

# The Power of EcoTypes:

Survey, results, axes and themes as teaching and learning tools in introductory [undergraduate] environmental studies courses

EcoTypes: Environmental Ideas, Inclusion, and Engagement  
AESS 2018 June 20-23 Washington, DC

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# Abstract

Undergraduate students in introductory environmental studies courses typically enter the class conversation not having had (or taken) time to reflect on **their particular environmental attitudes, preconceptions about the environment, and positions on environmental issues**. In this presentation I will discuss how the EcoTypes survey can be a useful tool throughout the course/semester, helping students delve deeper into environmental issues via the EcoTypes vocabulary and their reflections pre- and post-survey.

The course I will be referring to is a 100-level course, **Environmental Issues in a Changing World**.

I first used the EcoTypes survey in the fall of 2017. **In this presentation I will:**

- 1) explain how I introduced the survey** to the class and discuss the assignments students completed as part of both the pre- and post-survey exercises;
- 2) describe how I used the survey**, individual results, and the survey axes and themes as touchstones throughout the course; and
- 3) reflect on how faculty** might further expand the survey as a teaching and learning tool.

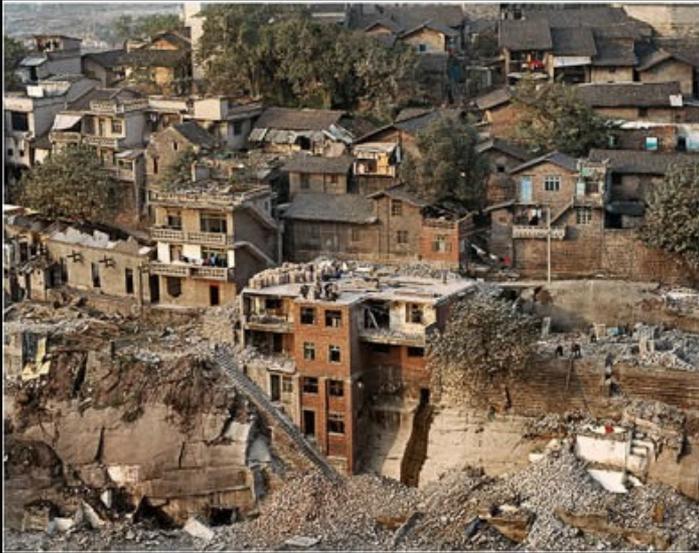
I believe this survey needs to be **more than a stand-alone (“one off”) course event**; as such, I am exploring how to mine the robust potential of the individual student results, and the axes and themes. Additionally (because an undergraduate student who was enrolled in the fall course is working with me on this research), I will talk about **how undergraduate students can become involved in the scholarship of teaching and learning**.

Undergraduate students in introductory environmental studies courses typically enter the class conversation not having had (or taken) time to reflect on **their particular environmental attitudes, preconceptions about the environment, and positions on environmental issues.**

### **Outline of the presentation:**

- I. The course
- II. Introducing the survey
- III. Using the survey in/throughout the course
- IV. Involving undergraduate students in research
- V. Reflection...

# **I. The course**



*Before the Flood* (2003).

Burtynsky set about photographing the construction of the Three Gorges Dam in China. That the dismantling of entire cities, displacement of nearly two million people, and destruction of historical sites was deemed an acceptable cost in the face of "progress" is a startling statement on our relationship to our world.

<http://www.edwardburtynsky.com/>

# CRP 181\_001: Introduction to Environmental Problems

Spring 2018 | 3 credits

T + Th: 11 am – 12:15 pm

George Pearl Hall, Room P104

joni m palmer, Ph.D.

Community & Regional Planning

Geography & Environmental Studies

e: palmerjonim@unm.edu

Office: George Pearl Hall, Rm 249

Office hours: W 10-11am, Th 12:30-  
2:30 pm, and by appointment

1. Everything is connected to everything else.
2. Everything must go somewhere.
3. Nature knows best.
4. There is no such thing as a free lunch.

The Closing Circle. Barry Commoner

“When we try to pick out anything by itself, we find it hitched to everything else in the universe.” — John Muir

“We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.”  
— Aldo Leopold

# POINT 1: Philosophy behind the class

“I think you are proposing a solution without understanding the causes of the problem.”

David Shankman, Professor Emeritus, Department of Geography, University of Alabama



From a New York Times Article on 29 December 2016: “As China’s Largest Freshwater Lake Shrinks, Solution Faces Criticism”

[https://www.nytimes.com/2016/12/28/world/asia/china-lake-poyang-finless-porpoise.html?\\_r=1](https://www.nytimes.com/2016/12/28/world/asia/china-lake-poyang-finless-porpoise.html?_r=1)

# Introductory Class + Questions that guide this class

→ **What *is* an introductory class?**

1. What are the pressing environmental problems/issues we—as a global society—face today?
2. How might we better understand the complex human-environment interdependencies, determine causes and understand the consequences, and develop potential responses to the environmental changes occurring at the local, regional, national and global scales;
3. How might we (individually and collectively) effect socio-environmental change in the 21<sup>st</sup> century?

# SLOs: by the end of this class you should:

- ✓ have an understanding of some of the **environmental problems/issues facing the world today**, from the local to the global;
- ✓ be able ask not only the “**what**” questions, but the “**how,**” “**where,**” “**when**” and “**why**” questions through written work, class discussion, and oral presentation;
- ✓ that is, you should be able to express reasoned opinions and engage in critical debate that is necessary to being **an environmental citizen in the 21<sup>st</sup> century**;
- ✓ be able to explain (or at least further explore in a critical manner) the **social dimensions and interdisciplinary challenges associated with pressing environmental issues**; and
- ✓ understand the **ethical dimensions of human-environment decision making**.

# CURRENT NEWS



# Montecito, Enclave of Wealth and Fame, Unimagined Tragedy

[https://www.nvtimes.com/2018/01/14/us/california-mudslides-montecito.html?\\_r=0](https://www.nvtimes.com/2018/01/14/us/california-mudslides-montecito.html?_r=0)



On the facades of the big homes are orange markings. An X denotes the house was checked and cleared by rescuers. A V indicates a victim was pulled, alive, from the wreckage. A V with a slash through it indicates a dead body was found.



Unimaginable tragedy struck this small, exclusive enclave, nestled between the mountains and the ocean and home to many celebrities, last week when a torrential downpour — a “once in 200 years” storm, officials are quick to say — set off deadly mudslides in a landscape that, just last month, was scorched from the state’s largest wildfire on record.

## **II. Introducing the survey...** to the class and discuss the assignments students completed as part of both the pre- and post-survey exercises

- ✓ Surveys?
  - ✓ what, why, how, who
- ✓ Vocabulary
  - ✓ Starting the conversation
  - ✓ Binaries and spectrums
- ✓ Spatial and temporal thinking / practices
  - ✓ local – global
  - ✓ short, middle, long – term
- ✓ Differences and similarities
  - ✓ within the class
  - ✓ across the country (i.e., other universities)
  - ✓ regional, generational, etc.

# ECOTYPES: EXPLORING ENVIRONMENTAL IDEAS

ABOUT SURVEY AXES THEMES FOR STUDENTS FOR INSTRUCTORS

## Assignment #1: Take the EcoTypes Survey

### What Are Your EcoTypes?

Take our survey and browse resources on this site to find out!

MORE INFO

<https://ds.lclark.edu/ecotypes/>

## Eco-Types Survey

For Assignment #1: Click this link to take the survey, and please take the survey : [EcoTypes site](https://ds.lclark.edu/ecotypes/) | <https://ds.lclark.edu/ecotypes/>

- ✓ To help you grasp the axes, *The Eco-Types staff have prepared two sample applications to [climate change](#) and [sustainability](#)*
- ✓ *And, they have developed a quick [tutorial on engagement](#), that should help you think about the more abstract themes.*
- ✓ You might want to check out this *short piece on the [cultural cognition](#) scale.*
- ✓ Finally, to help your navigate the site, *I recommend the [step by step guide](#).*

# Assignment 1

## ENVIRONMENTAL ISSUES IN A CHANGING WORLD

### CRP 181\_001: Introduction to Environmental Problems | Spring 2018 | Dr. palmer

University of New Mexico | SA + P | Community & Regional Planning

<http://saap.unm.edu/academic-programs/community-regional-planning/>

#### ASSIGNMENT 1: EcoTypes (2.5% of overall grade)

ASSIGNED: Th 18 January 2018

DUE: Th 25 January online by 10:59 am

#### Eco-Types Survey (6 Steps)

STEP 1. Take the EcoTypes Beginning-of-Semester Survey

Why am I asking you to take this survey?

You will take this survey at the beginning of the semester and again at the end of the semester. We will discuss the results as a group, on Thursday the 25<sup>th</sup> (in-class) and again at the end of the semester. This survey will help you begin to think about your values, perceptions, and knowledge of/about environmental issues.

Click this link to take the survey: [EcoTypes site](#) ...or use this link: <https://ds.lclark.edu/ecotypes/>

- To help you grasp the axes, *The Eco-Types staff have prepared two sample applications* to [climate change](#) and [sustainability](#), and
- A quick [tutorial on engagement](#), that should help you think about the more abstract themes.
- You might want to check out this *short piece on the [cultural cognition scale](#)*.
- Finally, to help you navigate the site, *I recommend the [step by step guide](#)*.

STEP 2. Make a list of 2-3 thoughtful questions you have about the survey (as a tool)

STEP 3: Make a list of 2-3 questions the survey prompted: Think about some of the things the survey got you thinking about.

STEP 4: Reflect: Once you've received your individual results, reflect on what you learned about your values, perceptions, and knowledge of/about environmental issues. Minimum of 150 words / maximum of 200 words (include the word count).

For example, you might think about the following:

- Do you believe the results accurately characterized you?
- Are you surprised by your results?
- What are some things these results got you thinking about, re: your environmental values and beliefs?

STEP 5: Include a copy of your individual results/report in your submission. Also, bring a hard copy to class for the in-class exercise.

STEP 6: Submit your work online:

The submission must meet all of the submission requirements listed below.

1. At the top of first page of your assignment (6 pieces of information):
  - ✓ your name, class number and name of class, assignment, submission date, name of faculty
2. Parts 2-4:
  - ✓ Typed, Times New Roman, 12 pt. font
  - ✓ Single-spaced
  - ✓ Include word counts at end of Part 4
3. Include your individual results/report
4. Submit as 1 PDF

Before you submit your work, ask yourself:

- ✓ Is my writing clear and concise?
- ✓ Is my submission carefully written, thoughtful, and specific?
- ✓ Is my writing well organized and easy to understand?
- ✓ Am I submitting a completely clean submittal (e.g., spelling, grammar and punctuation)?

To submit your work online [to the UNM Learn course page]:

Open the ASSIGNMENTS BRIEFS folder

- You will see a folder called "Assignment 1: EcoTypes pre-survey,"
- Open the folder, you will see the link to submit your work.

#### ASSIGNMENT 1 GRADING RUBRIC \_\_\_\_\_ / 30 pts.

Use this rubric as a checklist!

**Have you done ALL of the following? If not – 5 pts.**

Your submission must meet all of the requirements listed below:

- Have you submitted your work online by 10:59 am on Th 25 January?
- Have you included all of the following at the top of the first page of your submittal (6 pieces of information):
  - your name, class number and name of class, assignment, submission date, name of faculty
- Parts 2- 4: Is this work Typed, Times New Roman, 12 pt. font? And, is it single-spaced?
- Have you included your individual results/report?
- Have you submitted your work as 1 PDF

#### STEPS 2 – 4 (each part is worth 10 points = 30 pts. total)

A	B	C	D
10	8.5	7.5	0

A = You have followed the word count if noted, and word count is included; Written professionally; All aspects of this part of the assignment are complete; Thoughtful and detailed work.

B = You have followed the word count if noted and word count is included; Written professionally, but has some grammatical errors; Mostly complete; Could be a bit more thoughtful, and missing some detail.

C = You have not followed the word counts (i.e., word count is below minimum or above maximum), and word count may or may not be included; Written with slang phrases; Lack of professionalism and/or contains several grammatical errors; Not complete; Could be much more thoughtful, and is missing detail.

D = Unacceptable posting / Nothing submitted

# In-class Exercise #1:

## on index cards + with a partner

✓ Vocabulary (nature, land, environment, and ethics)



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Lost for Words? | Advanced search | Help

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Browse the whole dictionary from A to Z.
- Categories**  
Browse words by subject, usage, region, or origin.
- Timelines**  
Discover when words entered the English language.
- Sources**  
Explore the top 1,000 authors and works quoted in the OED.
- Historical Thesaurus**  
A taxonomic organization of all the contents of the OED.

My entries (0)  
My searches (0)  
OED Appeals  
OED appeals  
Help record the history of our language

Word of the day  
**Mallaby-Deeley, n.**  
1920  
A cheap suit of clothes (see quotes.). Also in extended use.  
[Sign up for word of the day >](#)

Recently published  
**thorough-draining, n.**  
**unlikeable, adj.**  
**gingerish, adj.1**  
**come-over, n.**

The Making of the Oxford English Dictionary  
We are pleased to announce the publication of Associate Editor Peter Gilliver's book, The Making of the Oxford English Dictionary. Find out more >

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More from Oxford  
Oxford Dictionaries

Great resource available to you through UNM libraries

# Vocabulary: nature, land, environment, ethics

## Dictionary

nature



## na·ture

/ˈnāCHər/

*noun*

1. the phenomena of the physical world collectively, including plants, animals, the landscape, and other features and products of the earth, as opposed to humans or human creations.  
"the breathtaking beauty of nature"  
*synonyms:* the natural world, Mother Nature, [Mother Earth](#), the environment; [More](#)
2. the basic or inherent features of something, especially when seen as characteristic of it.  
"helping them to realize the nature of their problems"  
*synonyms:* [essence](#), inherent/basic/essential qualities, inherent/basic/essential features, [character](#), [complexion](#) [More](#)



Translations, word origin, and more definitions

## Dictionary

land



# land

/land/

*noun*

1. the part of the earth's surface that is not covered by water, as opposed to the sea or the air.  
"the reptiles lay their eggs on land"  
*synonyms:* [terra firma](#), [dry land](#); [More](#)
2. a country.  
"the valley is one of the most beautiful in the land"  
*synonyms:* [country](#), [nation](#), [nation state](#), [state](#), [realm](#), [kingdom](#), [province](#); [More](#)

*verb*

1. put (someone or something) on land from a boat.  
"the lifeboat landed the survivors safely ashore"
2. come down through the air and alight on the ground.  
"planes landing at the rate of two a minute"  
*synonyms:* [touch down](#), [make a landing](#), [come in to land](#), [come down](#) [More](#)



Translations, word origin, and more definitions

## Dictionary

environment



# en·vi·ron·ment

/in 'vīrənmənt/ 

*noun*

1. the surroundings or conditions in which a person, animal, or plant lives or operates.  
*synonyms:* [habitat](#), [territory](#), [domain](#); [More](#)
2. the natural world, as a whole or in a particular geographical area, especially as affected by human activity.  
*synonyms:* the natural world, [nature](#), the earth, the planet, the ecosystem, the biosphere, Mother Nature; [More](#)



Translations, word origin, and more definitions

## Dictionary

ethics



# eth·ics

**/ˈeθɪks/** 

*noun*

1. moral principles that govern a person's behavior or the conducting of an activity.  
"medical ethics also enter into the question"  
*synonyms:* moral code, morals, **morality**, values, rights and wrongs, principles, ideals, standards (of behavior), value system, virtues, dictates of conscience  
"your so-called newspaper is clearly not burdened by a sense of ethics"
2. the branch of knowledge that deals with moral principles.



Translations, word origin, and more definitions

A large, sprawling pile of multi-colored trash, including plastic, paper, and other debris, covers the ground. In the background, a vast number of birds, likely gulls or terns, are seen in flight against a clear blue sky. The scene illustrates the impact of environmental pollution on wildlife.

**What and where are environmental problems/issues?**

**Think: local, regional, national, continental, global | ordinary events to extreme events**

## ECOTYPES: EXPLORING ENVIRONMENTAL IDEAS

ABOUT SURVEY AXES THEMES FOR STUDENTS FOR INSTRUCTORS

# Assignment #7: Re-take the EcoTypes Survey

## What Are Your EcoTypes?

Take our survey and browse resources on this site to find out!

MORE INFO

<https://ds.lclark.edu/ecotypes/>

# Re-Taking / Re-Visiting the Eco-Types Survey

For Assignment #7: Click this link to take the survey, and please take the survey : [EcoTypes site](https://ds.lclark.edu/ecotypes/)  
<https://ds.lclark.edu/ecotypes/>

- ✓ To help you grasp the axes, *The Eco-Types staff have prepared two sample applications to [climate change](#) and [sustainability](#)*
- ✓ *And, they have developed a quick [tutorial on engagement](#), that should help you think about the more abstract themes.*
- ✓ *You might want to check out this *short piece on the [cultural cognition](#) scale.**
- ✓ *Finally, to help your navigate the site, *I recommend the [step by step guide](#).**

# Assignment 7

ENVIRONMENTAL ISSUES IN A CHANGING WORLD  
CRP 181 001: Introduction to Environmental Problems | Spring 2018 | Dr. palmer  
University of New Mexico | SA + P | Community & Regional Planning  
<http://saap.unm.edu/academic-programs/community-regional-planning/>

ASSIGNMENT 7 GRADING RUBRIC \_\_\_\_ / 30 pts.

Use this rubric as a checklist!

ASSIGNMENT 7: EcoTypes Revisited (2.5% of overall grade)

ASSIGNED: Tu 17 April 2018

DUE: Th 3 May online by 10:59 am

## Eco-Types Survey (6 Steps)

STEP 1. Take the EcoTypes End-of-Semester Survey

Click this link to take the survey: [EcoTypes site](#) ... or use this link: <https://ds.lclark.edu/ecotypes/>

- To help you grasp the axes, *The Eco-Types staff have prepared two sample applications to [climate change](#) and [sustainability](#)*, and
- *A quick [tutorial on engagement](#)*, that should help you think about the more abstract themes.
- You might want to check out this *short piece on the [cultural cognition scale](#)*.
- Finally, to help you navigate the site, *I recommend the [step by step guide](#)*.

STEP 2. Once You've received your results and have found your results from the beginning of the semester, **compare** your End-of-Semester Survey Results with your initial Beginning-of-Semester Survey Results → **Make a list of initial responses** to this pair of results (3-5 items should be on this list)

STEP 3: Reflect on how your results have changed; any thoughts about your change of values/perceptions, and your knowledge of/about environmental issues. Minimum of 150 words / maximum of 200 words (include the word count).

For example, you might think about the following:

- Are you surprised by your results?
- What are some things you are now (versus at beginning of the semester) thinking about, re: your environmental values and beliefs?

STEP 4: Results

- a. Include a copy of your individual results/report in your submission → I recommend saving your results as a PDF. Save Steps 2 +3 as a PDF, then Create > Combine files into one PDF
- b. Bring a hard copy to class for the in-class exercise on the last day of class.

STEP 5: Submit your work online:

The submission **must** meet all of the submission requirements listed below.

1. At the top of first page of your assignment (6 pieces of information):
  - ✓ your name, class number and name of class, assignment, submission date, name of faculty
2. Parts 2-4:
  - ✓ Typed, Times New Roman, 12 pt. font
  - ✓ Single-spaced
  - ✓ Include word counts at end of Part 3
3. Include your individual results/report
4. Submit as 1 PDF

Before you submit your work, ask yourself:

- ✓ Is my writing clear and concise?
- ✓ Is my submission carefully written, thoughtful, and specific?
- ✓ Is my writing well organized and easy to understand?
- ✓ Am I submitting a completely clean submittal (e.g., spelling, grammar and punctuation)?

**Have you done ALL of the following? If not – 5 pts.**

Your submission **must** meet all of the requirements listed below:

- Have you submitted your work online by 10:59 am on Th 3 May?
- Have you included all of the following at the top of the first page of your submittal (6 pieces of information):
  - your name, class number and name of class, assignment, submission date, name of faculty
- Parts 2- 4: Is this work Typed, Times New Roman, 12 pt. font? And, is it single-spaced?
- Have you included your individual results/report?
- Have you submitted your work as 1 PDF

STEPS 2 – 4 (each part is worth 10 points = 30 pts. total)

A	B	C	D
10	8.5	7.5	0

**STEP 2. → Make a list of initial responses to this pair of results (3-5 items should be on this list)**

A = You have made a list of 3-5 items/responses; Detailed, clear and thoughtful work

B = You have only made a list of 2-3 items/responses; Could be a bit more thoughtful, missing some detail.

C = You have only made a list of 1-2 items/responses; Not very clear/thoughtful, and missing detail.

D = Unacceptable posting / Nothing submitted

**STEP 3: Reflect on how your results have changed; any thoughts about your change of values/perceptions, and your knowledge of/about environmental issues. Minimum of 150 words / maximum of 200 words (include the word count).**

A = You have followed the word count and word count is included; Written professionally; All aspects of this part of the assignment are complete; Thoughtful and detailed work.

B = You have followed the word count if noted and word count is included; Written professionally, but has some grammatical errors; Mostly complete; Could be a bit more thoughtful, and missing some detail.

C = You have not followed the word counts (i.e., word count is below minimum or above maximum), and word count may or may not be included; Written with slang phrases; Lack of professionalism and/or contains several grammatical errors; Not complete; Could be much more thoughtful, and is missing detail.

D = Unacceptable posting / Nothing submitted

**STEP 4: Results**

a. Include a copy of your individual results/report in your submission.

b. Bring a hard copy to class for the in-class exercise on the last day of class.

**YES for both a + b = 10 pts | NO for either a or b = 0 pts**

### **III. Using the survey...** individual results, and the survey axes and themes as touchstones throughout the course

- ✓ Axes and themes as vehicles for weekly discussions
- ✓ Perceptions and misconceptions
- ✓ Behavior and actions: individual and collective

### **The EcoTypes survey is more than a stand-alone (“one off”) course event.**

- ✓ Pre-survey
- ✓ “Chapter-by-chapter”
- ✓ Post-survey



# READING 1 of 2

NATURE | NEWS FEATURE

## How to solve the world's biggest problems

Interdisciplinarity has become all the rage as scientists tackle climate change and other intractable issues. But there is still strong resistance to crossing borders.

Heidi Ledford

16 September 2015 Corrected: 21 September 2015



Illustration by Dean Trippie

Asking for US\$40 million is never easy, but Theodore Brown knew his pitch would be a particularly tough sell. As vice-chancellor for research at the University of Illinois at Urbana–Champaign in the early 1980s, Brown had been tasked with soliciting a major donation from wealthy chemist and entrepreneur Arnold Beckman, a graduate of the university. Beckman was hesitant, believing that the university should receive most of its support from the state. So Brown decided to devise a project like nothing he had ever seen before.

In 1983, he and his colleagues put together a proposal for an institute that had little chance of being funded through

<http://www.nature.com/news/how-to-solve-the-world-s-biggest-problems-1.18367>

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Print

# 2

journals. In many cases, scientists say, the trend is nothing more than a fashionable label. "There's a huge push to call your work interdisciplinary," says David Wood, a bioengineer at the University of Minnesota in Minneapolis. "But there's still resistance to doing actual interdisciplinary science."

### Highly disciplined

The idea of dividing academic inquiry into discrete categories dates back to Plato and Aristotle, but by the sixteenth century, Francis Bacon and other philosophers were mourning the fragmentation of knowledge.

One problem lay in the rapid growth of science: there was too much information spread across the disciplines for any one person to handle. Science historian Peter Weingart of Bielefeld University in Germany points to Carl Linnaeus's taxonomic treatise *Systema Naturae* as an example: between its first edition in 1735 and its last in 1768, the catalogue swelled from 10 pages to 2,300, covering 7,000 species.

In the nineteenth century, the disciplinary boundaries of the modern university started to take root. The disciplines surged in number and power after the Second World War, as nations, particularly the United States, boosted their research support. "It's the moment when universities increased exponentially," says Vincent Larivière, an information scientist at the University of Montreal in Canada. "And the size of the university increased by creating more departments."

Tensions between the United States and the Soviet Union also played a part, says Weingart. The Soviets boasted a research programme geared towards solving societal problems, for example improving agriculture to boost food security. By contrast, US President Dwight Eisenhower argued that basic research should be untethered. "In the field of intellectual exploration, true freedom can and must be practised," he said in a 1959 speech. And although basic research need not necessarily be disciplinary, it does not have the same pressure towards interdisciplinarity as does applied research.

Specialities proliferated as individual disciplines were repeatedly subdivided. Biology was split into botany and zoology, then into evolutionary biology, molecular biology, microbiology, biochemistry, biophysics, bioengineering and more. Late last year, Jerry Jacobs, a sociologist at the University of Pennsylvania in Philadelphia, counted the number of biology-related departments at Michigan State University in East Lansing. There were nearly 40.

From this thicket, the term 'interdisciplinary' emerged. The earliest citation in the *Oxford English Dictionary* dates back to December 1937, in a sociology journal. But even at that time, some believed that the word was already overused. In a report to the US Social Science Research Council in August that year, a sociologist at the University of Chicago in Illinois lumped 'interdisciplinarity' in with other "catch phrases and slogans which were not sufficiently critically examined" (R. Frank *Items* 40, 73–78; 1988).

How to solve the world's biggest problems : Nature News & Comment

9/22/15, 10:21 AM

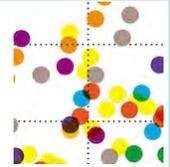
the project to suffer, she says. The UK Energy Research Centre (UKERC) in London, which since 2004 has coordinated and carried out sustainable-energy research, learned how delicate interdisciplinary relationships can be, says Mark Winskel, a social and political scientist at the University of Edinburgh who evaluated the centre's first decade. Its initial five-year phase went well, he says, and culminated in a key publication: *Energy 2050*, which synthesized the institution's results and translated them into recommendations. But the next five-year phase failed to produce a similar achievement.

Winskel surveyed members and found that changes in the UKERC's structure designed to open it to a wider community — for example by offering several rounds of fresh grants in the middle of phase two — had upset some established long-term relationships. "We became a more diverse community of scholars and disciplines," he says. "But that also means you become less cohesive." The UKERC learned from the experience: its third phase, launched in May 2014, aims to provide more stability for collaborative relationships.

Social scientists in particular often face that lack of cohesion, says Thomas Heberlein, a social psychologist at the University of Wisconsin–Madison. When funders emphasize the societal impacts of the work they support, social scientists are often called in to assess the broader implications of a project. But, he says, it is obvious — and insulting — when a social scientist is asked to join a project as a way to tick a box, without a true commitment to incorporating the discipline into the project.

Social struggle

Data crunch:  
Interdisciplinary  
research



## **I. Introduction**

- Cooperative, interdisciplinary work
- Santa Fe Institute, NM
- Beckman Institute for Advanced Science and Technology

## **II. Highly disciplined**

- Silos; specialization
- 1937: term emerged = interdisciplinary
- 1970's > but still have problems ☹
- Not just in the United States

## **III. Team Work**

- Transitioning to interdisciplinarity is a challenge
- The right reasons for forming teams

## **IV. Social Struggle**

- Who participates and why? Or why not?
- Lack of respect, suspicion, atmosphere for publishing, experiment in progress, stimulating interest and funding
- What's happening globally?

# Eco-Types Survey

Click this link to take the survey, and please take the survey by 30 August: [EcoTypes site](https://ds.lclark.edu/ecotypes/) | <https://ds.lclark.edu/ecotypes/>

- ✓ To help you grasp the axes, *The Eco-Types staff have prepared two sample applications to [climate change](#) and [sustainability](#)*
- ✓ *And, they have developed a quick [tutorial on engagement](#), that should help you think about the more abstract themes.*
- ✓ You might want to check out this *short piece on the [cultural cognition](#) scale.*
- ✓ Finally, to help your navigate the site, *I recommend the [step by step guide](#).*

## DISCUSSION:

**Did your eco-type change?**

**What did you learn from taking this survey again?**

## **IV. Involving undergraduate students in research & in the scholarship of teaching and learning.**

- ✓ Why research matters!
- ✓ Who “does” research.
- ✓ Research informs action | Action prompts further research

# Student Research

## Shades of Green: Environmental Nonprofits and Their Ideologies

Kelsey Martin  
CRP181\_001  
Environmental Issues in a Changing World  
Dr. Palmer/Angelique Maldonado  
November 30<sup>th</sup>, 2017

### I. Goal of Research, and Relevance of Topic

- Ideology is the foundation of our opinions
- We have preconceived notions about environmental issues
- How do these perspectives manifest in environmental nonprofits?
- Allows me to investigate my own environmental ideology
- The research provides a visual spectrum that anyone can use to see where they fall
- The research also provides insight when assessing what organizations to be involved in or donate to

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### II. Research Question

How do various environmental nonprofits fit on a spectrum from ecocentric to anthropocentric?

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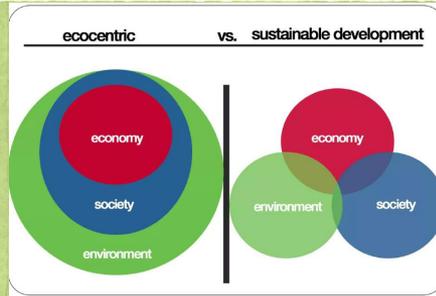
### III. Abstract

The purpose of my work was to understand differing environmental ideology and construct a spectrum from that ideology. I chose **Ecocentrism and Anthropocentrism** and the two opposite ends of the gradient. I decided to analyze nonprofits in their relation to this spectrum and attempt to categorize them based on their ideology. I hope that this spectrum can work as a foundation for categorizing other nonprofits and other organizations. I used peer-reviewed articles about environmental ideology and the nonprofits in questions to conduct my research, as well as information taken from the websites of the nonprofits. I concluded Environmental Defense Fund to be the most anthropocentric, and the Earth Liberation Front to be the most ecocentric.

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## V. A Framework

- Anthropocentrism:
  - Culture (Ecotypes)
  - Global
  - Technophilic
  - Humans separate from nature (rationality)
  - Philanthropy
- Ecocentrism:
  - Nature
  - Local
  - Critique of Western Values
  - Technophobic
  - Environment as intrinsically valuable
  - Reduction of human population
  - Spirituality



<http://buddhajeans.com/encyclopedia/ecocentric-diagram/>

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## VI. Spectrum



8

## VII. Environmental Defense Fund



- Founded by Dennis Puleston (1967), helped secure a nationwide ban on DDT
- 2million members
- Balancing economic development and ecological well-being (focus on human prosperity)
- Works with members of Congress and large corporations
- "we take a pragmatic approach that benefits people *and* nature"
- "guided by science and economics, we tackle urgent threats with practical solutions"

<https://www.edf.org/>

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## VIII. Summary

Here are some qualities that stood out to me that stood out to me as indicators within the organizations:

- Willingness to work with corporate and political entities
- Organizational structure
- Philanthropic endeavors
- "Humans *as* nature" or "humans *and* nature"
- Controversy, defiance, animal rights
- Pragmatic rationalism vs. cultural beliefs in conflict with Western thought

Limitations: Definitions are relative, some organizations do not have single ideologies like humans do

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# Survey

94 respondents

Dates of survey: 8 - 24 May | Results: June 2nd 2018, 4:58 pm MDT

Hello.

Thank you for taking the time to participate in this study! I am joni palmer, a faculty in Community & Regional Planning at UNM. Kelsey Martin, my undergraduate research assistant, and I hope you will be willing to complete this survey along with a follow up survey about environmental issues in a changing world. The results of this survey will be part of a paper presentation at AESS in June 2018.

The idea for this project began in the fall semester of 2017. I asked the students in my Environmental Issues class (Kelsey was enrolled in the class) to take the EcoTypes Survey. It was the first time I included this survey in the class—I found it was a productive teaching tool that we returned to time and again throughout the semester. Kelsey used what she learned from taking the survey (and the questions it prompted) as a point of departure for her semester research project. Thus was born this study.

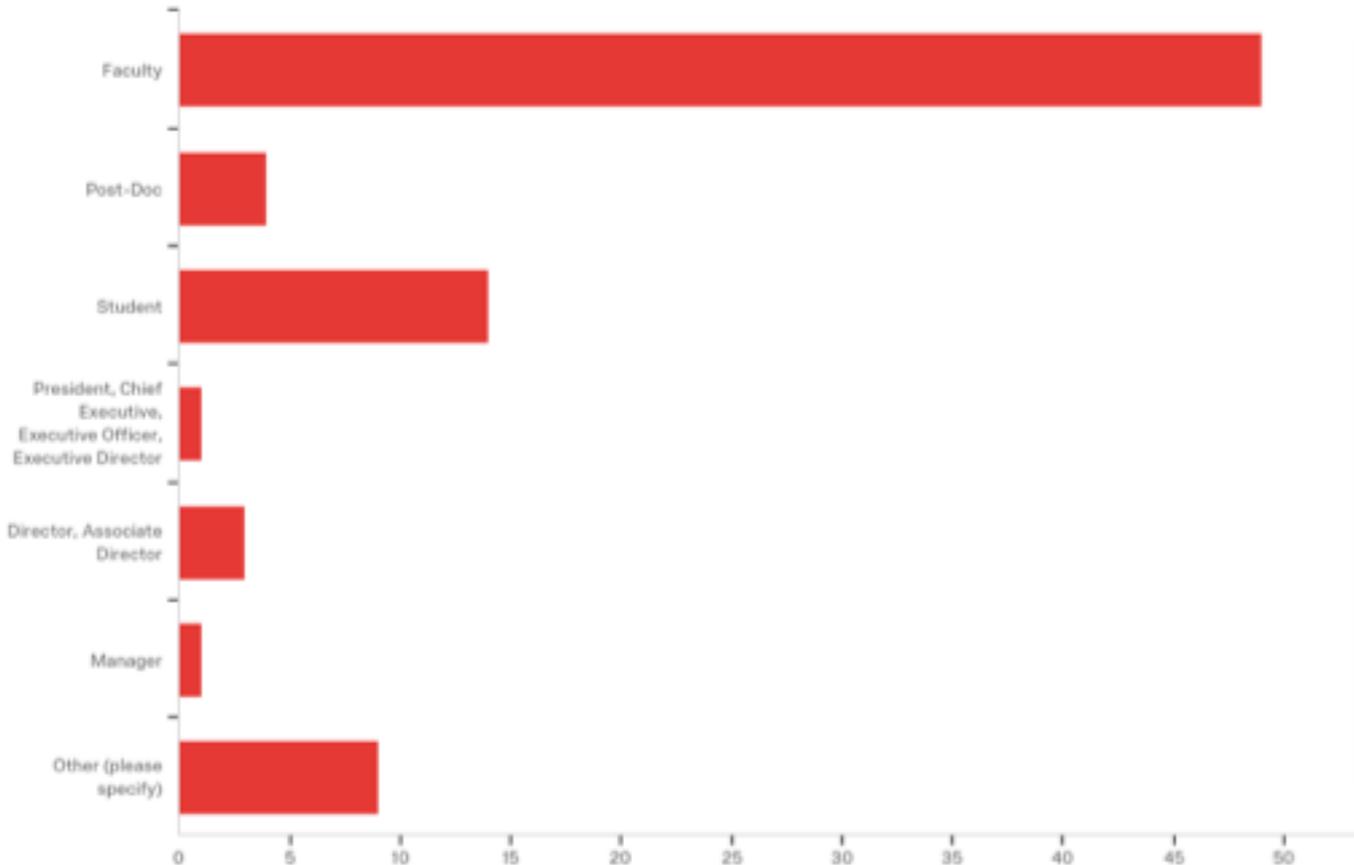
The objective of this survey is to gain a better understanding of the environmental issues you (faculty, students, researcher, advocates, etc.) feel divide as well as unite the environmental community (academics/researchers/scholars and environmental advocates), and which environmental organizations you feel are important to classroom discussions. We will analyze the responses to this survey and develop questions for a follow-up survey. We know this is a busy time of year, but we ask that you please complete this survey by 20 May 2018.

Thank you for your time!

Best,

joni and Kelsey

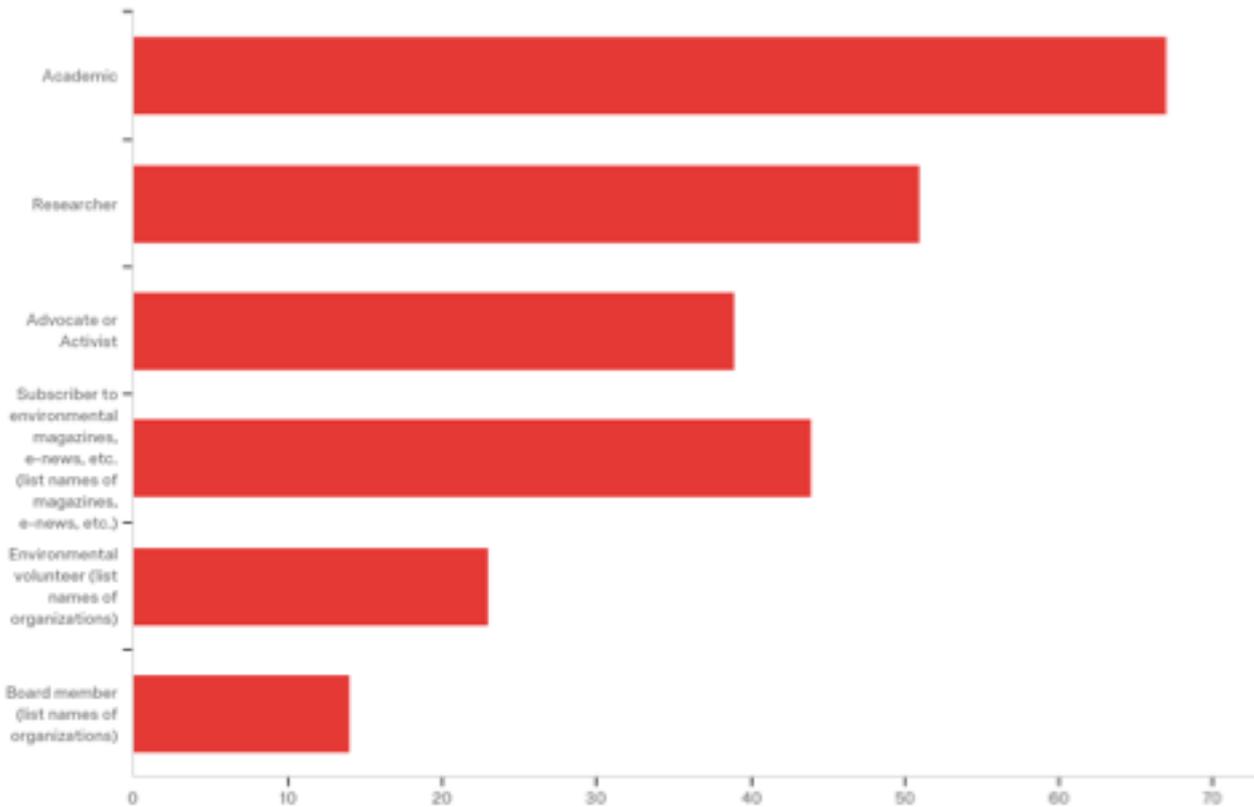
# Q4 - Are you a ... (please check whichever option best describes you)



#	Answer	%	Count
1	Faculty	60.49%	49
2	Post-Doc	4.94%	4
3	Student	17.28%	14
4	Pres, Chief Exec, Exec Officer, ED	1.23%	1
5	Director, Associate Director	3.70%	3
6	Manager	1.23%	1
7	Other	11.11%	9
	Total	100%	81

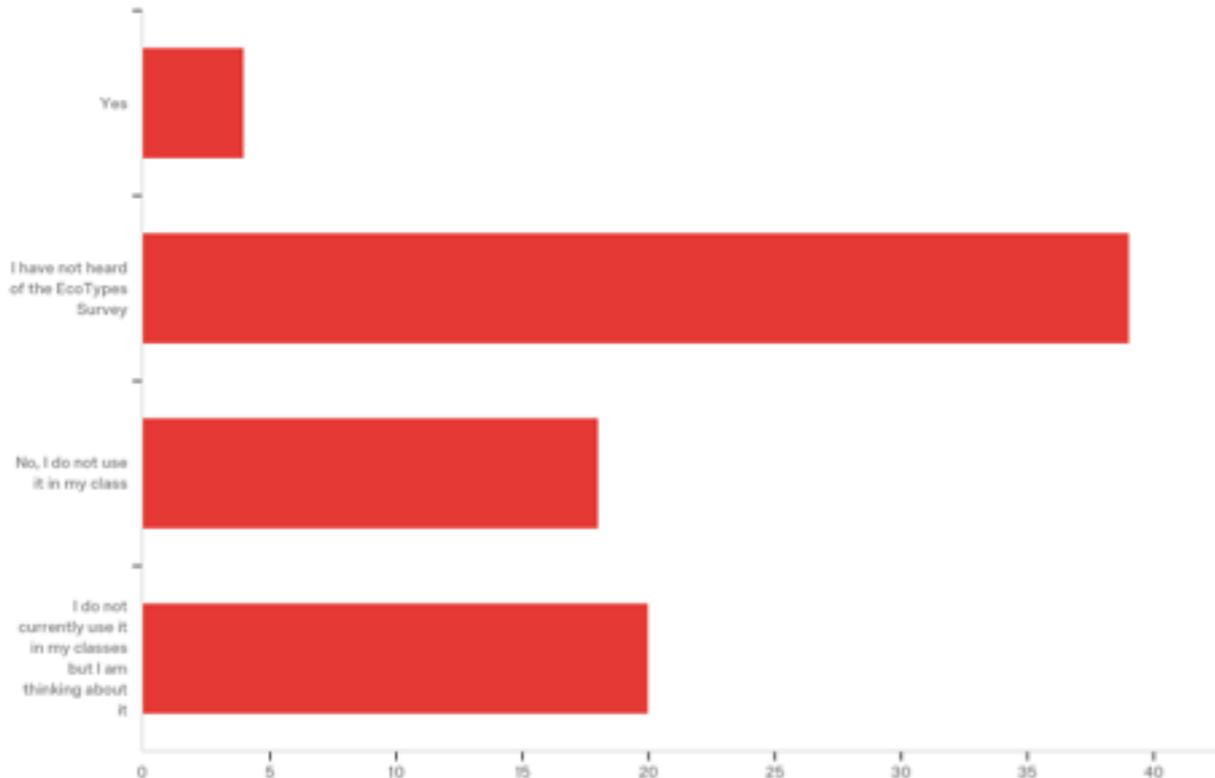
# Q6 - What is your role in environmental activities/organizations?

Click on any/all of the below, as appropriate, and please provide more detail in the text boxes below.



#	Answer	%	Count
1	Academic	28.15%	67
2	Researcher	21.43%	51
3	Advocate or Activist	16.39%	39
4	Subscriber to environmental magazines, e-news, etc. (list names of magazines, e-news, etc.)	18.49%	44
5	Environmental volunteer (list names of organizations)	9.66%	23
6	Board member (list names of organizations)	5.88%	14

**Q7 - Have you used the EcoTypes Survey in any of your classes? "EcoTypes gets at some fundamental ideas that affect how you approach environmental issues. The 15 minute survey covers thirteen different EcoTypes axes. You can receive a personalized report summarizing your responses. Then you can compare your responses with others and learn more about these EcoTypes axes and overarching main themes on this website." (from the EcoTypes website)**



#	Answer	%	Count
1	Yes	4.94%	4
2	I have not heard of the EcoTypes Survey	48.15%	39
3	No, I do not use it in my class	22.22%	18
4	I do not currently use it in my classes but I am thinking about it	24.69%	20
	Total	100%	81



## **What do you think are the most divisive topics in the university classroom today?**

- “Social Justice Consideration” had the most mentions (22) out of thirty six topics
  - Ranging from “Environmental Justice” to “Indigenous Traditional Knowledge”
- Economic Development (21 mentions)
  - Many commented on the difficulty of balancing economic progress and environmental progress, criticisms of Capitalism
- How should the environmental community relate to social justice?
- How do you address these divisive issues within the classroom?



## **What do you think are the 2-3 topics that most unite the environmental community today?**

- Climate change received the most mentions out of twenty seven terms (30 mentions)
  - Also mentioned often in the previous question, but responses were phrased differently, the data shows that people think climate change is real and something must be done about it, but there is much divide on what our response
- Are we progressing towards a more unified environmental community?
- Are classrooms more divided or less divided than the environmental community at large?
- The responses to this question were less complex and more unified than the previous question.

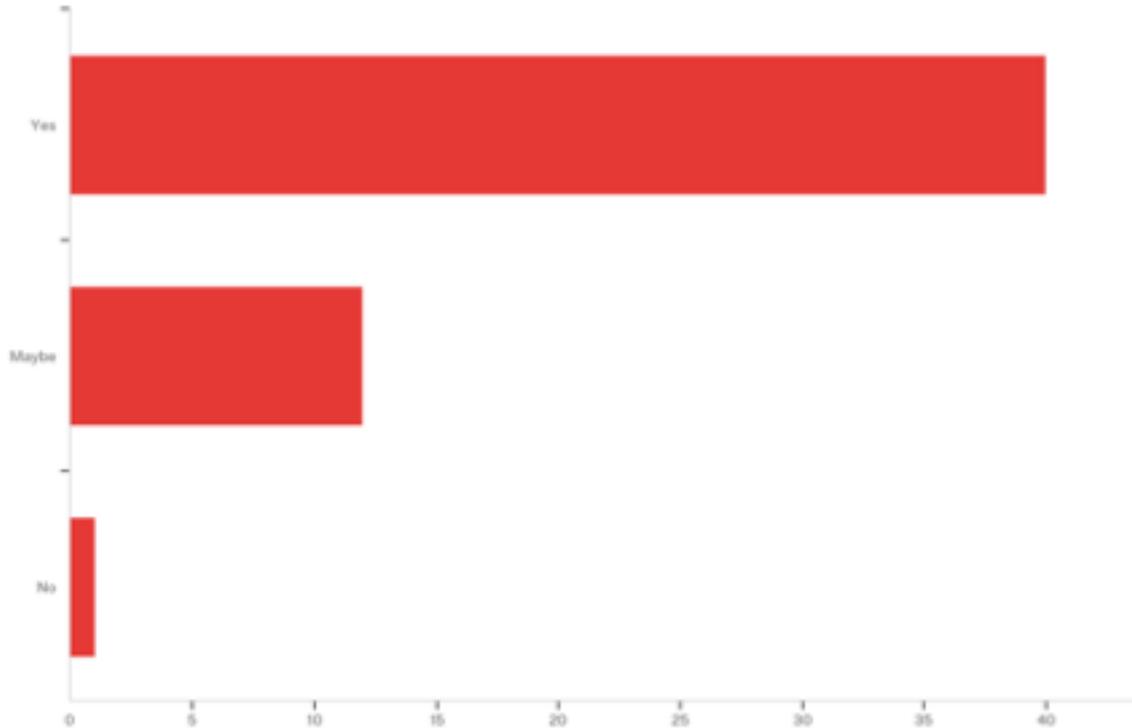
## **List 3-5 environmental organizations you think are important for students to learn/know about.**

- The organizations that received the most mentions were: The Sierra Club (21 mentions), National Resource Defense Council (16 mentions), and The Nature Conservancy (15 mentions).
- I am curious to explore the geographical links of the organizations
  - do people favor local organizations?
  - How do certain environmental organizations vary geographically?
  - A pattern emerged where responses did not always mention specific organizations, but rather that they thought it was most important for students to learn about organizations local to them.

## **List 3-5 environmental organizations you feel are not well known but should be.**

- “Any local organization” (7 mentions), “region-specific organizations” (3 mentions), and “Indigenous Environmental Network” (three mentions).
  - The region-specific responses typically gave examples of organizations that worked for specific local causes (local natural environments). However, these two types of responses could be combined.
- “The Indigenous Environmental Network” ties into Question 10, where people mentioned the need for diversity in the environmental movement, specifically from indigenous people.
- “Local Organizations” was also a popular response in the previous question, showing that repeatedly, people think local organizations are extremely important when discussing environmentalism.
- What does this data suggest about the people surveyed?
- How aware should student be about various organizations?

# Q14 - Do you believe there is a benefit to teaching about environmental organizations in a classroom setting?



#	Answer	%	Count
1	Yes	75.47%	40
2	Maybe	22.64%	12
3	No	1.89%	1
	Total	100%	53

## Q15 - Any additional comments or questions?

### Any additional comments or questions?

As for the previous question, the answer is a big ""YES"".

Teaching about environmental issues and climate change in particular can be scary or demoralizing for students. Teaching about organized groups that are working to make a difference is an important way to give students HOPE. Students tell me that it helps them feel more hopeful about our environmental situation. I require students to participate in an Experiential Learning Activity for 3 hours during the semester, and many of them get involved with a local organization and they REALLY seem to appreciate this experience.

I discuss a number of organizations in my classes but usually will steer clear from any uncritical endorsements because I want my students to be aware that any organization just works on any part of the picture. A good example would be the World Wildlife Fund, which obviously does some great conservation work but also operates in ways that sometimes align with colonialist models or try to fit local communities into systems that don't account for local needs. The environmental classes I teach often try to push students to think about scale in rhetorics of environmentalism.

I could imagine linking discussions of these organizations nicely to the reading of some of the classic enviro-lit texts that address similar issues -- the work of these organizations as a follow-up to long-term concerns addressed in these texts.

## Any additional comments or questions?

I did not feel I got a chance to articulate what I think are the key action-strategies of our time. In brief, three actions most likely to save us are:

1. Put a Price on Carbon
2. Devalue Large Corporations in the Political Process
3. Decentralize decisionmaking

Thanks!

Yes - many students come to Env Studies with the knowledge of a few established environmental and conservation organizations. Sometimes, students hold the impression that all conservation organizations are inherently 'good'; however, Indigenous communities and communities of colour are often further marginalized in some conservation efforts which tend to conserve in areas of the globe that part of traditional land uses by Indigenous people. The results sometimes produce "conservation refugees" at worst, and at best, do little to include voices traditionally left out of the conversation in such initiatives. Critically unpacking the relationship between healthy ecosystems and healthy social systems is key to my classroom teaching.

of course none of this should be uncritical examinations but reflexive with tough questions

It is critical to connect environmental ethics studies to environmental action  
It is important to place environmental organizations in the context of stakeholders in public policy debates  
It is important to connect science, ethics and public policy as critical components of political decisions

## Any additional comments or questions?

Again, I think there's definitely a benefit to discussing particular types of organizations in a classroom, but the specific names (e.g., Greenpeace, American Rivers) I would only include as referenced to a particular case study or example. The exception is government agencies and learning what they do (or should do).

Students should attend regional and national meetings of discipline and related organizations. They should be required to attend a meeting of a local government committee/board/commission where an environmental decision is being made

I think it's important to teach about a range of groups and individuals so students are exposed to the spectrum of tactics to effect environmental change, the problems therein, and the shades of grey involved in environmental issues. E.g., too often environmental groups neither take into account nor try to make common cause with people affected by what they advocate, and some groups are more questionable than others - e.g., Paul Watson and Sea Shepherd Society.

Environmental organizations (broadly defined) can provide a great point of entry for student projects in an environmental social science class. We get into social movements and organization theory, then students select an international/national/regional or local organization and do a deep dive-- to examine their history, strategies/tactics, media footprint, membership and funding sources, coalition partners, etc. Depending on the group, there may be interviews and participant observation. The organizations are an excellent way to bridge to specific and overlapping environmental issues, the specifics of which students often previously knew little about.

## Any additional comments or questions?

Students learn about 3 branches of Government-- Executive, legislative & judicial. In a democracy there is also a 4th branch which is citizens. Citizen environmental groups support research, reports, advocacy campaigns and lawsuits that can influence environmental policy. However, in libraries and classrooms these groups are seldom highlighted, possibly out of concern that the professor will seem to be pushing an agenda. I believe that environmental issues should be taught identifying stakeholders who are both pro and anti-environment, and then reading information directly from those stakeholders as well as scholarly books and articles that analyze those positions.

I am curious about the ecotype survey and will check it out.

Less knowledge about and more agency and practice with, through campus-community relationships and relationship building. Then these projects and local orgs can be explored through the lens of national and international networks of folks doing similar work and making similar commitments at different scales. Let students look them up, evaluate effectiveness or measures to assess this, and figure out how they want to fit in.

The question above is puzzling:  
"classroom setting: as opposed to field trips? Or web based exercises?"

# **V. Reflection...** how to further expand the survey as a teaching and learning tool.

## **Point 1 of 3: Survey as:**

- ✓ point of departure for the course
- ✓ touch points throughout the course
- ✓ opportunity for end-of-semester critical reflection

# Student comments and questions

## General Comments

- I was surprised by how extreme my responses/results were, now I am thinking about how to get at the nuances of my results and better understand my EcoType.
- My results got me thinking aspirationally. I am now thinking about what kind of environmentalist I want to be, and what changes I need to make in achieving that.

## **Questions the survey prompted:**

- What technology is being created to help solve environmental problems besides the capturing of renewable energy?
- the survey addressed the topic of "sacredness" within nature a lot, how much is the spiritual element going to be addressed in this class regarding nature, and their contrast to man made green spaces?
- How corporate has the effort to help fix ecological and environmental issues become?
- How do my answers as an international student from Australia differ/align from those in the USA?
- Does an individual's level of education and exposure influence their answers and views? If so, How?
- How have I as a person come to these conclusions and views?
- What have my influences been?

## **Questions the survey prompted (continued)**

- I'm curious where this information gets compiled.
- I'm curious about where I stand vs. The majority of people.
- I'm unclear about the manipulating things into ideas question, the science vs stories of the past and the global vs local action questions.
- I'm unclear about the manipulating things into ideas question, the science vs stories of the past and the global vs local action questions.

## Questions about the survey (as a tool):

- quite a few questions seemed repetitive, usually asking similar questions with slightly different wording, if my answers were slightly different with each of these question variants, how would that effect my results?
- How do you plan/ how should we plan on using what we learned about ourselves from this survey throughout the rest of the course?
- From the data collected is there are trend or spread of results produced across America?
- From the responses, was there a correlation between different environmental points of view and general values within society?
- Is there enough data collected to form relations between different factors and their results?
- How does the survey work in analyzing your ecotype exactly? I noticed the survey has a wide range in questions from relating the environment spiritually to asking about your personal views?

## Questions about the survey (as a tool): CONTINUED

- How does receiving all the opinions from so many people actually help in making our environment a better and more sustainable place?
- The first question I had about the survey was how does asking about the distribution of **wealth** help categorize you into a certain Eco-Type?
- The second question I had about the survey was does this survey help **connect people with similar opinions so that they can try to enact change together?**
- Why was the question “When it comes to beauty, it is hard for people to improve upon wild nature,” asked? **Beauty** isn’t something universally agreed upon so it seemed odd that such a broad opinion based question would be asked on a survey about ecological problems..

## Questions about the survey (as a tool): CONTINUED

- On the last page, the survey prompted the taker to answer if they preferred interdisciplinary scholarships or disciplinary scholarship. What does this have to do with the survey? It seemed a little arbitrary to me.
- How will this survey affect the way I think of my lifestyle choices whether they are negative or positive?
- How do the questions form an analysis on each individual and the way they choose to address environmental problems?
- I would like to know where this information is going to, and who.
- Also I would like to know how peoples personal opinions are useful to officials and conservationists.
- I didn't fully understand all the spiritual questions.
- Will the topics addressed be talked about in this course?

## Questions about the survey (as a tool): CONTINUED

- How does the survey work in analyzing your ecotype exactly? I noticed the survey has a wide range in questions from relating the environment spiritually to asking about your personal views?
- Why did the survey ask more questions about political views
- Is the survey more about our ideals about how we individually use the land or more of how we believe human interaction has with it?
- Do our own ideas have a bigger impact on the land than those in a power position such as the government?
- Will this survey show how my knowledge has improved over the course?
- What does it mean if my 2nd results don't change from my 1st results?
- Why are the feelings about nature involved in the survey?

## **Point 2 of 3: Semester Research Projects**

- ✓ Use the survey to prompt EoSP research topics
- ✓ Have students speak to EcoTypes themes and axes as part of EoSP

## **Point 3 of 3: Thinking about the future**

- ✓ Internships
- ✓ Coursework
- ✓ Major / minor
- ✓ Career options

A colorful kite with rainbow-colored panels is flying in a bright blue sky with wispy white clouds. The kite is positioned in the upper right quadrant of the frame. The background is a soft-focus landscape with green trees and a building in the distance.

**Thank you!**

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