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Teaching for Change: The Leadership in Environmental Education Partnership

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Pitzer College is a member of the Claremont Colleges consortium and is located in Claremont, California, about thirty-five miles east of Los Angeles. Within Claremont, Pitzer's educational philosophy is singular; Pitzer strives to enhance individual growth while at the same time building community. A private, liberal arts institution, Pitzer enrolls about 900 students, and the campus is adjacent to the Bernard Biological Field Station, featured in this chapter.

Humans are transforming earth's landscape from a natural matrix with pockets of civilization to just the opposite. Most of us realize that this pattern is not sustainable. I live and work in Claremont, California, a charming college town in the midst of suburban sprawl. The town has a central village of terminally tasteful, overpriced bungalows nestled in the shade of tall, largely exotic trees. Indeed, most of the landscape of this "city of trees and Ph.D.s" has been imported; only a remnant parcel of coastal sage scrub that the Claremont Colleges have reluctantly preserved remains. The coastal sage scrub ecosystem, once the prevalent indigenous plant community in the Claremont region, is now endangered as a result of sprawl and inappropriate development. It was partly our experience of this disjunction between environmental past and present that led me to develop Pitzer College's Leadership in Environmental Education Partnership (LEEP).

LEEP provides place-centered environmental education for eight- to twelve-year-old children, while training college students in principles of environmental education that prepare them for the fields of teaching, environmental advocacy, and environmental nonprofit administration. To present an overall assessment of this endeavor, I begin with a basic description of the LEEP program, followed by a discussion of its founding, development, and some of the challenges it has faced. I conclude

with comments about the constant and ongoing efforts required to sustain LEEP.

The LEEP Program

Since 1996, LEEP has enabled approximately 150 college students and 870 schoolchildren from four elementary schools in the Claremont Unified School District to study ecological and environmental issues at the Bernard Biological field station. The Field Station, an 85-acre parcel contiguous with the campuses, contains an unusual variety of habitats. In addition to coastal sage scrublands, it harbors a constructed aquatic habitat (pHake Lake), a riparian zone, coastal oak woodlands, and vernal pools. It provides refuge to rich and diverse plant and animal populations, including such sensitive native plant and animal species as the Santa Ana River woolly-star, Nevin's barberry, Riverside fairy shrimp, southwestern pond turtles, coastal whiptail lizards, and cactus wrens. During an eleven-week unit, classes of school children visit the field station once a week for three hours to participate in interdisciplinary study of its native coastal sage scrub ecosystem.

LEEP provides hands-on lessons in environmental science, ecological diversity, human ecology, environmental awareness and appreciation, habitat restoration, and pollution prevention. Children and their teachers observe the habits of fauna, examine owl pellets and animal scat, study flora, gain knowledge of vernal pools, make sample collections, carry out laboratory analysis, and record their findings in field books. They participate in clinics addressing various environmental topics, including ethnobotany and local Indian traditions. They also carry out simple environmental restoration projects that improve biologically degraded portions of the station. These activities encourage the development of an environmental ethic and ecological identity. For some students, LEEP is their only connection with the beauty and diversity of our native ecosystem.

The four schools that currently participate in the program are relatively diverse, each with unique features. Mountain View School's student body is 38 percent Caucasian, with the remaining 62 percent representing other ethnicities. Vista del Valle serves a multiethnic population, and more than 68 percent of the students qualify for Chapter 1

funding. Sumner-Danbury is a joint campus where standard education students and orthopedically disabled and health-impaired students are fully integrated. Sycamore Elementary provides a multiage developmental program that serves students who speak eleven different languages. Of the 140 students who participate in LEEP each year, approximately 61 percent qualify for free or reduced lunch. Through LEEP, these children engage in cooperative problem solving and participate in activities that foster environmental responsibility and point toward sustainability. The children then go back to the classroom and connect their learning with their studies of biology, natural history, local prehistory, current events, and Native cultures.

Pitzer students in my course entitled "Theory and Practice in Environmental Education" <www.pitzer.edu/env-ed> serve as instructors for the elementary schoolchildren. In the course, college students are organized into four teams, each paired with one of the participating elementary schools. Over the course of the semester, the college student teams guide the schoolchildren's weekly visits to the field station. The children develop a rich and gratifying relationship with both the field station environment and their college mentors. Weekly, the college students meet as a class to explore larger theoretical issues related to their mentoring and to assess the progress of the children's learning experiences. Activities conducted through LEEP align with the California Content Standards for grades 4 through 6 in science, language, and history/social science. Field books, writing prompts, science exemplars, graphic assessments, and final portfolios attest to the balanced and rigorous nature of the curriculum. In addition to providing schoolchildren with much-needed environmental education, LEEP also exposes them to the college endeavor and provides them with college students as role models and mentors.

Our collective philosophy in LEEP is to approach environmental education in the spirit of celebration. We want to celebrate the land and its human and natural histories. Although we do not shy away from discussion of environmental degradation, we also do not want to fill our curriculum with examples of environmental abuse. "Environmentally correct" curricula can make children feel estranged from nature rather than coupled with it. My hope is that LEEP will help students to reinhabit our bioregion, to dwell in ways that acknowledge ecological limits and engender sustainability. By facilitating early environmental educa-

tion, LEEP aims to counter alienation from nature and endow youth with a strong and lasting kinship with the earth. Imprinting is deep learning at a critical stage of development, wherein an individual attaches momentous meaning to an object separate from the self. It is part of the natural development of all animals and is not easily unlearned. Early, deep exposure to the wonders and workings of nature can facilitate such an imprinting, a lifelong respect for the environment and a commitment to conservation. For this reason, outreach to schoolchildren is an important component of our efforts toward sustainability.

The mentor teachers and principals of the partnering schools form a motivated, engaged board of advisers. In addition to their central role as facilitators of the partnership, the board oversees curriculum planning, conducts field observations, and makes recommendations for strengthening the program. The participating schools share the results of their learning with the larger community through an annual open house at the Bernard Field Station that includes a family "scavenger hunt" (e.g., "find some scat and determine what animal left it and what it ate") and a display of student journals, photographs, art, and experiments connected with the project. Community leaders, parents, and educators come together to celebrate the learning and community impact of this collaborative effort.

LEEP is the cornerstone of environmental studies for our local public schools and has inspired a number of spin-off programs. One partnering school, for example, has developed an upper-grade science rotation that correlates with LEEP. In the spring term, the school offers students the opportunity to study one concept in depth. Students select from various science classes, including earth science ("Geology Rocks!"), chemistry ("Wait! Don't Mix Those!"), and environmental studies (LEEP). Another school has implemented green groups, including a recycling initiative and a campus relandscaping program that emphasizes greater use of native plants.

Founding and Development of LEEP

The history of LEEP is a web of intertwined ideas and motivations. The program emerged in 1996–1997 independently but concurrently with several important events, including the revision of Pitzer's Social

Responsibility Guideline and the naissance of the Claremont Educational Partnership.

Founded in 1963, Pitzer College is a liberal arts institution with a curricular emphasis in the social and behavioral sciences. Enrolling some 800 students, Pitzer is part of the Claremont Colleges, a consortium of five undergraduate colleges and (now) two graduate schools. Six of the campuses are physically contiguous, and all share such facilities as a central library, bookstore, and the Bernard Biological Field Station. In keeping with its 1960s heritage, Pitzer's educational philosophy strives to enhance individual growth while building community and is associated with the promotion of progressive social change. Students create their own academic programs in close collaboration with their faculty advisers. There are no lists of requirements; rather, students are guided by a set of educational objectives, one of which articulates a commitment to "Concern with Social Responsibility and the Ethical Implications of Knowledge and Action." By undertaking social responsibility and examining the ethical implications of knowledge, students learn to evaluate the effects of actions and social policies and take responsibility for making the world we live in a better place.

At Pitzer College, social responsibility is defined as awareness, knowledge, and behavior based on a commitment to the values of equity, access and justice, civic involvement, and environmental sustainability, and it is rooted in a respect for diversity, pluralism, and freedom of expression. To improve implementation of this educational objective, Pitzer introduced a specific guideline during the 1995–96 academic year that requires students to participate in a semester-long community-based service project. Students may pursue one of several options to meet this guideline, but the preferred method is an experiential-learning placement in the context of a course (e.g., LEEP). Following the introduction of this new guideline, Pitzer began to encourage its faculty to experiment with service-learning courses and to develop experiential learning projects.

While the vast majority of social responsibility courses are driven and sustained by the research interests of individual faculty members, LEEP emerged more out of passion than expertise. I am trained as a cultural anthropologist, and I direct LEEP largely as an add-on to my other responsibilities. As an academic generalist with diverse interests, I am engaged in preparing students not only to learn but also to act effectively

on their values and to participate in their communities. I strive to encourage proactive and intelligent responses to our social and ecological dilemmas. My academic strengths lay in a broad human ecology, which teaches that diversity, interdependence, and whole systems are fundamental to us and to the health of the planet. This is the passion that was the impetus for LEEP.

The introduction of Pitzer's new social responsibility guideline roughly coincided with the signing of the charter for the Claremont Educational Partnership, an arrangement between the Claremont Colleges and the Claremont Unified School District to promote increased cooperation between the colleges (individually and collectively) and the local public schools. It was formed with the conviction that a strong school system would enrich the community by fostering well-informed leaders for the next generation. Both the colleges and the school district benefit from these cooperative efforts. The public schools enjoy greater access to college-based experiences that include volunteer college student teachers, faculty development programs, the expanded use of technology in education, and greater library resources. And the colleges gain hands-on experience in the K–12 classrooms for their student teachers, interaction with potential future college students, and opportunities for students and faculty to participate in and grow through community service.

At the time of the signing of the charter for the educational partnership, a colleague of mine was director of the Pitzer Conflict Resolution Studies Program, which was already working with the public schools to implement mentoring and youth education projects. As a member of the partnership's new steering committee, she had substantive interaction with numerous local public school administrators. Through the partnership, we raised the idea of LEEP, identified appropriate schools, and made preliminary arrangements to implement the program.

With a $20,000 seed grant from Edison International, we purchased basic supplies, published a field book for student use, organized training workshops, and provided stipends to the mentor teachers. A number of foundations and organizations, including Singing for Change Charitable Foundation and the San Manuel Band of Mission Indians (the LEEP curriculum includes a component on Native American ethnobotany), have provided additional funding. The school district has provided matching funds, in-kind support, and release time for teachers. Pitzer College sup-

ports LEEP by offering "Theory and Practice in Environmental Education" as a regular part of the curriculum, providing assistance with grant writing, and maintaining the Bernard Biological Field Station.

Challenges

In the spring of 1997, the Claremont Colleges voted, amid significant controversy, to add a seventh college to the consortium: the Keck Graduate Institute of Applied Life Sciences. The colleges' board of fellows voted to give the Keck Institute, a commuter biotechnology college with strong ties to industry, 11.4 acres of the Bernard Field Station for its campus, despite overwhelming opposition by faculty and students and the existence of alternative sites. Many Claremont citizens, including representatives of the local Native American community (Gabrieliño-Tongva), for whom the land is an important cultural resource, opposed building on the field station. They gathered signatures for a ballot referendum, produced bumper stickers ("Save the Field Station: Claremont's Wild Heart"), entered floats in Claremont's annual Fourth of July parade, organized street corner demonstrations, and carried out community-wide leafleting. Ultimately, a lawsuit filed by a citizens' group, Friends of the Bernard Biological Field Station, led to an agreement to protect half of the station for a fifty-year period.

Open and ecologically sensitive land undoubtedly will become rarer in southern California, so if the field station continues to serve as a site for research and study, it will be even more valued, and the odds of its preservation will increase. All seven colleges in the Claremont Consortium contribute financially to its maintenance, and each college provides student and faculty access for study and research. LEEP currently represents the only public access. During the public debates about building on the field station, a number of community members expressed a desire for more public access. LEEP has significantly increased both academic use and public access to the property. Many people in Claremont view LEEP as a critical component in the movement to preserve natural habitat by educating future voters and policy makers to the value of this precious local resource.

Besides the obvious threat to the remaining coastal sage scrub ecosystem, the controversy over building on the field station raised other

issues, particularly with regard to the role of advocacy in the LEEP program. Both college and elementary students participated in public debates about the future of the field station. Invariably, these students had been exposed to the field station through LEEP. They testified to the Claremont City Council, attended Planning Commission hearings, and published letters in regional newspapers. In 2001, Students for the Field Station, a group of college activists, staged a protest demanding the preservation of the field station in perpetuity. They barricaded entrances to the Claremont University Consortium's main administrative building by chaining themselves to barrels filled with concrete. The police used forklifts to remove the barrels and arrested fifteen students for misdemeanor criminal trespassing and willful disruption. This protest secured Pitzer the number two place on *Mother Jones* magazine's annual list of Top 10 activist campuses (September–October 2001).

Such activism has annoyed top administrators of the consortium, who have been frustrated by community efforts to preserve the field station. The elementary schoolchildren's role in the debate has sparked particular controversy. For example, children from one of the LEEP schools recently participated in a student-generated activity in which they envisioned and sketched improvements to the field station. Designed to teach students how to think, not what to think, this activity generated a number of suggestions. Proposals to plant fruit trees and remove the native poison oak indicated that this exercise was not a one-sided activist's approach to the problem. Other suggestions included installing birdhouses, planting native shrubs around the perimeter fence, and mounting signs telling people to stay on the trail. There were some references to maintaining or expanding the station, but the majority of the suggestions did not address contested land use issues.

Nevertheless, the CEO of the Claremont University Consortium responded, "While the school children's ideas may be non-confrontational, I do object to the idea that they are being taught to 'plan' for the future of the Field Station. It is a small leap from that to advocating that the property remain a field station and/or completely undeveloped in perpetuity." In another memo, the CEO noted that "such actions could put the Colleges' and school district's support [of LEEP] in serious jeopardy." I was told that we were using the children as pawns in the political battle to preserve the land. I raised objections to these responses and noted that

the CEO's intention appeared to be to discredit and dismantle LEEP. I saw this as a curtailing of academic freedom and urged the consortium administration to leave curriculum planning to the professional educators engaged in the program.

Discussion of the land use controversy is decidedly not a sanctioned element of the LEEP curriculum, but the request that we avoid addressing the topic was an infringement on the process of democratic education. It is a fact that in our community, the field station is a contested parcel of land. Should college student instructors tell schoolchildren that they are not allowed to discuss this issue, even when the conversation develops naturally in the course of educational discourse? I discuss at length with my students the role of advocacy in environmental education. Although activism has an important place in many environmental education programs, LEEP is founded on the fundamental belief that children will develop their own passion to protect nature. Our role is to facilitate exposure to and knowledge of the local natural world. In the recent past, I asked my students to avoid discussion of the field station controversy, but the CEO's memo has alerted me to the inappropriateness of such a rigid position. The controversy is a central piece of the history of the land and deserved to be addressed. The line between service-learning and activism becomes blurred when students begin to love a reserve that administrators want to bulldoze.

Continuing Efforts

LEEP is a collaborative endeavor, which is exactly what makes it uniquely valuable and sometimes difficult. The complexities of collaboration are evident in the partners' differing perspectives on the relationship between environmental education and activism. The LEEP board of advisers approached the field station controversy as collaborators, acknowledging broad accountability and discussing how collectively to resolve the conflict. A representative from the board met with the school district's assistant superintendent, who agreed that the situation was of minor concern—the program had violated no educational codes. After reaffirming the value of LEEP to the school district, the assistant superintendent also stressed that we must be careful not to inhibit the flow of ideas. Ultimately, Pitzer's administration came out in strong support of

LEEP, and the president of the college noted that the envisioning activity was "a good and appropriate tool for teaching and learning."

Successful partnerships should not be measured by the absence of conflict, for this may simply be an indicator that difficult issues are not being addressed. Effective partnerships acknowledge the inevitability of conflict, and evaluation should be based on the extent to which conflict is resolved to the satisfaction of the partners. The LEEP program successfully emerged from the field station controversy, and all partners surfaced with a renewed commitment to the goals of the program. We successfully used the conflict to strengthen the collaboration. We used it as a springboard for discussions leading to consensus on issues of academic freedom and the value of outdoor environmental education. On the heels of the controversy, LEEP received a Circle of Excellence Award from the National Council for the Advancement and Support of Education. In the end, we were able to celebrate as well as critique ourselves.

LEEP is a collaborative effort, which is exactly what makes it uniquely valuable and sometimes difficult. The complexities of collaboration are evident in the differing perspectives on the relationship between environmental education and activism that the partners hold. The context and motivation for the collaboration differ somewhat between Pitzer, the partnering schools, administrators of the Claremont University Consortium, the Claremont Educational Partnership, the school district, and the students. Since disagreements arise from such differences, the partnership benefits from provisions for mediation and conflict resolution.

A sustainable future depends on teaching children to respect nature and each other. An important aspect of this educational process is helping students develop their individuality as well as their responsibility as members of the more-than-human community. Toward this end, Pitzer's College Council—the governing body of the college, which consists of faculty, student, and staff representatives—has adopted this Statement of Environmental Policy and Principles: "Pitzer College strives to incorporate socially and environmentally sound practices into the operations of the college and the education of our students. Pitzer exists within interreliant communities that are affected by personal and institutional choices, and the College is mindful of the consequences of our practices. A Pitzer education should involve not just a mastery of ideas, but a life

lived accordingly. We are thus committed to principles of sustainability, and dedicated to promoting awareness and knowledge of the impacts of our actions on human and natural communities."

By engaging children in the understanding and appreciation of their local environment, LEEP aims to foster values of citizenship and social

Reflections from a LEEP Sixth-Grade Teacher

It was cold at the field station today, but the drizzle was light. Seven college students were guiding seven teams of my students over eighty-five acres of protected sage scrub. I was backing off, wandering between groups, and letting the college students do the teaching.

Tadpoles in evaporating vernal pools. Will they survive until their pools fill up again?

A forty-foot thin black line on the mud. Looking closely, we see it is a line of drying toad eggs. Thousands upon thousands. Never to hatch.

Two vultures overhead. "What kind of birds do you think they are?" A cockatiel they guessed. "What kinds of birds do you see circling in movies or cartoons?" I prompt them. "Are those the kind you see when you hit your head?" they wondered. I just told them that they were vultures.

Coyote tracks in the mud.

And then, roaming alone between groups, I saw a small clump of some type of cereus cactus in bad shape. Decomposing, I thought. But then I saw some fresh cuttings, newly chewed. Squatting down I saw what I had only thought before to be dirt. It was rabbit scat; so thick I didn't recognize it.

The remains of the fresh cactus cuttings led back into a bramble of undergrowth about 20 feet in diameter. Dropping to my belly and lying prone, I waited. Moving closer, ever so slowly, I went into the undergrowth careful not to disturb anything. Ants. Droppings. Rotting sticks. Cactus cuttings led the way. Sitting upright was a black-tailed jackrabbit. She was quiet and still and looking right at me. I could see the whiskers half way up her face; the ones above the eyes, moving.

I turned my head and in one move she was gone.

I didn't think I would see anything more beautiful that day, but I did. All seven of the groups of students had been drawn to the largest vernal pool at the field station. Thousands of tadpoles had recently emerged.

And then he held her hand.

Ben Lopez [pseudonym] cannot work in groups. He is intelligent, but only cares about his grades. He argues every day with someone. I have never seen him help anyone, except when I ask him to do so, and then he does so only reluctantly.

(*continued*)

> Shy Nataly Yen [pseudonym] started to climb over a ten-foot mound of dirt to get to the other bank of the pool. Following Ben, her feet were slipping in the mud. No words were spoken, but Ben stood on top of the mound and held out his hand. Hers slipped into his. Gently, Ben helped her to the top and then let go easily when she made it.
>
> Rabbits, deer, robins, and sometimes
> People hear noises in the wild,
> In the bramble, in the bushes, on
> The side of winter pools of water, and
> They jump, or freeze, or the hair on the back
> Of their necks stands on end, and sometimes
> People hear feet slipping on a mound of mud
> Not fleeing, not freezing, but reaching out
> Extending
>
> Joe Tonan

responsibility. It provides college students with opportunities to teach elementary schoolchildren from diverse backgrounds about environmental concerns in the community. College students who participate in the LEEP program gain a respect for nature and habitat preservation that influences their attitudes toward the environment and, often, their choice of careers. One purpose of LEEP is to train future (and current) educators to create learning environments that offer every child the opportunity to gain a deeper understanding and appreciation of the human and natural community.

Revitalizing communities is key to ecological health and social harmony. Our current environmental crisis is symptomatic of our fractured relationship with the natural world and with each other. We are unlikely to succeed in appreciating and restoring the natural environment if we lack the knowledge and passion to restore human communities. Together with the participating elementary schools, Pitzer addresses both of these critical concerns through the LEEP program (see the box).

In many ways, LEEP is about extending: extending our learning outside the classroom, extending our relationship with the world, extending our understanding of others, extending our sense of community. In keeping with Pitzer's educational objectives, students learn to evaluate the effects of actions and social policies and to take responsibility for making the world in which we live a better place.

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