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How to Get Hampshire College Students to Reduce Their Energy Consumption by  
Educating About the Environmental Consequences of Energy Use

## **Abstract**

Students at Hampshire College generally do not try very hard to reduce their energy consumption. This I believe is due to a lack of understanding of the impact energy use has on the environment. Thus the best way to solve the problem of excessive energy use is through education about the effects of energy use on the environment. How can Hampshire effectively educate about this. To answer this question I did research on different ways environmental education can be done and conducted conversations with ten Hampshire students on how they thought they could be most effectively educated to reduce their energy consumption. In my research I looked at two predominate ways to educate about the environment. The first way is expressed in the work of David Orr who suggests that the education system needs to be completely restructured so all education is essentially environment education. The second way to educate about the environment is through student initiatives. These initiatives can vary widely depending on the institution. In response to the student conversations most students thought having any additional academic requirements would not work due to the independent academic nature of Hampshire College. However, in one conversation the possibility of incorporating an environmental education requirement with existing requirements was discussed and the student agreed that this might work. Overall students thought strengthened student groups would be most effective. Based on these results I made several recommendations to Hampshire College. My recommendations include. First, incorporating an academic requirement as part of the natural science requirement or independent of any class that has students do a project on how they impact the environment. Second, strengthening support for student groups. Third, to have environmental education incorporated into the new student orientation program.

## **Introduction**

Generally speaking students at Hampshire College do not try very hard to conserve energy. Students frequently leave lights on while they are out for the day, leave the refrigerator door open for long periods of time and turn the heat up to its highest setting and open the window. This of course is a generalization about Hampshire students, there are many students who are very aware of their levels of energy consumption. There have also been some small student led efforts to reduce campus energy consumption but they

have not been effective on the student body as a whole. The individuals who excessively consume energy (use more energy than necessary to fill their needs) at Hampshire generally do care about the environment they are just unaware of how their excessive energy consumption affects the environment. This kind of behavior is not unique to the Hampshire College it is also true on other college and university campuses all over the world and of people in general who lack the kind of consciousness it takes to conserve energy where there is no real incentive, such as cost, to keep them from consuming (Making Better Energy Choices, 2008).

I believe colleges and universities have one of the biggest potentials to effect change in society because higher education institutions are often where new ideas are created and where people develop habits and beliefs that shape how they live their lives. Thus colleges and universities should be leading the movement to a more sustainable world by making their campuses a model of sustainability. As a higher education institution that considers itself on the cutting edge Hampshire College should be at the forefront of the change to a more sustainable society. Reducing student energy consumption at Hampshire College is only one step on the way to a more sustainable campus and a more sustainable world, but it is a big step.

I believe the most effective way to reduce student energy consumption at Hampshire College is through educating about how individual actions like energy consumption impact the environment. If students care about the environment and are aware of the impacts their energy use has on the environment I believe that they will be more inclined to reduce their energy consumption. Many students at Hampshire, through they have a basic understanding of environmental issues, don't understand how their lives create and

enlarge environmental issues. How can Hampshire College effectively educate students to become aware of how their actions impact the environment so they reduce their energy consumption?

### **Methodology**

To answer the question of how to educate about individual impacts on the environment to reduce energy consumption at Hampshire College, I did some general research as well as conducting conversation with 10 Hampshire College students.

### **General Research**

In my research I looked at two different ways to educate about the environment. Environmental education through restructuring the curriculum and environmental education through extracurricular student led efforts. For environmental education that involves restructuring the curriculum I looked at the work of David Orr who proposes to restructure education curriculums to essentially make all education environmental education. In addition I looked at how Oakland Community College restructured their curriculum with the goal of creating more environmentally conscious graduates. For education about the environment through student led efforts, I looked at how these efforts can vary widely from institution to institution and what made these kinds of efforts successful.

## Student Conversations

Next I looked at what would work on the Hampshire College campus as far as educating students about how they impact the environment. To do this I conducted brief conversations with ten randomly selected, anonymous Hampshire students. I asked them if they were concerned about the environment, if they thought excessive energy consumption (using more energy than necessary to fill their needs) on the Hampshire College campus was a problem, if they thought they personally should/could reduce their energy consumption for background. Then I asked them how they thought they could be most effectively educated to reduce their energy consumption.

## Results

### General Research

David Orr in his book *Earth in Mind* talks about the education system in the United States and how people are educated “to be more effective vandals of the earth” to become part of corporate America which success depends on the exploitation of resources. And that is why we have many environmental issues (Orr, 2004).

The solution to the problem of environmental destruction resulting from issues like exploitation of resources and excessive energy consumption Orr believes is a complete restructuring of the educational system. The restructuring he suggests is to make it so all education is environmental education, so students are taught how all disciplines are connected to the environment and how to live sustainably in the environment. Orr

presents six principals for rethinking education. These principals are written for all levels of educational institutions. First, all education should be environmental education. Students should be taught that they are a part of the natural world and that all disciplines are interconnected and connect to the natural world. For example economics must be taught with reference to the laws of thermodynamics and ecology. Second, students must be aware that the goal of education is not mastery of subject matter but rather mastery of ones person. Third, knowledge should carry with it the responsibility to use it well in the world and use it in a way that is not harmful to the environment. At present greater knowledge often leads people to be “more effective vandals of the earth.” Forth, we cannot say we know something without understanding the effects of the knowledge on humans and on the earth. Fifth, schools must provide a good example. Schools as institutions must operate and invest in a sustainable environmentally friendly way. Lastly, the way students are taught effects what students learn. For example courses taught in lecture style tend to create an atmosphere of passivity, where courses taught outside the classroom tend to create engagement (Orr, 2004).

At Oakland Community College, one of the largest community colleges in the United States located in Detroit, global environmental awareness, social responsibility and interpersonal skills are required components of all degrees. The environmental awareness component of this requirement was created by one professor who believed that it was important for students to have a basic understanding of environmental issues when they graduate from college. This professor knew that students would generally not opt to take courses in the environmental field unless they were majoring in that field. So he thought it should be a requirement for all students (Rowe, 2004). However, there is no

available information on how this graduation requirement effected the way the students chose to live their lives. There is also no evidence that this requirement is still in effect since the information above was from 2004 and there is nothing to be found on the Oakland Community College website about it currently.

Another way to educate students about the environment and their impacts on the environment is through extracurricular efforts led by students. These kinds of efforts can vary greatly in their priorities and methods depending on the schools specific needs and culture. These efforts have at some colleges and universities taken the form of environmental awareness raising campaigns through lectures and posturing, student newsletters or newspapers and many more. Some things that students groups that implemented these kinds of efforts found to be generally key to success included. First, personal relationships opposed to more impersonal e-mails, newsletters and announcements. This is because personal contact is more effective in uniting people and helping them to achieve a common goal. Second, success is not necessarily related to numbers of people involved, but rather to extremely active and motivated individuals. Third, support from above is critical. Without support of the school administration it makes students efforts much less effective. Forth, spontaneity, meaning taking advantage of opportunity, is a key in successful efforts of any kind. And lastly persistence leads to a better long-term outcome despite short-term setbacks (Barlett and Chase, 2004).

### Student Conversations

In response to the questions asked in the student conversations. All ten students said that they did care about the environment. Three said it was their top concern, six said it

was close to the top and one said it was not top because they just did not think about it that much because it had nothing to do with what they were studying. As a side note, my impression has always been Hampshire students are generally very concerned about the environment, this is because of various conversations I have had with students through the years in class and outside of class. Half the students thought excessive energy consumption was a problem at Hampshire and the other half were not sure either way. All students with the exception of one thought that they were probably using more energy than necessary and could reduce their energy consumption but did not know to what extent. One student already considered themselves to be extremely conscious about not excessively using energy. In reply to how to most effectively educate the student body about the environmental effects of excessive energy consumption, all students thought that including environmental education into the curriculum through additional academic requirements was not a good idea given the independent nature of Hampshire's academic program. However, the idea of incorporating such a requirement in with existing academic requirements such as the natural science course requirement for first years was discussed with one student and they thought this could potentially be effective. Overall the students thought that student led efforts would be a more effective method. They thought if the student led sustainability group that already exists could lead efforts or more environmental student groups could be created. All also thought more administrative support for such student groups would be needed. However, none of the students had any ideas on how the students groups could be more effective in educating students to reduce their energy consumption.

## Discussion

In my research I looked at two possible ways to educate about the environment in a college or university, through changing the curriculum or through student led extracurricular efforts. This is not to say that there are not other ways that would fall under neither of these categories.

For restructuring the curriculum Orr presents an extreme idea that in my opinion is not immediately feasible at most college and universities at least not to the extent he proposes. However, Oakland Community College restructured part of their curriculum to include an environmental education requirement. What they did is not to the extreme that Orr suggests since it is only adding an environmental education requirement instead of making all education environmental education. However, it does show it is possible to change a college curriculum to include environmental education. This means that it may be possible for Hampshire College to change some aspect of the curriculum to include some form of environmental education if it does not infringe too much on the independent academic nature of Hampshire College.

The research on student lead efforts shows that such initiatives do not have to be implemented by faculty in the classroom setting but rather can be implemented by students outside the classroom. This research shows that student led efforts can vary widely from institution to institution. The research also gives some useful information on what makes these efforts successful, such as personal relationships, persistence and support from above. This information may be useful for Hampshire College student groups who wish to be stronger and more effective in educating students about the

environment and for the college administration so they know that student groups need their support in order to be strong and effective.

Before we discuss the results of the student interviews I will provide some brief background information on what the Hampshire College academic program is like. At Hampshire College there are no major and minors. Instead students design their own course of study with the help of their academic advisor. There are no required classes with the exception that in your first year you are required to take a class of your choice in each of the five academic departments, social science, natural science, cognitive science, humanities arts and cultural studies and interdisciplinary arts. Then in your second or third year you must fill a multi cultural perspective requirement and a community service requirement. Other than this the academic program is completely self-designed.

This academic independence is the essence of Hampshire, so I believe, and the students I talked to agreed, that it would not be a good idea to try and include academic requirements to the extent Orr suggests or even to the extent that Oakland Community College did. This is because it would jeopardize the independent academic character of Hampshire as well as not being immediately possible or practical. However, as discussed with one student, there might be a way to incorporate environmental education in with existing requirements. For instance it is already required that first years take a natural science course which most often is environmentally focused with a few exceptions of courses like cultural biology, calculus in context and human gene therapy. This requirement could take on several forms. It could be part of a class or an independent first year requirement. Whichever it is it needs to show students how they are individually impacting the environment.

From the student interviews it is clear that student groups need to be strengthened. There needs to be more administrative support both financially and organizationally which is key to the success of a student group, as mentioned in the research above. I am however, not entirely sure how this could happen. But clearly the administration needs to hear from the students that they need their help.

If Hampshire was a less academically independent school and was more conventional, students would probably be more likely to be more interested in, or at least not against, incorporating environmental education into the curriculum in the form of additional academic requirements. Students at Oakland Community College, which is academically a more traditional institution, most likely did not have a problem with the implementation of the environmental education requirement, given that in Rowe's description of the implementation process of the requirement there was no student opposition mentioned (2004). However, there are no accessible clear studies that I came across that have really explored what kinds of environmental education work best at different colleges and universities.

At Hampshire College combination of methods to educate students may be the most effective. Since it is not desirable to change the academic curriculum too much because of Hampshire independent nature and because environmental student groups are not particularly strong at Hampshire at present which is not to say they will not become stronger.

### **Recommendations and Conclusion**

In conclusion I will make several recommendations to Hampshire College based on my general research and the student conversations on how Hampshire could better educate students to reduce energy consumption and better support students groups to educate about the environmental effects of energy consumption.

Firstly, I would recommend that Hampshire College strengthens the Natural Science requirement. This would mean that in addition to the general information on various aspects of the environment studied through science the classes would put a significant emphasis on how individual actions like energy use effect the environment. In addition to this each student should be required to complete a project on how something they do effects the environment such as energy consumption, water use or driving a car. If this was not possible to incorporate into the natural science requirement it could be a first year requirement independent of any class. Though this would be an additional academic requirement and the students I talked to thought that this should be avoided I think that it is a relatively small requirement had would not change the independent academic nature of Hampshire College.

Secondly, environmental oriented student groups need to become stronger and perhaps be more numerous since there is only one active right now. Most importantly student groups need administrative and faculty support. I believe it would particularly enhance the effect of student groups if faculty were more apart of them in terms of giving advice and support. Most of the Hampshire faculty are very knowledgeable especially faculty dealing with environmental studies and natural science and would have a wealth of advice to offer students in terms of ideas of how to effectively help educate the

community about environmental issues. In order for student groups to have faculty and administrative support they need to ask for it.

Third, and last I think it would help to include some form of environmental education in the new student orientation program. This would teach new students about their impact on the environment and give them the message that Hampshire College as a community is concerned about the environment.

The hope with all this is that through these different forms of educating about the environment students will learn about how they impact on the environment particularly in relation to things like energy consumption. As a result of this knowledge it is hoped that Hampshire College students would reduce their energy consumption. Of course this idea may not work for some students or may not be effective at all. But we will never know unless it is tried. I propose that Hampshire experiment with implementing these recommendations over a five or six year time period and see if it makes a difference. If it does not clearly another method needs to be used to reduce energy consumption, perhaps regulation.

## Works Cited

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Students for the conversations were randomly selected and anonymous. The conversations were conducted on various occasions between April 2<sup>nd</sup> and April 27<sup>th</sup> 2009.