

Catherine A. Henze

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Environmental Sustainability Project

Overview

For the Environmental Sustainability Project, I substantively revised ENG 364: Literary Topics: Environmental Literature. Given my background of working for Rocky Mountain Institute (an energy-efficiency think tank in Colorado), I was particularly interested in energy efficiency. This class was already in the process of revision for Quality Matters certification. The timing of the request that I be included in this project was perfect, particularly since the call came just prior to the start of the Fall 2014 semester, when I was scheduled to teach the class. Although the class already met the general education “sustainability” perspective, I felt that much, much more could be done.

Specifically, I changed the final project from a paper regarding a piece of land the students had been visiting to a “Sustainability Action Project,” which included a paper. For most students, the chosen project resulted in cost savings. However, in order to support the project I also needed to make changes to the learning outcomes as well as to the lectures (and the discussion questions and exams). Therefore, instead of “just” adding a sustainability project, I ended up substantively revising the course.

As will be detailed at the end of this report, right before the class ended, before I had had a chance to write up the report for the Environmental Sustainability committee, I was scheduled to complete revisions on the course for Quality Matters certification. Candidly, I was initially reluctant to include the “Sustainability Action Project” in the version of the course for Quality Matters, believing that it was too disjunctive—i.e., did not fit well with a discussion of literary authors. However, based on the enthusiasm of the students and the universally positive results, I decided it had to be included. So, instead of taking out this project, I further revised virtually all other aspects of the course so that it *would* fit.

In particular, I was moved by comments from a student from another continent, who I encountered in the library. An important part of my Environmental Literature class (before and after revision) was for students to visit a particular place in nature and then write about it (i.e., become authors of environmental literature). The student said that in the barren part of the continent where he lived, the concept of sitting outside and observing the land’s natural beauty was pretty much unheard of. However, this class assignment made him realize that the natural environment was something that *should* be preserved, for its own sake. His Sustainability Action

Project (in his case, reducing transportation fuel consumption) was a real eye-opener, and not only saved him money, but made him a safer driver. He was eagerly sharing the results with his family and friends.

In order to represent this project, what follows is description, regarding changes to the course as it was taught Spring 2014, of 1) the final class project; 2) course learning outcomes; and 3) course lectures. This material is followed by a description of specific student projects, student comments regarding their projects, my personal evaluation of the effectiveness of the plan, and a description of the resulting changes made to the course for Quality Matters certification.

Sustainability Action Project

Previously, the final project for Literary Topics: Environmental Literature was for students to visit a piece of land that they had already twice visited and described, and, following the reading of Al Gore's *An Inconvenient Truth*, not only observe their place, but comment on expected future changes, implicitly related to climate change. Students were also asked to comment on what they could "personally do to minimize any negative impacts for this place, and others like it." Just that. Students were not asked to do anything, but just to speculate about what they *might* do, without any specific direction. The focus was on a description of the land, with a bit of a "coda" regarding the environment. The revised project totally shifted the focus, onto individual action to mitigate climate change. By mid-term in the class, the students each needed to select a project, and report it to the entire class in a discussion posting.

Note: Most of the students were BAS Adult Degree Program students, with a few traditional students; just one had a major or minor in a science area. Were this a science class, there would need to be explanation and rigor regarding measurement and analysis of data. However, this was an English literature class. The goal was to teach students some introductory information about sustainability, and to empower them to make real, measurable changes. Most students relied on changes to their Wisconsin Public Service bill for data, and they employed common-sense actions. But the point is, they actually *did* something which, as will be shown, had positive results both for the environment and the students' sense of personal empowerment, causing them to continue to seek out such opportunities.

Although, with approval, students could devise a project on an individual topic, **the suggested projects were the following, as described in the course:**

1. PERSONAL HOME ENERGY: MONITOR the amount of energy that YOU PERSONALLY use in your home. This means electricity, gas, whatever. Of course, unless you live alone, you will have to guess regarding your consumption. This applies ONLY to your own living space.

Do the monitoring process for 7 consecutive days, of your choice. Then, figure out a way to REDUCE your consumption by at least 10 percent. Again, monitor the consumption.

2. PERSONAL TRANSPORTATION ENERGY: MONITOR the amount of energy that YOU PERSONALLY use. If, for example, you drive a car, but there are 4 people in it—you need only include 25% of the energy. This will probably be in gallons of gas.

Do the monitoring process for 7 consecutive days, of your choice. Then, figure out a way to REDUCE your consumption by at least 10 percent. Again, monitor the consumption.

3. PERSONAL HOME WATER: MONITOR the amount of water that YOU PERSONALLY use in your home. Of course, unless you live alone, you will have to guess regarding your consumption. This applies ONLY to your own living space.

Do the monitoring process for 7 consecutive days, of your choice. Then, figure out a way to REDUCE your consumption by at least 10 percent. Again, monitor the consumption.

4. Carry the landfill wherever you go. Just that. Get a large bag, backpack, etc. Put into that EVERYTHING that would go into a land fill for one week. Yikes!! For sanitation purposes, this does not include human products (i.e., toilet paper, diapers, etc.). It also, for the same reason, does not include food scraps. NOR does it include anything that **you put in** recycling. It DOES, however, include anything that would otherwise end up in the trash.

5. Educate women and/or work for their total equality. As Ehrlich explains, the education of women can go a long way in saving our planet. Devise a plan to promote women's education. Volunteer at a literacy education facility. Work with at-risk girls at a local school. Helping your daughter with her homework does not count. But it DOES count to help a neighbor girl, or even a niece, with school work. In order to not promote age bias, there is no limit on the age of the woman you help—up, or down. But the point is EDUCATION—not physical mobility. For your project, spend at least FIVE HOURS in a specific activity.

6. Identify someone running for political office—local, state, or regional—who is a climate change denier, running against a candidate who promotes sustainability. Spend at least 5 hours working for the sustainability candidate.

Then, at the end of the course, students were asked to do the following: Final Paper (five double-spaced pages).

For your unit 7, final paper, write a five-page double-spaced paper, in which you answer these questions, either in a report format (questions and answers), or in a more unified paper.

In the introduction and/or conclusion, a) comment, with specific quotations from their texts, on environmental activism from the perspective of two of our authors studied; and b) comment on the impact of climate change to your specific "spot"-- i.e, how will your Sustainability Action Project directly, or indirectly, help preserve it.

Questions to be answered in the final paper

- A. What did you do? Describe your project IN CONCRETE DETAIL.
- B. What were the results? If is not enough to say “I reduced energy consumption by 10%.” You need to specify what the base energy consumption was—for various categories—and specifically what you did to reduce the energy, with specific results.
- C. Personally, how did the project work for you? Was it a total nuisance? Do you feel that some good came out of it?
- D. How, if at all, will this project alter your behavior in the future?
- E. Did the project have any impact on your family and/or friends? How so?

Learning Outcomes

Prior to the Environmental Sustainability Project, Literary Topics: Environmental Literature had one learning outcome targeting sustainability (although the study of environmental literature might rightly be considered to be such a study, throughout), as follows:

Increase awareness of current environmental challenges, as depicted in writing.

As part of the course revision, an entire category of learning outcomes was added: “Improve Sustainability.” The specific outcomes are

Increase awareness of current environmental challenges

Develop and implement a personal action plan for helping fight climate change

Lectures

Whereas in the unrevised course, the information regarding the learning outcome “increase awareness of current environmental challenges as depicted in writing” was delivered primarily through *An Inconvenient Truth* (with pointed discussion questions), the revised course, with its Sustainability Action Project, called for more. Accordingly, in the middle of the course, I added two articles pertaining to biologists Paul and Anne Ehrlich, as well as a 29-minute video by Paul Ehrlich on sustainability. Although this was not the way I’ve ultimately designed the course, it proved to be an instructive starting point for considering sustainability.

Student Projects

Twenty students completed final projects. Half monitored and reduced their home energy consumption, two of these in conjunction with monitoring and reducing water consumption. Three reduced just water consumption, and five did “other” projects (one each for carrying the landfill, composting, eating a raw vegan diet, planting milkweed to encourage butterflies and hence pollination, and educating girls regarding sustainability). Every student reported success. Although most reported reducing consumption of home energy, water (both as reflected in utility bills and measurements), or transportation fuel by at least ten percent, some were not able to reach this goal. However, they reported a high level of learning, and were eager to spread the news – particularly of financial savings—to their friends and families. The students who did the “other” projects also reported a high level of success.

Student Comments (the “artifact” required for the report)

Student comments, pulled from the papers, are the most instructive in terms of the success of the project. These are direct quotations. A sample is below:

The project did help highlight just how much electricity we go through, and how much could be potentially saved.

In the long term, this assessment has helped me decide which systems in the house should be replaced with more high efficiency systems.

Now we use our recycling bin more often and as a family, make about two bags of garbage a week. The biggest change my family made was they stopped using paper plates and buying soda bottles.

I have started a good habit of reducing fuel consumption and saving our environment by not using my car all the time. I carpool, I use the bus, and I will ride my bike in warmer temperatures. I will continue to do this and convince others of the importance of reduce fuel burning and saving money.

I must admit I was not initially enthusiastic about this project. However once I started researching water consumption I became committed. In fact, I have shared my results with my friends and family and it is just as eye opening for them. Most of them have no idea how much water they use in a week. I hope ... they will be inspired to participate in some of the same water-saving measures as well. Not only is water conservation environmentally responsible, but it also helps save money. I have recommended that the money saved on reduced water bills go towards the purchase of new high efficiency appliances. This whole project has changed my perspective about the difference one person can make and it has inspired me to be someone who can make a difference.

[Regarding composting] I felt bad for forcing the experiment on my roommates, but they were just as surprised by how much trash we saved.

Overall, this project opened my eyes on how much money I can save by doing the little things. When I first saw what the project was, I did think it would be a nuisance and be something that I would not enjoy at all. . . . This project not only saved me money in my electric bill, but it made me more aware of turning off lights when not needed and trying to not watch as much television. Not only did it help my wallet, it helped my lifestyle as well. Today I am still limiting watching television and not listening to the radio when I go to sleep.

[Regarding reducing home electricity] Doing a project like this was something that I have never done before and something that I will tell my family and friends about because of how successful it was. Saving energy is something that I used to think was over rated and unnecessary because I never paid my own bills. Whenever my parents told me to shut the light off, I never understood why they were so concerned about it, until now.

[Regarding educating girls] Personally this project was very fun. It allowed me to educate the four young girls and help them make Christmas gifts for their families. It gave me a sense of pride and accomplishment being able to share with them how reducing, reusing and recycling can be fun. This project altered my behavior by making me more cognizant of my global footprint.

[Regarding home energy consumption reduction with a family with two small daughters] We are now a full two weeks into this little experiment, and I can honestly say that there have been some dramatic changes in our family energy consumption behaviors . . . My oldest daughter asks every single day, “When is the WPS bill coming?” . . . It hasn’t been the easiest of tasks, but I can say, without a shadow of a doubt, that each member of my family has a deeper, greater, awareness of energy consumption than they did two weeks ago. I came home from work today, to a dark house. The Christmas tree was brightly lit, but there were no extra lights on. The kids were quietly playing on the floor and I was reminded of why we are doing this. We are doing this for them. It’s not just about all the money we hope to save. It’s about saving this beautiful world so that one day, they may have the pleasure of trekking through 10 inches of snow to go see their special spot. With any luck, it will still be there to enjoy.

[Regarding energy consumption reduction] Some of the ways we tried to conserve energy were lifestyle changes for us. We are a family of TV watchers. As I mentioned earlier, the TV is often white noise in the background when we are busy doing other things. So it took an effort to actually notice when it was on without anyone watching it. Then took some more effort to turn it off. I would say that it was an interruption to what we call our normal lives. . . . Things become such a habit that it takes a project like this to change the way you think about something.

[Regarding home energy reduction] At first, I have to say it was kind of a nuisance The first week there was a lot of yelling at the kids to get out of the shower, turn of lights shut off the TV, etc. They caught on eventually though. Now they do these things without me having to yell at them. A lot of good came out of this project. We learned ways to save energy, keep our house warm, and it really was not that hard to do. It was well worth our time and effort. My kids are

more aware of their surroundings when it comes to saving energy. They remind me when I forget to unplug something or forget to turn off the lights. They get a kick out of telling me what to do.

[Regarding home energy use] Another relevant issue is simply being aware. I would never have considered myself an energy abuser, but once I began documenting and truly addressing how much I consumed, reality hit. Twenty minute showers, extra 40 mile trips due to poor planning, washing dishes with running water, it's all so wasteful and there are many ways to reduce the excess intake.

My boss was of course happy to consider ways to reduce usage, because it ultimately reduces cost. I work at a winery, and we have three large buildings that constantly draw power and have to be heated all winter long. This is incredibly costly, so we spent time addressing better means of insulation, ultimately reducing the heating demand. We also decided to shut all the computers down at night, make sure all lights were turned off (regularly neglected) and consider car pooling whenever possible.

Evaluation of Project's Success

I could not have been more pleased with the project. I would call it an overwhelming success if merely in terms of students' awareness of sustainability and their personal ability to actually do something for the environment. These are reflected in the student comments. In particular, I was pleased that the students not only wanted to continue with their projects—yes, in no small part due to financial savings—but also shared their success with family and friends. Many seemed to “win over” both themselves and family and friends, beginning with initial reluctance.

I was not, however, as pleased with how well the project “fit” with the rest of the course. It seemed a bit disjunctive to put such a project into what was essentially a literature class. I had added the project quickly, right before the beginning of the semester, and did not have much time to integrate the project into the class—at least this semester.

Revision for Quality Matters Certification

Coincidentally, when I received the invitation to participate in the Environmental Sustainability Project I had already begun the process of certifying ENG 364: Literary Topics: Environmental Literature for Quality Matters certification (a nation-wide program for certification of on-line courses). I had taken the summer class, and had begun revisions to the class, primarily in terms of clarifying learning outcomes. The Environmental Sustainability Project caused me to add an entirely new area of course learning outcomes, “Improve Sustainability.” Truly, however, I had considered not including the Sustainability Action Project

in the Quality Matters version of the course (the version that will be used in the future, beginning Summer 2015), and was going to replace it with a paper describing what *might* be done, instead of having students *actually* do something. And then I read the student projects. I realized I needed to change the course to fit the project, not the project to fit the course. As of today, February 9, 2015, the course is in the middle of the official certification process, with high praise from outside reviewers during the initial evaluation. What follows is a summary of the changes made from the class, Fall, 2014, to the Quality Matters version. The changes were made to ensure that sustainability is an integral part of the course from the beginning.

- 1) Course Learning Outcomes: Whereas the Fall 2014 course stipulated that students would “increase awareness of current environmental challenges” the QM version stipulated that students would “*demonstrate basic understanding of sustainability* and some of the challenges to achieving sustainability.” The learning outcome “develop and implement a personal action plan for helping fight climate change” remained as is.
- 2) Lectures: The Fall 2014 course included two articles and a short video all in relation to Paul Ehrlich, but not until Unit 3 (of 7 units, so nearly mid-term). In the QM course, Unit 1 is renamed “Introduction to Sustainability, and Leopold and Muir,” and includes a general video about sustainability (“Sustainability Easily Explained” by Explanity), and the “Sustainable Development Timeline” (by the International Institute for Sustainable Development), into which I inserted the course texts—i.e. chronologically situated them in terms of what was happening world-wide for sustainability, including, for example, the creation of the Environmental Defense Fund in 1967, the first Earth Day in 1970, etc. Also, each unit includes reference to each author in terms of sustainability.
- 3) Final project: The final project remained essentially the same, based on its resounding success. However, whereas the Fall 2014 course stipulated that in either the introduction or conclusion of the paper students needed to “comment on environmental activism from the perspective of two of our authors studied” the QM course requires that, as an introduction to the paper, students detail “which two authors studied this semester had the perspective on sustainability that you found most enlightening” with specific quotations from their texts.

Conclusion

Overall, I cannot thank the Environmental Sustainability committee enough for including me in this project. Frankly, when I agreed to participate I had no idea how much work this would be, particularly since it became interwoven with my course revision for Quality Matters. However, I also had no idea how gratifying the project would be. Whereas

the kinds of projects students completed might seem “mundane” to science majors, this is not the case with most of the students in my class. Truly, this project makes me feel as though I have made a difference and, I believe, is one of the very most significant activities of my teaching career.