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Article

**Every Day is Earth Day: Using a Latent Curriculum to Develop an Ethic of
Sustainability among College Students**

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As educators, colleges are in a unique position to inform future leaders about environmental issues. This paper reviews a specific plan for developing an ethic of care for the environment in students, based on the work of Aldo Leopold. The plan focuses on the latent curriculum, and argues that divisions of student affairs are best suited to develop it.

My fellow Americans, people all over the world, we need to solve the climate crisis, it's not a political issue, it's a moral issue. We have everything we need to get started, with the possible exception of the will to act, that's a renewable resource, let's renew it.

(Nagourney, 2007, para. 9)

So spoke former Vice President Al Gore at the 79th annual academy awards in February, 2007.

Gore's statement and the success of his film *An Inconvenient Truth* (Bender, Burns, Burns, &

Guggenheim, 2006) give support to the sustainability efforts currently seen on campus. College administrators are increasingly turning their attention to greening their respective campuses (Gorblirsch & Thibaudeau, 2007), whether for monetary reasons, in reaction to student activism, reasons of conscience, or just good practice. This increased awareness provides colleges with an opportunity to teach students about the environment, both in and outside of the classroom setting. This paper argues for the use of the latent curriculum to provide this education - and argues that divisions of student affairs should be at the forefront for developing the plans.

Regardless of the department within student affairs - be it residence life, facility services, student activities, dining services, or housekeeping - there is tremendous potential within student affairs for developing a latent curriculum (Bloom, 1972) designed to educate students about environmental issues. Colleges would be remiss if they simply developed sustainability projects designed to make their campuses green, without attempting to instill in their students an ethic of care for the environment. What is needed is a more comprehensive approach towards environmental education; a three-pronged approach that addresses the areas of education, operations and programs (Pophal, 2001/2002; Smith, 2002).

Literature Review

According to Daly (1999) one of the largest contributors to the current environmental crisis is over consumption. American (over)consumption in particular has had a direct impact in areas such as deforestation and diseases. Additionally there are many indirect environmental impacts caused by overconsumption that include increased soil erosion, general depletion of resources, loss of animal habitat, a reduction in the numbers and diversity of wildlife, and an increased risk of fires and flooding (Clough, Chameau & Carmichael, 2006; McKibben, 2007).

Americans make up only 5% of the world's population, yet consume 24% of the world's resources (Population Connection, 2007). Additionally, Americans produce 25% of all

greenhouse emissions. This information should serve as a warning that American behavior needs to change.

Related to the college campus, when one considers that the average college student creates 640 pounds of garbage each year (Ecomagination Challenge, 2006), and that the average residence hall creates 1465 pounds of CO₂ emissions each year (Powers, 2008), one can see that colleges play a role in the environmental problems. Fortunately, with over 17 million students enrolled in more than 4,300 colleges in the United States (National Center for Education Statistics, 2007), the potential for developing future leaders who can have a positive impact upon the issue of sustainability is enormous. By educating these future leaders and nurturing an ethic of care for the environment college, sustainability programs can ensure that their impact will be felt far beyond the college campus.

Student Affairs as Change Agents

According to Cortese (1999) higher education has been slow to respond to environmental issues because the compartmentalization found on campus does not allow for a systematic approach to attacking the problem. Similarly, Bowers (1998) argues that because environmental education has become an area of specialization identified as a branch of science, students who are pursuing degrees in other areas ignore the connections between the values and ideas they promote and the cultural behaviors that now threaten to overwhelm our ecosystems. “Universities are unique in their ability to help our nation, and the world, anticipate the future and develop a framework that allows us to respond rapidly with solutions” (Clough et al., 2001, p. 32). Unfortunately there are significant structural reasons why institutions of higher education are slow to respond to these issues.

We have organized both curriculum and research by fragments called disciplines, sub-disciplines, and departments, each of which deals with only small pieces of the total

picture. As a result, larger trends and patterns tend to be ignored within a discipline-centric context. (Orr, 1995, p. 44).

Student affairs is ideally situated to create a comprehensive program designed to educate students about environmental issues. While it is possible for students to avoid taking a class on environmental education, at multiple points in their college career students will come into contact with one or more student affairs offices. This provides student affairs with numerous opportunities to educate students on these issues. According to Garland and Grace (1993):

Serving as integrators within institutions, student affairs professionals stand to become more centrally and integrally involved in the direction of the institution. They will do so, however, only if they are able to integrate and apply theories of student development and institutional development, work collaboratively with faculty and other administrators in developing comprehensive responses, and join with students in recognizing the increasing need to integrate institutional practices with societal challenges and opportunities. (p. v)

This collaboration that Garland and Grace (1993) are describing positions student affairs administrators ideally to develop a comprehensive program to educate students on issues related to sustainability.

The Latent Curriculum

There are two types of curriculum in education, the manifest curriculum and the latent curriculum (Bloom, 1972). The manifest curriculum refers to courses, textbooks, syllabi, teachers, and testing. The latent curriculum, on the other hand, occurs primarily outside of the classroom. It develops skills, attitudes and values and helps to maintain the social order of society (Bloom, 1972). On college campuses the latent curriculum is largely the domain of

student affairs. One example of this is with student activities. Most activities offices on campus

work closely with their student government officers to develop leadership skills, and provide workshops related to ethical decision making. These are examples of the latent curriculum Bloom discusses.

Indeed, the latent curriculum is in many respects likely to be more effective than the manifest curriculum. The lessons it teaches are long remembered because it is so pervasive and consistent over the many years in which our students attend school. Its lessons are experienced daily and learned firmly. (Bloom, 1972, p. 343)

A survey by the National Wildlife Federation (2009) found that only 8% of colleges and universities require their students to take a course on the environment. This would suggest a number of possibilities, including the possibility that they are not learning about these issues at all. If we are optimists and assume that students are learning about issues related to sustainability, it leaves two options: either students are learning about these issues in non-required environmental courses, or they are learning about them outside of the classroom. It is in this last area that student affairs can have the greatest effect. Taking that approach, then, efforts towards environmental education that are supported by the division of student affairs should be focused outside of the classroom in an attempt to instill an ethic of care for the environment into students.

The Land Ethic of Aldo Leopold

The notion of an ethic of care for the environment is grounded in the work of Aldo Leopold (2004), who proposed the need for a land ethic. According to Leopold, “The extension of ethics to this third element (land) in human environment is an evolutionary possibility and an ecological necessity” (2004, p. 140). To Leopold a land ethic changes the role of humans from conqueror of the land to simply a member and citizen of the land-community.

Leopold's (2004) land ethic seeks to instill in humans a set of commandments to organize our personal (private) and corporate (public) lives. These commandments help develop a sense of global community from an ecological perspective. The commandments Leopold (2004) proposes include:

- Thou shalt not render species extinct
- Thou shalt exercise great caution when extracting energy from the soil
- Thou shalt not pollute waterways

Leopold's (2004) concern is that the conservation movement is inadequate to overcome the problems of environmental decay because it defines no right or wrong; assigns no obligation; calls for no sacrifice; implies that no change in our current philosophy towards the land is needed. In respect to land-use, Leopold (2004) laments that the conservation movement only urges enlightened self-interest. Can we say with conviction that things have changed since Leopold's time? "Obligations have no meaning without conscience, and the problem we face is the extension of the social conscience from the people to the land" (Leopold, 2004, p. 209). Unfortunately obligation infers sacrifice, as opposed to self-interest which places an ethic of caring for the environment in direct conflict with our economic structure.

In order to help students understand the complex environmental issues confronting them, a comprehensive approach to the issue of educating students about the environment is needed, one that will instill in students an ethic of care for the environment espoused by Leopold. This comprehensive, three-pronged approach focuses on these specific areas: education, operations, and programs/activities.

The Three Pronged Approach to Developing an Ethic of Care for the Environment

The notion of utilizing multiple ways to communicate with a population is firmly grounded in communications and public relations research. According to Pophal (2001/2002),

advertisers recognize that their sales messages need to be repeated multiple times before they make an impact. Multiple tools and methods of communication are needed in order for the message to be heard. Smith (2002) insists that it is a mistake to assume that one single categorization style suits every purpose. He recommends four categories of communication to deliver the message: Interpersonal communication (most effective but reaches the least number of people); organizational media (published by the organization); news media (uncontrolled by the organization); and advertising/promotional media (reaches the most people but has the least impact) (Smith, 2002). These categories complement each other, but not every category is appropriate for every issue:

With insight into the strengths and limitations of various kinds of media, communication planners try to create a tactical mix, using several types of communication activities to engage key publics in different ways that, blended together, will effectively achieve the organization's public relations or marketing objectives (Smith, 2002, p. 156).

In order to develop an ethic of care for the environment in college students, a college needs to employ aspects of all four categories of communication, with an emphasis on the first two. The three-pronged approach uses all four categories of communication in order to develop an ethic of care for the environment.

Education

According to Rowe (2002), all students need to learn how to help create an environmentally healthy and more humane world. To create these environmentally educated citizens a variety of measures are needed. Among the measures Rowe (2002) suggests are developing sustainability majors, requiring courses in environmental education, developing interdepartmental minors in environmental education, inserting sustainability into the school's mission, *and building a strong latent curriculum* (emphasis added).

Examples of the latent curriculum that could be utilized to educate students would be efforts in the residence halls to reach on-campus students. This could be accomplished through a series of posters, flyers, programs and speakers. Many residence life programs use programming models to assist resident assistants and hall directors, and a new category could be created that would include environmental education. Other departments that could develop educational programs would be plant operations (recycling education), dining services (education on organic food) and transportation (education on global warming due to car usage). We should not exclude the less obvious departments that could lend equally important educational components, such as career services who could bring to campus a series of companies and organizations known for the work they are doing on the environment.

Bloom (1972) maintains that the latent curriculum has the potential to impact more students than the manifest curriculum. Smith-Sebasto (1995), Rowe (1999), and Wolfe (2001) found that students who took courses in environmental education had a heightened awareness of and concern for the environment than their counterparts who did not take any courses, which suggests that developing a latent curriculum could achieve the same result. If the latent curriculum is more effective than the manifest curriculum in educating students, as Bloom maintains, then the effect of the latent curriculum will be powerful indeed in this area. “Where the manifest and latent curriculum are consistent and support each other, learning is most powerful” (Bloom, 1972, p. 343).

Operations

Every department within student affairs has the ability to contribute to a campus-wide “go green” campaign, some of which work nicely with the educational aspect of this three-pronged approach. For example housing departments can work with the residence life departments to install low flow showers and toilets. Not only will this save water, it will also

save money for the department. The residence life staff can advertise the fact that these items have been installed, which creates an awareness in students about what the university is doing and gives the students some ideas of what they can do to make a difference. If these efforts were combined with similar efforts to make students aware of water usage in the United States, and a program was developed to educate students about water pollution, then a small campaign could be undertaken about one particular aspect of the environment, using all three prongs that would help develop the ethic of care for the environment being discussed.

Another potential operations area that often falls under student affairs is the bookstore. Most bookstores frequently provide customers with plastic bags for each purchase. These plastic bags are not biodegradable and contribute greatly to the amount of trash going to the landfill each year. Bookstores could end this practice altogether and provide reusable bags for their customers at a minimal price. This program could be tied in with new student orientation and each student could be provided with a bag upon acceptance into the university. Offices of residence life could also participate by providing students living in the residence halls with a bag upon check in that would have all their needed information. This change could also become a mini-campaign utilizing all three prongs to educate students about the amount of limited landfill space available in this country and make them aware of the harm created by using plastic bags. Some departments within student affairs have a more obvious tie-in than others, but with a little creative thought and funding, all departments can make a contribution. The ideas presented here and in Table 1 are not meant to be comprehensive, but they are a starting point.

Table 1.

Examples of Sustainable Operations Practices Possible by Student Affairs Organizations

Department	Examples
Housing	Low flow showers and toilets can be installed in all residence halls to save water; cleaning supplies can be checked to insure they are as environmentally sensitive as possible; housing can work closely with plant operations to develop a campus-wide recycling program. Heat can be lowered in the winter; air conditioning raised in the summer.
Residence Life and Student Activities	Sufficient bicycle racks can be installed by every residence hall and student union; giveaways can be kept to a minimum unless they are biodegradable.
Bookstores	Bookstores can sign on to sweat-shop free agreements, and apparel can be purchased that is not made by sweatshops; reusable mugs can be available in the bookstore that can be used at the dining halls and campus markets.
Campus Markets	Discounts can be given to students using the mugs mentioned above and plastic bottles can be replaced with glass bottles.
Dining Services	Dining can work with the grounds staff and local farms to compost uneaten food scraps; to the degree possible, food can be purchased locally; vegetarian and organic food can be offered and encouraged.
Transportation	Buses can be provided not only to students, but to faculty and staff; campus vehicles can be hybrids; campuses can be made pedestrian friendly.
Orientation and Admissions	Probably the most important piece for this group is to let parents and students know what the campus is doing and to prepare them for what they are going to see on campus.
Financial Aid	Financial aid and campus foundation funds can develop 'screens' so that the funds are only invested in corporations that follow best practices in sustainability.
Other	All departments can purchase recycled paper for their printing needs; all computers and printer purchases can have the most up to date energy saving technology installed.

Awareness/Events

The third point of impact would be a campus-wide awareness program to develop an ethic of care for the environment. This awareness prong would have two objectives: 1) to educate students about the issues affecting the environment and 2) inform students about campus initiatives.

The recent interest in the topic of sustainability on the part of many college and university campuses has led to the formation of a number of organizations that could be utilized to develop these awareness programs. Organizations that have joined together to address issues affecting the environment on the college campus include the American College Personnel Association (ACPA) and the Higher Education Association Sustainability Consortium (HEASC), American College and University Presidents Climate Commitment (ACUPCC), Campus Sustainability Assessment Project (CSAP), and the Association for the Advancement of Sustainability in Higher Education (AASHE) (Higher Education Associations' Sustainability Consortium [HEASC], 2007a). In 2005 ACPA founded the Higher Education Association Sustainability Consortium (HEASC), which "seeks to help higher education exert strong leadership in making education, research, and practice for a sustainable society a reality" (HEASC, 2007b, para. 3). Besides ACPA, organizations such as the American Association of State Colleges and Universities (AASCU), the American Council on Education (ACE), and the National Association for Campus Activities (NACA), (among others), work together to support, promote, and enhance each others' sustainability efforts (HEASC, 2007a).

Additionally there are a myriad of non-university and/or student-run environmental organizations that are actively involved in educating students about the environment. Among the organizations are the Student Environmental Action Coalition (SEAC), Cool It/National Wildlife Federation, Greenpeace, Population Connection, U.S. Public Interest Research Group (PIRG), Alliance for Climate Protection, Environmental Defense Fund, and the Energy Action Coalition.

Co-sponsoring programs with these groups would, at a minimum, allow campuses to extend their budgets. These organizations also provide support and suggestions for campus programming.

Perhaps the single largest program designed to help instill an ethic of care for the environment is Earth Day. Started in 1970 by former Wisconsin governor Gaylord Nelson, a leading figure in the 20th century fight against environmental degradation, Earth Day was proposed as “a day when citizens nationwide would host teach-ins to raise awareness of environmental problems” (Nelson Institute for Environmental Studies, 2010, Nelson’s Earth Day, para. 2). Approaching its 41st year, Earth Day is now a widely recognized annual event organized by the Earth Day Network that affords campuses a prime opportunity to educate students about the environment. It also provides campuses with an excellent excuse to brag about their campus green efforts. Table 2 provides other suggestions designed to make students aware of the environmental issues affecting them.

Table 2

Examples of Sustainability Awareness Activities Possible by Student Affairs Organizations

Activity/Event	Description
Bike to Work Week	The League of American Bicyclists sponsors this event, held on the third Friday in May. This provides many opportunities to discuss transportation issues and how they relate to the environment.
Earth Day	Earth Day was originally held in April, 1970, and is now an annual event founded by the Earth Day Network (EDN). Earth Day promotes environmental citizenship and is a driving force steering environmental awareness around the world. Earth Day is the only event celebrated simultaneously around the globe by people of all backgrounds, faiths, and nationalities. More than a half billion people participate in Earth Day events every year.
On-going Poster Sessions	These posters would be prominently displayed in residence halls common areas, the student union, classroom areas, bathrooms, and the common areas. The posters could be tips on saving energy, or they could be reminders of what people should be doing to save energy. They could also tell people what the university is doing to save energy.

- Recycling Contests** Now in its 10th year, America Recycles Day, held on November 15 is a national day dedicated to encouraging Americans to recycle and to buy recycled products. This event is sponsored by the National Recycling Coalition and is an excellent opportunity to raise awareness by educating citizens about the benefits of recycling. Contests could be held similar to blood drives, pitting residence halls and academic units against one another. Colleges could compete against their rivals for state wide recognition as well.
- Energy Saving Costs in Residence Halls** The National Energy Foundation has been working with colleges and college communities to design contests for educators who want to encourage their students to develop energy saving behaviors. In addition to contests, housing and plant operations staff can undertake a comprehensive program of energy savings (light bulbs, shower heads, toilets) as was previously mentioned. These energy saving measures should be made known to student on the campus.
- Speaker and Film Series** This series could be done as part of an event (such as Earth Day) or could be done within the context of the school's regular speaker and film series. Regardless, the topic should be addressed every year and not just one time. Additionally, residence halls could sponsor spin off programs for students who want to discuss the speaker and/or film when they return to the residence hall.

Discussion, Conclusion and Recommendations

Ethics are grounded in instinctive feelings of love, respect and sympathy, not self-consciousness and calculating intelligence (Callicott, 1987). Callicott further suggests that a barrier to the establishment of the land ethic espoused by Leopold is the notion of community.

Anthropologically speaking, humans are very willing to consider how their behavior affects others within their immediate community but it is difficult to connect our local behavior with global environmental problems (Callicott, 1987). Much of the current debate about educational standards and reforms in the United States is driven by an overarching belief that we must prepare students to compete effectively in the global economy; little discussion is being held about the rapid decline in the habitability of the earth:

We still educate the young for the most part as if there were no planetary emergency. It is widely assumed that environmental problems will be solved by technology of one sort or

another. Better technology can indeed help, but the crisis is not first and foremost one of technology. Rather, it is one within the minds that develop and use technology (Orr, 1995, p. 44).

Through campus-wide conservation and sustainability efforts, student affairs personnel have an opportunity to instill in students a sense of care for the environment in their local campus communities that may translate on a global scale and compel them to address such issues in their professional and personal endeavors.

Suohua (2004) argues that in the aftermath of the Industrial Revolution, people regarded their own interests as the sole justifier for the exploitation of nature and, as a result, placed an excessive emphasis upon subduing and combating nature. Natural resources were regarded as limitless, ownerless, and priceless. Thus people used them to the fullest extent without having to take responsibility for these resources. These behaviors that have, on the one hand, earned people a great deal of freedom and wealth, have simultaneously produced an ominous environmental crisis. It is imperative that our value system which justifies single-minded pursuits of transforming and subduing nature be changed to one of respecting and protecting nature (Suohua, 2004).

Changing this attitude of subduing and transforming nature and replacing it with an ethic of care for the environment would be the goal of the three-pronged approach being proposed here. In order to help students understand the complex environmental issues confronting them, a comprehensive approach to the issue of educating students about the environment is needed.

Many colleges and universities in the last several years have developed presidential and advisory committees that specifically address the issue of sustainability. Cornell University's Sustainability Committee, which is comprised of graduate and undergraduate students, employees, and faculty, "advises, consults, and communicates with the University Assembly and its constituents on matters related to the development and implementation of community sustainability issues, policies, and programs" (Cornell University, 2009, Introduction, para. 1). Committees such

as this are vital to make recommendations to the president and influence university policy. In May 2010, for example, the University of Illinois at Urbana-Champaign's (2010) Office of Sustainability and Sustainability Council led the implementation of a comprehensive Climate Action Plan that seeks to make the University carbon neutral in 12 months. The plan outlines 11 core commitments, embedded in which is the use of renewable energy, a campus-wide bicycling plan, local food procurement, and water conservation efforts (University of Illinois at Urbana-Champaign, 2010). The action plan also recommends giving strong consideration to the addition of a full time staff member to carry out this work and incorporating assessment measures to determine the program's effectiveness.

As campuses embark on their respective green initiatives, student affairs divisions are provided with new opportunities to establish an ethic of care for the environment among college students. Ultimately, unless the hearts and minds of students are changed so that an ethic of care for the environment is nurtured in them, long term change in the area of sustainability will never be achieved. A determined effort, designed to educate and inform students, coordinated by student affairs has the potential to reach all students on campus and to instill in them this ethic of care.

References

- Bender, L. (Producer), Burns, S. (Producer), Burns, S. Z. (Producer), & Guggenheim, D. (Director). (2006). *An inconvenient truth: A global warning* [Motion picture]. Hollywood, CA: Paramount.
- Bloom, B. S. (1972). Innocence in education. *The School Review*, 80(3), 333-352.
- Bowers, C. A. (1998). Changing the dominant cultural perspective in education. In G. A. Smith & D. R. Williams (Eds.), *Ecological education in action: On weaving education, culture, and the environment*. New York, NY: State University of New York Press.

Callicott, J. B. (1987). *Companion to a Sand County Almanac: Interpretive and critical essays.*

Madison, WI: University of Wisconsin Press.

Clough, W., Carmichael, J-L., & Carmichael, C. (2006). Sustainability and the university. *The Presidency, Winter*, 30-38.

Cornell University. (2009). *Welcome to the University Sustainability Committee.* Retrieved December 18, 2010, from <http://assembly.cornell.edu/Sustainability/Home>

Cortese, A. (1999). *Education for sustainability: The need for a new human perspective.* Boston, MA: Second Nature.

Daly, H. E. (1999). Globalization versus internalization – some implications. *Ecological Economics*, 31(1), 31-37.

Ecomagination Challenge. (2006). *Waste.* Retrieved May 24, 2007, from <http://www.ecocollegechallenge.com/waste.html>

Garland, P. H., & Grace, T. W. (1993). *New perspectives for student affairs professionals: Evolving realities, responsibilities and roles* (ASHE-ERIC Higher Education Report No. 7). Washington, DC: The George Washington University, Graduate School of Education and Human Development.

Gorblirsch, J., & Thibaudeau, P. (2007, September). Continuous improvement key to college's sustainability efforts. *Building Operating Management.* Retrieved March 7, 2008, from <http://www.facilitiesnet.com/educationalfacilities/article/Continuous-Improvement-Key-to-Colleges-Sustainability-Efforts--7360>

Higher Education Associations' Sustainability Consortium. (2007a). *About HEASC.* Retrieved December 18, 2010, from <http://www2.aashe.org/heasc/about.php>

Higher Education Associations' Sustainability Consortium. (2007b). *HEASC statement of shared principles & responsibilities.* Retrieved December 18, 2010, from http://www2.aashe.org/heasc/resources/pdf/HEASC_Shared_Principles_6_5_07_Final.pdf

Leopold, A. (1949/2004). A Sand County Almanac and sketches here and there. In L. P. Pojman (Ed.), *Environmental ethics: Readings in theory and application*, (4th ed., pp. 139- 148).

Belmont, CA: Wadsworth/Thomson Learning.

McKibben, B. (2007, March/April). Reversal of fortune. *Mother Jones*. Retrieved April 19, 2008, from <http://motherjones.com/politics/2007/03/reversal-fortune>

Nagourney, A. (2007, February 25). Gore wins Hollywood by a landslide. *The caucus: The politics and government blog of The Times*. Retrieved April 5, 2011, from

<http://thecaucus.blogs.nytimes.com/2007/02/25/gore-wins-hollywood-in-a-landslide/>

National Center for Education Statistics. (2007). *Number of degree-granting institutions, by control and type of institution: Academic years 1974-75 through 2006-07* [Table SA-1]. Retrieved May 17, 2008, from

http://nces.ed.gov/programs/coe/2008/analysis/sa_table.asp?tableID=1053

National Wildlife Federation. (2009). State of the campus environment: A national report card on environmental performance and sustainability in higher education. Retrieved April 8, 2011, from <http://www.nwf.org/Global-Warming/Campus-Solutions/Resources/Reports/State-of-the-Campus-Environment-Report.aspx>

Nelson Institute for Environmental Studies. (2010). Meet Gaylord Nelson, founder of Earth Day:

The making of the modern environmental movement. Retrieved Dec 18, 2010, from

<http://www.nelsonearthday.net/nelson/>

Orr, D. (1995). Educating for the environment: Higher education's challenge of the next century. *Change*, 27(3), 43-46.

Pophal, L. (2001/2002). Ten steps to better communication. *CW Magazine*, December-January.

Population Connection. (2007). *Population connection: Education and action for a better world*.

Retrieved July 13, 2007, from www.populationconnection.org

- Powers, E. (2008, April 2). Comparing environmental data. *Inside Higher Education*. Retrieved from <http://www.insidehighered.com/news/2008/04/02/sustainable>
- Rowe, D. (1999, March). *Creating instructional leaders via an interdisciplinary project*. Paper presented at the Association for Supervision and Curriculum Development Annual Conference, San Francisco, CA.
- Rowe, D. (2002). Environmental literacy and sustainability as core requirements: Success stories and models. In W. L. Filho (Ed.), *Teaching sustainability at universities* (pp. 79-103). New York, NY: Peter Lang.
- Smith, R. D. (2002). *Strategic planning for public relations*. Mahwah, NJ: Lawrence Erlbaum.
- Smith-Sebasto, N. J. (1995). The effects of an environmental studies course on selected variables related to environmentally responsible behavior. *Journal of Environmental Education*, 26(4), 30-34.
- Suohua, L. (2004). Change in moral outlook is an important topic of environmental education. *Chinese Education and Society*, 27(4), 11-15.
- United Nations Educational, Scientific, and Cultural Organization. (1997, July). *Adult environmental education: Awareness and environmental action*. A series of 29 booklets documenting workshops held at the Fifth International Conference on Adult Education, Hamburg, Germany.
- University of Illinois at Urbana -Champaign. (2010). *A climate action plan*. Retrieved on December 18, 2010, from <http://sustainability.illinois.edu/ssc/about.shtml>
- Wolfe, V. (2001). A survey of the environmental education of students in non-environmental majors at four year institutions in the USA. *International Journal of Sustainability in Higher Education*, 2(4), 301-315.

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