groups to review and discuss these works’ meaning and effectiveness. Each group read artist statements and critical essays, formulated questions to stimulate discussion, and presented their findings to the class. Drawn in by the artworks’ emotional impact, students examined a broad range of topics, including aesthetics, geopolitics, social critique, the role of science in art, and art’s potential to create social change.

In our unit on the sustainability of food systems, we instructed students to record and photograph everything they ate for three weeks. Students analyzed their personal datasets to determine such factors as the likely distance their food travelled to reach them and the acres of land necessary to produce their diets. One of the most illuminating analyses came from students’ determination of what percentage of their food contained high fructose corn syrup, a staple of the American industrial food chain. Students assembled graphs depicting what they had learned and created works of art interpreting their experiences collecting data. They exhibited these representations at a gallery exhibition titled, “Corn Bred: Are You What You Eat?” (Figure 1). Students’ analytical and creative processes were the driving force behind the exhibit. While the science majors in the class helped others summarize and depict data in graphical form, the art majors brought an element of visual poetry to the presentation. The result was social critique, an educator’s tool to change the world for the better.

Thus the synergism of students from two backgrounds (art and science) enhanced the learning environment for students of various majors. The assignments, discussions, and gallery exhibitions melded the two disciplines, encouraging students to think multidimensionally and to look to each other for guidance and critique. The course design required students to understand topics in biology as background for effective art, and conversely to see art as an effective way to communicate scientific ideas. The different perspectives students brought to class stimulated discussion, creativity, and deep thinking beyond what either group could accomplish in a classic disciplinary setting.

Reflection
From an ecologist’s perspective, one of the greatest benefits of a course like Envisioning Sustainability is that it exposes students from diverse disciplines to important ecological principles. In addition, it introduces future scientists to art as a means of universal communication not normally used within scientific disciplines. Through its links to science, art becomes both a means of understanding the natural world and a vehicle to communicate scientific ideas beyond the scientific community.

From an artist’s perspective, the interdisciplinary format shifts the pedagogical focus from the technical aspects of the creative process toward a conceptual approach to art. Students learn to assimilate scientific information through works that communicate a personal connection to and grasp of the subject matter. Through production and peer critique, students evaluate the effectiveness of art as a means of depicting scientific data and communicating with an audience.

We believe that it is the university’s duty to educate responsible citizens of the biosphere—people who will vote, consume energy and resources responsibly, and teach these lifestyle choices to others. We want our students to talk proactively about solutions, both local and global, and understand their role in those solutions. Art provides one gateway to these lessons as it makes global science personal.

A public version of the Envisioning Sustainability Web site is available at web.me.com/aussustainability/EnvisioningSustainabilityPublicSite/Home.html. 

REFERENCE

Global Design Studio: A Holistic Approach to International Service Learning

DAVID JAN COWAN, director of and associate professor in the Architectural Technology Program at Indiana University–Purdue University Indianapolis (IUPUI)

Global Design Studio (GDS) is a student-run international collaboration that directs and implements hands-on humanitarian service projects. In 2003, faculty and students in architectural technology programs at Indiana University–Purdue University Indianapolis (IUPUI) and the College of the North Atlantic (CNA) in Newfoundland, Canada, planted the seeds for GDS. GDS initially focused on architectural design and construction, but this was only a starting point. My cofounders and I aimed to build a community that understood civic engagement as requiring an alliance of individuals with diverse experiences and skill sets. We saw that diversity increases capacity to address client needs and engenders learning across disciplines.

As educators concerned with improving and expanding learning opportunities, GDS faculty sought ways to tie student learning to our professional work outside the classroom. This was not a hard sell, as students seek experiential learning to round out their educations and résumés, establish industry contacts, and connect with other students, institutions, and cultures. Through GDS, we have formed friendships and business relationships with colleagues and professionals committed to helping students showcase their skills and leave their imprint on others’ lives. Over the past six years, GDS’s footprints have spread throughout the world, with over nine partnerships, and connect with other students, institutions, and cultures. Through GDS, we have formed friendships and business relationships with colleagues and professionals committed to helping students showcase their skills and leave their imprint on others’ lives. Over the past six years, GDS’s footprint has spread throughout the world, with over nine partnering institutions in Indonesia, Thailand, Europe, and the Caribbean, as well as in the United States and Canada.

Project Example: New Orleans

For several years, GDS has helped the Broadmoor community in New Orleans recover from the aftermath of Hurricane Katrina. GDS began its work in New Orleans by helping local residents redesign their homes to stand above the floodwaters. GDS students at Gadjah Mada University of Technology (UGM) in Indonesia worked in concert with GDS students from Canada and the United States who had visited the site. The students exchanged photos, held videoconferences, and engaged in face-to-face conversations with the client to develop solutions to client needs.

Over time, we have partnered with local architects and designers and taken over fifty students on alternative spring break and other trips where they have helped physically rebuild the community. Our partners in Indonesia have developed urban design schemes for communities in New Orleans, while our American students have worked on prototype designs for individual houses. Partners at the College of the North Atlantic in Canada have sent teams of students to the Broadmoor neighborhood to design streets, drainage systems, and sidewalks. Students in other GDS schools have helped select furniture, develop color schemes, and create animated videos and oral histories that document the community’s stories.

—David Jan Cowan

Elements of a Name

GDS’s work is informed by the three components of its name:

Global implies the search for an understanding of diversity, both in the world and in oneself. Each GDS community represents a diverse mix of individuals, and each community faces unique challenges. Similarly, each GDS participant is a complex individual with untapped skills and strengths that GDS attempts to uncover, nurture, and develop through team-intensive exploration. GDS believes that global work begins in one’s own backyard, and we reach out to our immediate neighbors as well as our neighbors around the world.

Design implies the sensitive structuring of an environment. In architectural design, the designer’s reward is to see physical objects improve and sustain community life. In the GDS context, we envision design-as including those who do not see themselves as designers. GDS encourages all participants to recognize the designer within and realize their impact on the world, whether as artists, writers, scientists, or engineers.

Studio speaks to the organization’s collective framework. GDS creates a repository of core competencies and expertise that we draw on to tackle complex projects. Collaborations between business majors, art students, and anthropology majors at different institutions help us identify more complete solutions to complex problems. Likewise, we may call on an Indonesian partner with expertise in disaster reconstruction to assist with a project in the United States, contact GDS’s industry experts for advice on solar panel construction, or seek guidance from community leaders regarding methods to encourage community participation. This system highlights team accomplishments over those of individuals, underscoring that one person alone cannot raise the walls of
the communities we rebuild. What better way to examine the power of diversity and teamwork than through application?

**Logistics and Pedagogy**

We encourage faculty to interface with GDS projects at whatever level best suits their classroom needs, personal budgets, time restrictions, and curricula. Faculty often identify potential projects through their extensive industry contacts (although students also recommend clients). Student leaders assigned to each project help arrange logistics, control the design process, and oversee construction. Throughout this process, we listen carefully to our community partners to ensure that the projects support their needs.

We often find that the more flexible the process and the participants, the greater the likelihood of success. Thus GDS supports collaboration in whatever fashion best fits each project. If students need to work synchronously, we provide the tools (videoconferencing, Skype). If the project requires travel to a remote community, we send those who can afford the journey and electronically link those who can’t. We take a three-pronged approach and always have a local, national, and international project in process. In spring 2009, for example, one group of students worked on a local residential project, while another traveled to Hawaii to work with the homeless. A third group traveled to Thailand during the summer to help redevelop floating markets. Thus participants enter at the level that fits their finances and interests.

GDS’s predeparture assignments and postexperience sessions lead students on a path of discovery where they critically assess their values, biases, and viewpoints. Students working within communities get to “imagine themselves as valued professionals whose work really matters, and to align their vocation with their values” (Porter 2003, 51). GDS thus initiates students into the professional work that they will pursue upon graduation, with projects ranging from signage design to urban design to process design and programming, and products including houses, plans, sidewalks, playgrounds, documents, and marketing strategies.

The GDS model operates across institutions, and each has a slightly different approach to project logistics. It is typically difficult to transfer credit hours, finances, and personnel between departments and institutions, and different GDS partners have different approaches to these challenges. At IUPUI we have overcome barriers by offering directed study courses to students who need credit hours. We have also registered GDS as a student organization, a tactic that attracts more students and opens the door to more funding and marketing opportunities.

**Future Directions**

We are now beginning to consider developing GDS into a nonprofit organization. It is typically difficult to transfer credit hours, finances, and personnel between departments and institutions, and different GDS partners have different approaches to these challenges. At IUPUI we have overcome barriers by offering directed study courses to students who need credit hours. We have also registered GDS as a student organization, a tactic that attracts more students and opens the door to more funding and marketing opportunities.

What better way to examine the power of diversity and teamwork than through application?

We have also found it necessary to limit new projects and focus on developing sustainable, lasting partnerships, although we continue to embrace the involvement of more students and faculty, particularly from differing disciplines. By constantly reevaluating our goals and objectives, we propel ourselves into the future.

Over the past six years, GDS has grown far beyond our initial expectations. We have seen that, as Boyer notes, civic engagement in higher education is fertile ground for developing student leadership (1994). By approaching problems holistically, engaging multiple disciplines, and stressing teamwork over individualism, we can travel the long, hard path to developing an internationally collaborative environment where students can prepare for principled action in the world.

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[RESEARCH REPORT]

Surveys Suggest Positive Trends Related to Diversity and Civic Education

Two recent surveys by the Higher Education Research Institute (HERI) at the University of California-Los Angeles suggest positive changes in faculty and student attitudes toward diversity and civic engagement goals in higher education. HERI researchers reported these promising findings in “The American College Teacher: National Norms for the 2007-2008 HERI Faculty Survey” and “The American Freshman: National Norms Fall 2008.”

In “The American Freshman,” researchers reported that more than half of incoming full-time students described themselves as “above average” or “top 10 percent” in a range of skills collectively summarized as “pluralistic orientation” (including “ability to see the world from someone else’s perspective” and “tolerance of others with different beliefs”) (6). Multiracial students rated themselves more highly across all categories than students of any single race or ethnicity (6). Researchers also reported the highest level of political engagement in the survey’s history, with 35.6 percent of students reporting that they had “frequently discussed politics in the past year” (3). The percentage of students who report that “keeping up with political affairs is an ‘essential’ or ‘very important’ goal” (39.5 percent) has also continued to rise since falling to a historic low in 2000 (4).

In “The American College Teacher,” researchers likewise reported faculty beliefs that support student development in the areas of diversity and civic engagement. Nearly all faculty (93.6 percent) believe that campus diversity “enhances the educational experience of all students” (13), and few faculty (23.7 percent) believe that “promoting diversity leads to the admission of

Educational Access during an Economic Downturn

The Higher Education Research Institute’s recent report indicates promising trends in faculty members’ goals for their teaching. Yet these goals are ineffectual for students whose pathways to the classroom are interrupted by economic distress. The following suggest some economic challenges that hinder students on the road to higher education.

College Participation for Low-Income Students

The February 2009 issue of Postsecondary Education Opportunity highlights a 19-percentage-point gap in participation rates between students from low-income families and their more affluent peers. In 2007, 23.8 percent of students from low-income families participated in higher education, compared to 42.9 percent of all other students. These figures represent declining participation for both groups as compared to the previous year, and continue a pattern of declining participation for low-income students since 1999. The newsletter breaks down participation rates by state, identifies geographical patterns, and suggests a general convergence in participation rates for low-income students. To download the newsletter (available by subscription), visit www.postsecondary.org.

Financial Barriers for Undocumented Students

The College Board issued a new policy report on undocumented students and higher education in April 2009. Titled “Young Lives on Hold: The College Dreams of Undocumented Students,” the report draws from available data and new interviews to support the passage of the Development, Relief, and Education for Alien Minors (DREAM) Act. The report takes aim at the significant economic barriers for those undocumented students who are eligible to attend college, but cannot legally obtain financial aid or employment. With more than 65,000 undocumented students graduating from high school each year and immigrants and their children expected to constitute all of the U.S. labor force’s growth between 2010 and 2030, the report argues that providing access to affordable higher education is not only socially just but also economically necessary. To download the report, visit professionals.collegeboard.com/profdownload/young-lives-on-hold-college-board.pdf.
Remembering Ronald Takaki

With the death of Dr. Ronald Takaki on May 26, 2009, the higher education community and the nation at large lost a committed and inspired educator and scholar. As a pioneering chronicler of our nation’s continuing struggle to form that “more perfect union,” Takaki helped launch an intercultural education movement that has transformed the academy and significantly developed higher education’s capacity to educate all students for meaningful participation in our diverse democracy.

In his many publications and especially his award-winning book, A Different Mirror, Takaki helped us all see with greater clarity and understanding the many narratives that are comprised in our nation’s continuing struggles toward inclusive democracy and liberty and justice for all. His scholarship illuminates the power of American ideals to kindle hope in the face of adversity, even as his work also presents in unsparing detail the human and societal cost of the prejudice that different groups have experienced as they sought to take their own place in the larger American story.

Ronald Takaki’s work is, if anything, even more relevant in 2009, as it is a patient, evidence-based reminder that our progress toward a more open and mutually respectful society has never been smooth. It has always included—and includes today—contestations that are themselves a reaction to milestone accomplishments.

With humor, grace, generosity, and empathy, Takaki—through his scholarship and his teaching—demonstrated that engaging the diversity of our nation and its many braided narratives enriches us as individuals and deepens our understanding of our responsibilities as democratic citizens.

He understood that teaching about history, literature, and culture as part of a liberal education helps students develop the ability to take seriously the perspectives of others as a crucial and indispensable dimension of both critical thinking and civic responsibility. He knew that the ability to see the world as others see it must be a central aim of a college education and that when students develop this capacity, they are far better prepared to grapple with the complexity of this nation’s democratic ideals.

Across the many layers of AAC&U’s continuing work on diversity and democracy over the past two decades, AAC&U’s members have benefited both from Takaki’s vision and from his scholarship. A Different Mirror was a cornerstone text of AAC&U’s American Commitments summer institutes, through which hundreds of college faculty members developed their own abilities to teach about diversity, American history, and American struggles for justice—those won and those that continue to be waged.

His legacy is renewed in the scholarship and teaching of the many who have learned from him. As one of his former students noted on Facebook, “Professor Takaki’s class was one of the few I clearly remember for the profound change it had on the way I viewed myself as an Asian American and minorities in America as a whole. I feel privileged to have experienced his teaching and comforted that his words will live on in his books.”

AAC&U, too, is grateful that both his scholarship and his generosity of spirit will continue to inform our ongoing national dialogue about diversity, identity, democracy, and justice. We extend our sincerest sympathies to Dr. Takaki’s family and all his many former colleagues and students at UC-Berkeley.

EDITOR’S NOTE: A version of this text was originally published on June 2, 2009, at www.aacu.org.

REFERENCES


In Print


Drawing from data collected through the National Longitudinal Survey of Freshmen, this smart and comprehensive study illuminates the social, personal, and academic factors that influence students during the first two years of college. Taking a close look at the experiences of African American, Latino, Asian, and white students, the authors illustrate how certain stressors—including financial aid difficulties and internalized low expectations—disproportionately affect students from particular groups. Filled with important insights into students’ experiences, the book underscores the complexity of converging factors and suggests ways for colleges and universities to support all students.


Arising from a multiyear study led by Rutgers University’s Institute for Women’s Leadership, this volume pays tribute to the underrecognized faculty trailblazers who operate at the forefront of diversity work in higher education. By sharing strategies for institutional change based on case studies at a range of institutions, the collection makes important local diversity work available to a broad audience. Exploring how several higher education leaders have created new climates and shifted demographics, the volume suggests possible routes toward more inclusive institutions.

**The Diversity Challenge: Social Identity and Intergroup Relations on the College Campus**, Jim Sidanius, Shana Levin, Colette van Laar, and David O. Sears (Russell Sage Foundation, 2008, $45 hardcover)

This theoretically grounded study raises incisive questions about the promise of the multicultural campus. Using longitudinal data gathered from students at the University of California-Los Angeles, the authors examine how different facets of undergraduate life (roommates, friends, membership in ethnic societies) affect students’ attitudes and beliefs. While confirming that structured interaction with diversity can yield positive results, the study levels a strong critique against well-established aspects of college culture, including the Greek system. The book is a must-read for anyone interested in student interaction with diversity.

**A Journey to Unlearn and Learn in Multicultural Education**, Hongyu Wang and Nadine Olson, eds. (Peter Lang, 2009, $32.95 paperback)

In this volume of essays by teacher education students, editors Wang and Olson explore students’ learning processes as they begin their journeys toward becoming multicultural educators. Writing from their unique positions as both teachers and students, contributing authors provide a rare glimpse into the potential for multicultural education to shift the perspectives of those who engage in it and, by extension, their relationships with the world at large. Although anchored in the specific experiences of future and current teachers, the collection provides a moving glimpse into multicultural education’s powerful mechanisms.
Resources

Racial Equity Tools
Cosponsored by the Center for Assessment and Policy Development and MP Associates, the Racial Equity Tools Web site provides a compendium of helpful resources for educators and activists hoping to spark change within their communities. Designed to support social justice work at multiple stages, the Web site consolidates key readings and provides tips for applying them. To access the site's resources, visit www.racialequitytools.org.

Diversity and Inclusive Teaching
The Vanderbilt Center for Teaching’s Web site includes an array of resources for instructors teaching diverse student groups. Featured topics include tips for developing an inclusive curriculum and strategies for creating an inclusive classroom environment. The Web site, which links to external articles, is available at www.vanderbilt.edu/cft/resources/teaching_resources/interactions/diversity.htm.

Exploring Teamwork Essentials
Recognizing that students must learn skills for effective teamwork in order to be successful in work and in life, consultant Scott Boone created the Exploring Teamwork Essentials program to introduce students to core principles of teamwork. The program is designed for use in college classrooms or residential halls and emphasizes the importance of recognizing and valuing diversity. For more information, visit www.positivediversity.com.

Opportunities

Building Community Resiliency
In collaboration with the Coalition of Urban and Metropolitan Universities, Widener University will host Building Community Resiliency: The Role of University Leadership on October 11-13, 2009, in Philadelphia, Pennsylvania. The conference will focus on university leadership in pursuing approaches to promoting community success. For more information, visit www.cumuonline.org/conference/index.htm.

Race, Ethnicity, and Community Engagement in Higher Education
The 2009 conference on Race, Ethnicity, and Community Engagement in Higher Education will take place on October 29-31, 2009, at Texas Tech University in Lubbock, Texas. Sponsored by the university’s College of Education, the conference invites participants to explore “the intersection of cultural identity, diversity issues, experiential education and higher education studies.” For information, visit www.educ.ttu.edu/edhe/conferences/recengagement/.

NAME Annual Conference
The National Association for Multicultural Education will hold its nineteenth international conference on October 28-November 1, 2009, in Denver, Colorado. Titled A Mile-High Commitment to Change, the conference will convene educators from across disciplines, institutions, and educational levels to discuss the current state and future of multicultural education. To learn more, visit www.nameorg.org/conferences.html.

Diversity & Democracy

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Upcoming AAC&U Meetings

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AAC&U Associates

Enrollment in the Associate program provides an opportunity for individuals on AAC&U member campuses to advance core purposes and best practices in undergraduate education and to strengthen their collaboration with AAC&U’s Office of Diversity, Equity, and Global Initiatives. Associates pay $60 per calendar year and receive the same benefits as AAC&U Campus Representatives, including subscriptions to our print publications, *Liberal Education*, *Peer Review*, and *Diversity & Democracy*, electronic copies of *On Campus with Women*, invitations to apply for grant-funded projects, and advance notice of calls for proposals for institutes and meetings. For more information, please visit www.aacu.org or call Renee Gamache at 202-884-0809.

About AAC&U

AAC&U is the leading national association concerned with the quality, vitality, and public standing of undergraduate liberal education. Its members are committed to extending the advantages of a liberal education to all students, regardless of academic specialization or intended career. Founded in 1915, AAC&U now comprises 1,200 member institutions—including accredited public and private colleges and universities of every type and size. AAC&U functions as a catalyst and facilitator, forging links among presidents, administrators, and faculty members who are engaged in institutional and curricular planning. Information about AAC&U membership, programs, and publications can be found at www.aacu.org.

From AAC&U Board Statement on Liberal Learning

AAC&U believes that by its nature... liberal learning is global and pluralistic. It embraces the diversity of ideas and experiences that characterize the social, natural, and intellectual world. To acknowledge such diversity in all its forms is both an intellectual commitment and a social responsibility, for nothing less will equip us to understand our world and to pursue fruitful lives.