“Why Would I Want to Attend That?”
Motivating Students to Attend ES&P Lectures

ES&P 311
Kelsea Thornton
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Abstract

What will improve attendance at Environmental Science and Policy (ES&P) lectures? What is it that motivates some students to attend while others don’t care? After polling students and professors about their behaviors regarding ES&P lectures, it is clear that if professors recommend attending lectures to their students, more will attend, even if the topic is not related to class. Recommendations for the steering committee of the ES&P program, are to discuss the benefit from attending and to encourage attendance within their class. ES&P is such a broad program that students of all majors can benefit from attending ES&P lectures. The environmental issues that this world faces are large and it will take collaboration from all different kinds of people (and all majors) to rework current practices.

Introduction

I have been interested in environmental science since taking an aquatic ecology class in high school, so when I came to Smith College I took advantage of lectures on these topics. No matter what department sponsored a lecture, whether they were offered by landscape studies, physics, or government, I was there if my class schedule permitted. When the ES&P program was formed and lectures sponsored by them were offered I was pleasantly surprised by the variety of talks, but very unimpressed with the number of students that attended. With two specific talks in mind (Glenn Pricket and Barry Sanders) cosponsored by the ES&P department this past year, there is reason to attract more students to ES&P lectures on and off campus. Members from the local community, interested college staff, and many professors were present at these two sited lectures, but the one thing these two lectures lacked was students.
How can we as students miss out on such opportunities? Smith is our oyster, and we can grow very smart from all the opportunities that are set up for us here. Our schedules are busy but as life goes on are just going to get busier, and now is the time to learn what interests us. There is value in learning about a topic one never knew about or disagrees with. It is pretty ideal that the ES&P program is diverse and demands collaboration between departments, because then students get a taste of lots of things and can learn what they connect with best.

Part of what attracted me to the sciences was the sense of community and the collaboration that took place. Research shows that motivation can be stemmed from collaboration. Learning communities are especially important in the science, technology, engineering, and math (STEM) programs. The ES&P program here recognizes that too, the programs website displays this quote “Our hope is that students who pursue this major will graduate ready to fill positions in governmental and non-governmental organizations, education, and businesses and will be able to provide critically needed environmental perspectives in their careers and to their communities.” This quote demonstrates the broad spectrum ES&P covers, and how collaboration is critical to understanding environmental science. With the world in the state it is today this quote echoes the importance for students of all majors to be involved in some manor with ES&P studies. The lecture series offered by the program covers a vast topic array, and I would be shocked if every student could not find at least four lectures throughout a year that interested them. There were 154 events (on and off campus events combined) sponsored by the ES&P program this past year, and after talking with Joanne Bentley that number is lower than normal due to the post doctorate candidate interviews. The need for environmentally literate citizens and well-educated professionals able to address increasingly complex and global


environmental issues has never been greater. Pollution, ecosystem degradation, and unsustainable use of natural resources are just a few examples of how humans are altering the Earth, its atmosphere, and oceans in unprecedented ways (ES&P website, 2011).

With the vast array of lectures offered, and the need apparent, what can be done about students attending? For my research project, students and the ES&P steering committee were surveyed on their thoughts on attending lectures hosted by the program. My goal is to make a recommendation to the steering committee, based off data collected here at Smith and research on motivation and collaboration, which will hopefully change current practices and incite more attendance to ES&P lectures. If students attend more ES&P sponsored events, by the time they graduate Smith they will more knowledgeable on environmental issues, and will be able to act accordingly in the career they choose.

**Methodology**

**Students Survey**

A simple survey on interests and behavior was filled out by 30 students from Parsons Complex. Parsons Complex is a diverse house, typical of Smith College. Only two of the students surveyed are ES&P majors. Students from 24 different majors (including undecided) were surveyed. One of the questions asked was “if one of your professors told you about an event, would you be more apt to attend”. The seven question survey was passed out during a house meeting and kept anonymous by having the students drop them off to a box outside my room. As an
incentive there were chocolates left in the same box the surveys were to be returned to, and students were allowed to help themselves if they participated.

**Faculty Survey**

All members of the ES&P steering committee were called, and 13 out of the 17 members were willing and able to answer eight questions asked of them. The survey took the majority of faculty five to six minutes to completely answer. One faculty member gave me longer responses for fifteen minutes. The four members that were not surveyed were not near their phones the three times I tried to call. The questions asked the steering committee about their practices as faculty and what benefits they saw if students attended ES&P events regularly. Two of the questions were “Do you recommend to your students attending ES&P lectures, and why” and “Do you see any learning benefit from having your students attend lectures you recommend”.

Questions from both surveys are included in the appendix.

**Results**

**Student Survey**

After polling thirty students from Parson Complex it is clear that the students are interested in ES&P as a curiosity not a major. Figure 1 (see appendix) shows high interest as the result of asking students to rank their interest from a 1-5 (five being the most interested). Only 6% of students polled ranked their interest in ES&P as a 1, and over 50% of students polled ranked their interest as a 4 or a 5.
Figure 1: Shows the result of polling 30 students with diverse majors from Parsons Complex, of their interest in ES&P. With percent of students surveyed on the Y axis and ranked interest in ES&P on the X axis. The data was gathered from a survey question that asked them to rank their interest in ES&P (not as a major but as a curiosity) from a 1 to a 5, 5 being highly interested. 6% of students reported 1 as their interest, 17% reported 2 as their interest level, 23% said that their interest was a 3, 27% reported a 4 as their interest level and 27% reported their interest as a 5.
Figure 2: The stacked bar graph shows the events that the students polled attended in the last year. Demonstrated by color the Y axis displays the number of events attended, and the X axis displays interest in ES&P (from 1-5, 5 being highly interested). No events were attended by those who ranked ES&P as a 1. Of those who ranked their interest as a 2, 1 major/minor presentation had been attended, 0 had attended a lunchbag, 2 afternoon lectures had been attended, 1 evening lecture had been attended, 0 sponsored movies had been attended, 0
study away programs had been attended, and 0 other lectures had been attended. Of those who ranked their interest as a 3, 1 major/minor presentation had been attended, 4 lunchbag events had been attended, 1 afternoon lectures had been attended, 1 evening lecture had been attended, 2 sponsored movies had been attended, 0 study away programs had been attended, and 1 other lectures had been attended. Of those who ranked their interest as a 4, 1 major/minor presentation had been attended, 1 lunchbag events had been attended, 2 afternoon lectures had been attended, 4 evening lecture had been attended, 2 sponsored movies had been attended, 0 study away programs had been attended, and 1 other lectures had been attended. Of those who ranked their interest as a 5, 1 major/minor presentation had been attended, 5 lunchbag events had been attended, 16 afternoon lectures had been attended, 7 evening lecture had been attended, 1 sponsored movies had been attended, 2 study away programs had been attended, and 0 other lectures had been attended.
Figure 2 (see appendix) shows the number of ES&P events that the students polled attended (on the Y axis) this past academic year, based on interest in ES&P (1-5 on the X axis). Students who ranked their interest in ES&P as a 1 did not attend any events on campus, while students who ranked ES&P a 2 or more attended a variety of events. Lunchbag, afternoon and evening lectures where the most highly attended by students polled. Of the students who ranked their interest in ES&P as a 5, afternoon lectures were most commonly attended.

The third question on the student survey asked what attracts them to events on campus, 100% of students polled said food, well known speaker and/or extra credit. These three things would attract even those students who said their interest in ES&P was a 1.

The survey asked if one of their professors told them about an event if they would be more apt to attend and the results are that, 100% of students who ranked their interest in ES&P a 4 or 5 said they would be more apt to attend if a professor told them about it. Over 70% of the people who ranked their interest as a 3 said they would be more apt to attend if a professor told them about it, 100% would be more apt to attend if offered extra credit and if the professor who mentioned it was respected. 100% of students who ranked their interest in ES&P as a 1 or 2 said they would be more apt to attend if a professor told them about it and if the topic also interested them.

There were a few shocking results that came from surveying students. An unpredicted 35% of students polled mentioned that interactive talks are attractive. While 95% of students said that they are reached by either posters and word of mouth, the other 5% look to e-digest and/or ES&P list-serve. 73% of students mentioned food being a draw to an event.
Faculty Survey

After talking with 13 faculty members out of the 17 on the ES&P steering committee, it is clear that 100% recommend attending lectures to their students if relevant to their class. Email and verbal communication were the most common forms of communication. The reasons for recommending attendance to students varied from the lecture being department funded to the students own personal growth. If the ES&P lecture was relevant to the class the faculty member was teaching recommendation to attend would be made. One professor said that they would like to see Smith require students to attend ES&P lectures in order to obtain their BA, because the problem (global climate change) is not going away and all must be informed. Only three of the 13 faculty members interviewed said that they would assign work based off of a lecture. Extra credit was something the steering committee as evenly split on. A good point was that there could not be just one lecture for extra credit, there had to be enough opportunities for students to attend lectures to make it fair. The members of the steering committee that were surveyed all understand that students are busy, but see that the importance of attending so as to expand understanding. The faculty too is busy and cannot attend all of the lectures that they recommend, most of them try, but evening lectures are hard to attend. One member of the steering committee said that ES&P lectures are often are better for students to attend and that they would attend if interested in the subject and thought they might learn something new. If students attend ES&P lectures and are willing to discuss them in class, everyone in that class can benefit from that experience, the faculty surveyed said that this was a bonus for them. As a student myself it was interesting to hear that faculty do not care which students attend an event. In the faculties mind the student lost nothing by not attending (if the event was not
required), but yet there is value if students can discuss the lecture in class. Some faculty see the importance of working the lectures into class discussion more. The last question on the survey was left open ended, and simply asked if there was anything else the steering committee member wanted to say about the ES&P lectures offered and the power they had on students. Four of the twelve responses said something to the effect of, ES&P was such a broad topic that having fewer lectures might be a good idea, because students and faculty get drawn thin trying to attend all of the events.

Discussion

Discovering that the students polled would be 100% more apt to attend a lecture if their professor told them about it, extra credit was offered and the topic interested them shows the importance of professors announcing all ES&P events and offering extra credit for attending. However a big part of this project working falls on students and their motivations to attend events. Kimberley et al. (2008) found that the role of motivation and collaboration in STEM learning and performance is paramount. A learning community represents an educational approach that can engage students in learning in a motivated thoughtful, active, and collaborative way. I have taken an education course on teaching STEM courses here at Smith and after taking four years of STEM courses here at Smith, collaboration seems to be a critical factor in motivation. If people are working together to solve something the chance of success seems higher, and getting involved (motivated to participate) seems to be more likely. Tony Morrison (2010) writes that the underpinning ethos of the models described is that collaborative approaches to assessment can be therapeutic by engaging service users in the early stages of a
change process. ES&P lectures are opportunities for students to be informed on environmental issues and practices. The department is collaborative in nature, but if students can feel the collaboration and the “early stages of change” motivation to attend might ensue. There is a cyclic effect, and if faculty can start the student off who knows what effect might compound. The planet cannot afford to have educated people not understand environmental science and policy, because it is these people that will be making laws, teaching others and building the world we all live in.

Motivation is a very hard thing to quantify, and it is hard to say if the motivated students attend the ES&P lectures or if the ES&P lectures motivate students; either way, the goal of this project to increase the number of students at Smith who attend ES&P events. David Orr (1994) has two suggestions on how to design minds, one being to make over entire institutions so that their operations and resource flows (food, energy, water, materials, waste, and investments) become a laboratory for the study of ecological design. It seems as though Smith is trying to get to this place, Ford hall was designed to show students how it works, and students are encouraged to work with dining services (as members of this class have done). Orr also suggests establishing separate centers or institutes within the colleges and universities with the mission of fostering ecological design intelligence. Smith did this when they set up the Center for the Environment, Ecological Design and Sustainability (CEEDS), which is separate from the ES&P program.

J.R. McNeill (2000) ends his environmental history book stressing the importance of integrating history and ecology, and with the ES&P lecture series just this occurs. He says that with understanding of the past, comes a better understanding of the present situation and what can be done in the future. We might then consciously choose a world that would require only
irksome adaptations on our part and avoid traumatic ones, We could make our own luck instead of merely trusting to luck. That would distinguish us from rats and sharks- as well as those cyanobacteria of two billion years age (p 362). Smith is offering an ES&P education to its students that the future of the world cannot afford to miss out on, and if faculty can play a role in creating collaboration to motivate students it should be done.

**Recommendations**

This section needs to be provided to the ES&P Steering Committee.

Faculty in and outside of the ES&P program need to verbally communicate with students the lectures that are occurring on and off campus that concern the environment. At these events I recommend strongly stressing the collaboration between other departments, schools and community organizations so that a certain lecturer could be hosted. This is recommended because it might make the students more motivated due to seeing others efforts. In order to attract more students extra credit should be given to those that attend ES&P lectures. If each faculty member gives their students an assignment of attending at least 2 ES&P lectures (of their choice) per semester this recommendation could be met (and students could be getting extra credit in multiple classes if all professors stuck to this, which gives them more reason to attend. It is important to note that lunchbag, afternoon and evenings ES&P lectures might be most commonly attended because these lectures are more commonly offered, and with so many ES&P lecture offerings it was reported that students, and faculty felt drawn thin and this could/should be altered so that balance can be felt. Lunchbag, afternoon and evenings lectures should be focused on, so as to condense the offerings to manageable size. If every ES&P lecture
was noted with the level of background needed to understand it, students and faculty could
gage which lectures are best suited for them, and might be more apt to attend only certain
ones and not get as thinly drawn. Having good food will boost those that attend lectures back
up, and will certainly attract a few people that might not have attended.

Based on ideas posted on the student survey talks on, local ES&P issues, resent natural
disasters, new/alternative energies, and what is being done to mitigate ES&P problems are
recommended. Hosting policy makers and environmental committees also interests students
and is recommended.

Conclusion

*Smith College continues to shape and improve its environmental performance, gathering new data and
using technologies to reduce its use of energy and water, increase its purchasing of local food and
composting food waste, increase recycling on campus, decrease single-driver commuting and coordinate
sustainability policies with the purchasing office* (Green Smith Webpage, 2011). Actions taken by the
college administration can get the college recognized but it will take getting students involved and
creating a real sense of community will bring this initiative even farther. The ES&P steering committee
will hopefully strongly encourage,( if not offer extra credit to) their students to attend ES&P lectures. I
expect attending lectures will increase the sustainability efforts not only at Smith College but
throughout the world the as alumni enter the workforce. The college boasts that *at Smith, the world is
your campus: preparing you to live, work and lead across global borders* (About Smith webpage, 2011),
and hopefully when these recommendations are applied the school will have global environmental
leaders .
**Literature cited**


[http://www.science.smith.edu/departments/esp/courses.htm](http://www.science.smith.edu/departments/esp/courses.htm)


**Appreciation**

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Appendix

Survey Given to Parsons Complex

Major ________________ minor ______________________ Year of Graduation ___

On a 1-5 scale rank your interest (not as a major but curiosity) in Environmental Science + Policy (5 being highly interested)

1 2 3 4 5

Over the last year, how many times did you attend an environmentally related:

Major/ minor presentation______

Lunchbag______

Afternoon lecture______

Evening lecture______

Sponsored movie______

Study away program presentation____

Other____

What attracts you to events on campus? (examples, food, well know speaker, extra credit)

If one of your professors told you about an event, would you be more apt to attend?

How do you find out about ES+P events? Check all that apply

Posters

Word of mouth

e-digest

ES+P listserv
Professor

Other

What discourages you from going to talks? (not ES+P specific)

Are there topics, speakers, or anything else you would like from the ES+P department?

Survey Given to the ES&P Steering Committee

If you recommend going to lectures (any and all) to students, how do you communicate this with them? (by email, verbally in class, on the syllabus)

Do you recommend going to ES&P lectures, and why?

Why would you recommend attending a lecture to a student? (well known speaker, department funded speaker)

Do you offer any incentive for attending lectures (extra credit)

Do you attend most (if not all) the lectures you recommend?

Do you take note of which students from your class are attending lectures you recommend?

Do you see any learning benefit from having your students attend lectures?

Do you see any affect on students if they attend lectures regularly?

Is there anything else you want to say or can say about the power of having students attend ES&P lectures?