

Engaging the Business Community by Greening the Campus: The Edgewood College Experience

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Presentation for the 4th International Conference on Environmental Management for Sustainable Universities, June 26-30, 2006, Stevens Point, Wisconsin.

Abstract

This paper describes the evolution of a dynamic relationship being developed between Edgewood College and the local business community. The school is taking a leadership role by adopting best environmental practices through a “Green Campus Initiative.” Activities include applying for Green Tier status with the State of Wisconsin’s Department of Natural Resources and formalizing an Environmental Management System infrastructure. At the curriculum level, students enrolled in various courses have researched and implemented campus energy efficiency techniques and composed case studies that showcase environmentally friendly businesses. Now that we are “walking the talk,” the college will soon sponsor dialogues where these and other companies visit Edgewood College to examine some of our environmentally-friendly practices and then share their own best practices with others in their industry.

Introduction

Edgewood College is a small liberal arts college in Madison, Wisconsin, with approximately 1,500 undergraduate students and 1,000 graduate students. Like many other colleges and universities, Edgewood College has a core group of faculty members committed to greening the campus, the curriculum, the local community, and the organizations our graduates will help manage in the future. Many of these activities have stemmed from individual efforts by professors associated with our Environmental Studies Department, which offers a minor.

The college is situated on 55 acres of land adjacent to Lake Wingra, a 339 acre urban lake near the center of Madison, which is used for fishing and recreational purposes. The Wingra watershed is home to 33,000 people living in fourteen neighborhoods. For many years, Professor Jim Lorman has engaged students in his natural science classes to study the relationship between the lake, the college, and the community. Students extend their classroom learning by identifying and solving lake-related problems, and presenting the results of their work to the public. Other professors have likewise found ways to link environmental activities to their courses.

The greening of business, though, seemed to be a bit out of our reach. We indirectly tried to impact business behavior by educating the next generation of organizational leaders about the best environmental practices and the need to integrate the natural environment in their decision making process. But we wondered how we might be able to more directly impact businesses. Why should current businesses listen to us?

Mohandas Gandhi eloquently argued: “You should be the change you want to see in the world.” Only then does the messenger gain legitimacy. Rather than telling businesses what to do, the Environmental Studies faculty decided to make a concerted effort to more formally green the Edgewood College campus, and use that effort to engage businesses as a partner in greening operations, where both parties help each other become more environmentally friendly in a cooperative and neighborly manner. This paper tells some of that still evolving story.

Beginning Efforts

Change is only linear or rational after the fact. Change agents might have a general sense of how to get from here to there, but change involves a great deal of trial-and-error. Change agents must manage the unexpected obstacles and opportunities that inevitably arise, and appropriately redirect their efforts while not getting lost along the way.

I began teaching at Edgewood College during the Fall of 2002, after having taught at two other universities the previous twelve years [“I” here and elsewhere refers to the lead author]. My courses have a significant amount of learning-by-doing activities, and these usually take the shape of service-learning projects where students apply the knowledge they learn from the textbook in the local community, and then reflect on the experience.

Students in my general management courses learn about project management by managing a team project, such as teaching a class of high school students how the free market system operates. The students contact the local high school, negotiate the curriculum with the high school teacher, present the material in the high school class, and then reflect on how well they managed the project.

For my “Social Responsibility in Business” class I formed a partnership with the Boys & Girls Club of Dane County and several other nonprofit organizations. The Executive Directors and I develop a list of projects based on their “to-do” items. For instance, on behalf of the Boys & Girls Club student teams created a program guide for potential

members, a hiring manual for administrators, a training manual for new employees, and catalogued more than 600 donated books for their library.

I have received greater support for my service-learning projects at Edgewood College than at either of my previous employers. This was in part due to the school's Dominican heritage. Edgewood College was founded by the Sinsinawa Dominican Sisters in 1927 and they have embedded their order's five values of truth, justice, compassion, partnership, and community in the school's curriculum and operations. The college's mission statement states:

Committed to excellence in teaching and learning, we seek to develop intellect, spirit, imagination, and heart.... We foster open, caring, thoughtful engagement with one another and an enduring commitment to service, all in an educational community that seeks truth, compassion, justice and partnership.

They mean it.

Impact of Interdisciplinary Interactions

Shortly after my arrival I was invited to join the Environmental Studies Department, a group of interdisciplinary scholars and teachers whose cross-listed courses serve as the foundation for the Environmental Studies minor. The more I interacted with this unique group of faculty the more I integrated environmental issues in my business courses.

For my Spring 2005 MBA "Organizational Development and Behavior" course, I introduced a lecture on "The Natural Step Framework" (TNS). The students, who tend to be middle-level managers at local companies, calculate their own ecological footprint and then perform an environmental analysis of their company's operations. TNS, developed by Swedish scientists during the 1980s and 1990s, provides a common philosophy, language and approach for improving an organization's relationship with the natural environment. The MBA students focus on the first three of the four step analysis:

Step 1: **Reduce wasteful dependence on fossil fuels, underground metals, and minerals.** Substitute certain abundant minerals for those that are scarce in nature and use all mined materials efficiently

Step 2: **Reduce wasteful dependence on chemicals and unnatural substances.** Substitute certain persistent and unnatural compounds with ones that are normally abundant or break down more easily in nature, and use all substances produced by society efficiently.

Step 3: **Reduce encroachment on nature (land, water and wildlife).** Draw on resources from only well managed eco-systems; use them efficiently and minimize the manipulation of nature.

Step 4: **Meet human needs fairly and efficiently.** Use all our resources efficiently, fairly and responsibly so that the needs of all stakeholders – customers, staff, neighbors, people in other parts of the world, and people who are not yet born – stand the best chance of being met.

After applying TNS to organizational operations, MBA students develop a list of recommended changes, choose one of the changes that they could implement during the semester, and then engage the key change agent to make progress on the issue. Student achievements included:

- Conserving energy by turning off department computers at the end of the day
- Recycling or reducing the use of computer paper
- Providing healthier vending machine food options
- Installing energy efficient lighting and motion sensors
- Eliminating hazardous chemical use
- Donating no longer needed hospital supplies to developing nations
- Developing a ride share program

Simultaneously, I changed the nature of my undergraduate service-learning projects. There was a lot of energy on campus regarding environmental issues and I wanted my business students to become part of it. As a result, I shifted my focus inward and designed several campus-based environmental projects. Students in a Natural Science class had been conducting ecological studies for several years. My students studied those results, considered the management implications, and then implemented some of the organizational changes those studies suggested. Their accomplishments included:

- Implementing a recycling program for a residence hall
- Decreasing electricity use in a residence hall
- Reducing the amount of paper printed by students in the computer labs
- Selling reusable mugs in the cafeteria and advertising discounts available for using mugs instead of Styrofoam coffee cups
- Relocating smoking receptacles further from the entrance of buildings

The following semester, students experimented with methods to increase appropriate use of classroom recycling wastebaskets, researched the use of local food sources by the cafeteria, continued marketing the cafeteria's reusable mug policy, developed a website for the Environmental Studies program, reduced electricity use in a residence hall, and reduced heating use in one of the classroom buildings.

The Green Campus Task Force

During the Spring 2005 semester, Edgewood College's president announced plans to build a new 200 student residence hall. He welcomed faculty input on making the residence hall as environmentally-friendly as possible. In May 2005, the Environmental Studies faculty met on a retreat to explore achieving LEED (Leadership in Energy and Environmental Design) certification with state-of-the-art site development, water savings, energy efficiency, materials selection, and indoor environmental quality. The faculty also

created a “Green Campus Task Force” to more directly engage students, faculty and staff in developing an environmentally sustainable living and learning community on campus. I was appointed chair of the task force.

The Green Campus Task Force also desired to engage the business community in our environmentally-friendly developments, and vice versa. By establishing ourselves as an environmental leader, Edgewood College would have greater legitimacy in helping businesses adopt more sustainable business practices.

Approximately twenty Edgewood College faculty and staff attended the inaugural open invitation task force meeting held on June 6, 2005 at an environmentally-friendly café. After sharing their hopes and aspirations, the attendees created four green campus working groups:

- 1) Three-School Unity Working Group: Develop an environmental project, such as extending the boardwalk along the adjacent Lake Wingra, that would involve participation from students, faculty, and staff from Edgewood College, Edgewood High School, and Edgewood Campus School, which share the land owned by the Sinsenawa Dominican Sisters.
- 2) Eco-Student Organization Working Group: Create an environmental student organization.
- 3) Eco-Curriculum Working Group: Design curriculum that addresses environmental activities, such as eco-design, eco-poetry, environmental awareness, and environmental actions.
- 4) Edgewood College Environmental Indicator Report Working Group: Develop an indicator report to measure and benchmark our performance in creating an environmentally-friendly living and learning community on our main campus and Deming Way property.

The task force used the last activity – creating an environmental indicator report – to more systematically organize our individual environmental efforts in partnership with the college’s Environmental & Occupational Health and Safety (EH&S) Director. The EH&S Director’s direct involvement would establish greater legitimacy and support from college administration.

Case Studies on Local Environmentally-Friendly Businesses

As noted above, the Green Campus Task Forces’ dual strategy was to have both Edgewood College and local businesses adopt best practices in environmental management. In terms of the latter, it was essential to determine which local companies already had admirable environmental practices, and exactly what did they do that was environmentally-friendly.

These research questions became the focus of an on-going elective course I teach titled “Ethical Business Practices in Madison.” The course was initiated in the Spring of 2004 with the purpose of creating a database of local socially responsible business practices. For two consecutive semesters students researched socially responsible business

practices, interviewed company managers, and wrote case studies about them. Students also researched companies and individuals who went beyond the call of duty in serving at-risk kids and, in partnership with the Samaritan Counseling Center, determined winners for a newly created Good Samaritan award.

For the Fall 2005 semester, I more narrowly defined social responsibility in terms of environmentally-friendly business practices. Whereas I team taught the first three renditions of the class with a former mayor of Madison, I now elicited assistance from the Executive Director of Sustain Dane, a nonprofit organization that networks with business leaders and environmental activists who seek to transform Dane County into an environmentally sustainable community.

Sustain Dane's Executive Director was interested in showcasing several environmentally-friendly businesses on the organization's website. The students researched eight companies engaged in different industries (i.e., banking, manufacturing, architecture, construction, dry-cleaning, and electronics), interviewed their managers and community leaders, and composed case studies documenting their environmentally-friendly practices.

Our hope had been to initiate a dialogue in class involving managers from these firms, but only one company sent a representative to the class session where the students presented their research papers. This was in part due to a snow storm that landed on the city that day.

Walking the Talk: Developing Indicators

Each of the four Green Task Force working groups made significant progress during the academic year. The Indicator Task Force wanted to work in partnership with administration, rather than being viewed as a critic. As such, we realized that project success depended on our indicators and corresponding strategies being (1) systematic, (2) simple, and (3) cost-effective.

Further conceptual progress occurred as the result of my attendance at the EPA's "Smart and Sustainable Campuses" conference sponsored by EPA at the University of Maryland in November 2005. One of the "best practices" session focused on environmental indicators. The Campus Consortium for Environmental Excellence (C2E2), a nonprofit network of higher education institutions (www.c2e2.org), is in the process of creating a nationwide campus environmental indicator database to facilitate the sharing of information among campuses. The most meaningful C2E2 indicator categories for a campus of our size and nature are:

- 1) Hazardous waste and waste minimization
- 2) Energy use
- 3) Solid waste materials and recycling
- 4) Water use

Meetings were held among faculty, staff, and administrators over several months to determine specific items that could be easily measured for each of these four categories. Baseline data will be collected for each item during the Summer of 2006.

Green Tier Designation

The next building block in the process of greening our campus was a fortuitous opportunity. In November 2005, the state of Wisconsin's Department of Natural Resources (DNR) received significant publicity when three companies and two trade associations signed agreements to participate in its new Green Tier program, an innovative environmental initiative that had been in the developmental process for nearly a decade (www.dnr.state.wi.us/org/caer/cea/environmental). Beginning in 1996 with the formation of ISO 14001 working groups, the DNR met with business, environmental and academic leaders to create a cooperative program that would provide responsible companies the flexibility they need to exceed environmental requirements while boosting productivity and cutting costs. These discussions led to the formation of the Green Tier program, a voluntary system that recognizes and rewards superior environmental performance based on collaborative contracts, charters and environmental management systems (EMS).

I met with a DNR representative to discuss the feasibility of Edgewood College applying for an entry level Green Tier 1 agreement for proactive management teams. Green Tier charters, contracts, and agreements enable business sectors or companies to establish and meet environmental objectives. Green Tier 1 companies must develop a functionally equivalent EMS in accordance to ISO 14001 that includes an environmental policy, environmental planning, environmental implementation and operations, environmental measurement and corrective action, and management review for continuous improvement. Edgewood College would be the first college or university in Wisconsin to seek Green Tier status.

Benefits of Green Tier status include:

- Recognition for superior environmental performance
- Single point contact at DNR
- Use of Green Tier logo
- Opportunity to be a pioneer in regulatory reform
- Permit streamlining, modified monitoring requirements
- Deferred civil enforcement
- Differentiate Edgewood College from its competitors in attracting the type of students, faculty and business contacts that fit our college's mission.

The EMS must be audited on an annual basis by a certified EMS-ISO 14001 Lead Auditor. The first two years, the auditor could be internal to the organization. At Edgewood College, the responsibilities were added to those of our Environmental Health & Safety Director. Lead Auditor certification consists of a five-day ISO 14001 training workshop, at a cost of approximately \$1,800.

The third year, the lead auditor must be external to the organization. The third-year external audit is a four day process that is expected to cost approximately \$6,000.

In addition to providing an outline for an EMS, two other supplemental reports were required as part of the Green Tier application process. First, an environmental indicator report that would be used to measure continuous improvement. This was already being developed by a Green Campus Task Force working group. The second item was a report summarizing how the school has been an environmental exemplar. This information gathering exercise involved various units on campus, including facilities management, landscaping, and faculty who have engaged students in environmental projects. A draft of the report was shared with faculty, staff and administrators for their feedback. By training, faculty tend to be a critical and skeptical group of people. This report impressed upon them how much had actually been environmentally achieved by the college.

As these events unfolded, Edgewood College administrators became even more committed to LEED certification for a new residence hall. It became clear that differentiating ourselves as an environmental leader in Madison and southern Wisconsin had taken on strategic importance in the school's identity. A Kresge Foundation grant was obtained to offset some of the planning costs associated with LEED certification. These discussions inspired a meeting between high level executives of the college and the local energy utility, Madison Gas & Electric, to explore win-win partnership opportunities between the two organizations.

We now had sufficient documentation and new initiatives to claim that Edgewood College was indeed an environmental leader.

Eco-Olympics

Another benefit of the University of Maryland conference was a session featuring Duke University's Eco-Olympics, an energy, waste, and water reduction competition among campus residence halls (www.duke.edu/web/ESC/2005-10-31Eco-olympics.html). Students earn points for conservation and by attending environmental events pertaining to environmental education and impact reduction. The residence hall with the highest score at the end of the Olympics earns a prize, such as a Ben & Jerry's Ice Cream Party. I decided to manage Edgewood College's first Eco-Olympics as a service-learning project for students enrolled in my Social Responsibility in Business course for the Spring 2006 semester, culminating with Earth Day celebrations.

I obtained baseline water, heat, and electricity calculations for January 15 through February 15. The students in the five residence halls were then challenged to reduce all three factors during the next two months. The residence hall that reduced each item by the greatest percent compared to the baseline calculation would win a prize. During the semester, students enrolled in the Social Responsibility in Business course educated residence hall students about energy reduction techniques and sponsored environmental activities on campus. As a result, on average, the five Residence Halls:

- Reduced water use by 54%, with the winning residence hall reducing water use by 57% (280 gallons per student over 2 months)
- Reduced electricity use by 4.2%, with the winning residence hall reducing electricity use by 10.4% (40 kwh per student over 2 months)
- Reduced heat use by 17%, with the winning residence hall reducing heat use by 22.4% (6 therms per student over 2 months)

Engaging Businesses

With our house in more environmental order, we started brainstorming ways to more directly engage local businesses in sustainability efforts. In addition to showcasing our environmental accomplishments, we wanted to praise local businesses that are environmental leaders and put them in a mentorship role with others in their industry.

The first step in this process is to publicize the relatively large number of businesses in the Madison area that have environmentally-friendly practices. We want to get the word out locally and nationally that being environmentally friendly is a city expectation that many companies have accepted.

I contacted the publisher of *Madison Magazine*, a locally influential monthly magazine, about writing an article about three local environmentally-friendly companies, each of which had already been researched by students in my “Ethical Business Practices in Madison.” The three companies we chose address a different aspect of the environmentally-friendly management process – training, processes, and mission. Madison Cutting Die (MCD) trains its managers in The Natural Step framework, which is then applied to company operations. Best Cleaners is the first drycleaner in Wisconsin to exclusively use a technology that results in zero hazardous waste. Cascade Asset Management collects and resells computer and electronics parts rather than dumping them in landfills. The article will be published in the July 2006 issue. We hope this will be the first of a series of articles published locally about environmentally friendly business practices.

The article’s publication will be a prelude to sponsoring a series of dialogues held on campus where executives from environmentally-friendly companies share their experiences with others in their industries. While on campus, the business leaders will learn about, and experience, the environmentally-friendly practices already put in place by the college.

Another piece of the puzzle under development is the possible establishment of a Center for Sustainable Development at the college. Our initial hope is to attract innovative organizational leaders to campus who not only have a vision of an environmentally-friendly world, but have also been adopting environmentally-friendly practices within their own organization. The goal includes sharing best practices and practical advice. Dialogues will be established for each of the college’s three professional programs – business, education and nursing, thereby tying everything back into the curriculum.