Fostering University-Wide Sustainable Behaviors Through Service Learning: A Classroom Transition From Theory to Real World Application

Roslynn Brain
Utah State University

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Fostering University-Wide Sustainable Behaviors through Service Learning: A Classroom Transition from Theory to Real World Application

R. Brain, PhD
Assistant Professor: Sustainable Communities Extension Specialist
Utah State University
Overview

- ENVS 5570: Sustainable Living
- Service Learning Successes and Failures
- Student Life-Skills Learned
Why Sustainable Living?

Sustainability is the conscious effort to behave in a manner that leaves this planet in a healthier state for future generations. This involves a three-legged intertwined commitment to improving environmental, economic, and social conditions. This course is designed to provide students with the theoretical and applicable tools to become effective sustainable change agents. Students will 1) experience first-hand the barriers and benefits of engaging in an individual proenvironmental change, 2) identify key theories explaining and predicting why people act sustainably, 3) work in groups with multiple stakeholders to implement a sustainability initiative on campus, 4) design a survey instrument with sustainability theory as a foundation to measure and analyze human behavior, 5) present their sustainability projects at the 1st Annual Student Sustainability Fair, and 6) publish their sustainability efforts in an Extension fact sheet (undergraduate) or academic journal (graduate).

This is your chance not only to be the change you wish to see, but to foster it!

Class Information

Class Meeting Time: MWF 11:30-12:20
Office Hours: MWF 12:30-1:30

Grading System:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>94-100%</td>
<td>A</td>
</tr>
<tr>
<td>90-94%</td>
<td>A-</td>
</tr>
<tr>
<td>87-90%</td>
<td>B+</td>
</tr>
<tr>
<td>84-87%</td>
<td>B</td>
</tr>
<tr>
<td>80-84%</td>
<td>B-</td>
</tr>
<tr>
<td>77-80%</td>
<td>C+</td>
</tr>
<tr>
<td>74-77%</td>
<td>C</td>
</tr>
<tr>
<td>70-74%</td>
<td>C-</td>
</tr>
<tr>
<td>67-70%</td>
<td>D+</td>
</tr>
<tr>
<td>64-67%</td>
<td>D</td>
</tr>
<tr>
<td>61-64%</td>
<td>D-</td>
</tr>
<tr>
<td>0-61%</td>
<td>F</td>
</tr>
</tbody>
</table>

Grades:

Midterm Exam: 15%
Participation: 40%
- In class discussions and contribution
- Weekly assignments
- Group Member Assessments
Project Handbook: 15%
Earth Week Events & Exhibit: 20%
Publication: 10%

By taking this course, you will be able to...

1. Describe top sustainability and conservation theories
2. Apply theory to measure and influence proenvironmental behavior change
3. Use social marketing techniques to foster sustainability
4. Design survey instruments to measure behavior and evaluate programmatic success
5. Communicate sustainability via educational exhibits, and academic and creative writing
6. Collaborate with multiple stakeholders on real-world sustainability initiatives

"Be the change you want to see in the world"

Mahatma Gandhi
Course Goals

- Live more sustainably in everyday life x19
- Understand how to influence others to live more sustainably x16
- Discover more about and expand personal beliefs about sustainability x15
Course Goals

- Get a good grade x8
- Implement a change with a lasting impact x5
- Be more involved with campus sustainability x3
- Learn theories x3
- Understand how non-environmentalists define sustainability X3
Course Goals

- Improve public speaking skills
- Design good survey instruments
- Greenwashing vs sustainability
- Learn sustainability in a hopeful/positive light
- Hone in on 1 non-environmentally sound behavior and change it
Course Overview

- Sustainability theory
- Timeline of major sustainability movements
- CBSM
- Major sustainability issues
- Students pick topics – merged themselves into groups (sizes ranging from 1-7)
- Earth Week
- Publication
Community-Based Social Marketing (CBSM)

- Select behaviors
- Identify barriers & benefits
- Develop strategies
- Pilot
- Broad-scale implementation and evaluation
Project Brainstorm

Large Scale Sustainability Issues?

Air Quality Index (AQI) Values

<table>
<thead>
<tr>
<th>Air Quality Index (AQI) Values</th>
<th>Levels of Health Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 50</td>
<td>Good</td>
</tr>
<tr>
<td>51-100</td>
<td>Moderate</td>
</tr>
<tr>
<td>101-150</td>
<td>Unhealthy for Sensitive Groups</td>
</tr>
<tr>
<td>151-200</td>
<td>Unhealthy</td>
</tr>
<tr>
<td>201-300</td>
<td>Very Unhealthy</td>
</tr>
<tr>
<td>301+</td>
<td>Hazardous</td>
</tr>
</tbody>
</table>

Utah State University
EXTENSION SUSTAINABILITY
Project Brainstorm

- Specific Behaviors?
Successes

1. Student Campus Sustainability Assessment & Letters on day 2
   - Extremely positive feedback
   - Demonstrated change can be easy
Successes

2. Panel

-logos of Starbucks, Caffe Ibis, Seafood Watch, and Utah State University - Extension Sustainability
Successes

3. Students pick topics & groups
- Recycling, Bike/Walk to School, BYOMB, Local food, Powder Wagon, Sustainable Eating Habits, Free Store
Successes

4. Collaboration
- Sustainability Panel
- Blue Goes Green
- Student Sustainability Office
- Dining Services
- Facilities
- Sustainability Council
Successes

5. Earth Week

EARTH WEEK 2012 (APRIL 9-13)
Successes

5. Earth Week
- Events published in 14 newspaper articles
- USU Earth Week Facebook page ‘liked’ by 134 people with a total reach of 5,313
- 1,015 environmental pledges signed
- Earth Week outreach video created & viewed by 108 people online
- Students presented their semester projects using posters and marketing tools at the Friday 1st Annual Student Sustainability Fair & added poster presentations to their resumes
Successes

6. Guest Lecturers (including students)
7. Flexibility (News Flash, Making Green more Macho, Sustainability in Big Industry)
8. Logan Landfill Tour
Successes

9. Publications

- Co-author 1 journal manuscript & 6 Extension fact sheets with course students
- NACTA journal: Changing lives in a semester: A teaching approach to help with tenure and promotion while providing an experience they’ll never forget
Failures

1. No weekly progress reports
   - Updates on stakeholder collaboration and involvement
   - Group member contributions each week
   - Keep students on task
Failures

2. Too many small-scale assignments.
   - Delete several and incorporate into end-of-week progress reports
Failures

3. Balance between student freedom and my immense impulse to micromanage
## Student Life Skill Assessment

<table>
<thead>
<tr>
<th>Skill</th>
<th>Before</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working in groups</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Working with various stakeholders</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Dealing with difficult people</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Negotiating</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Speaking up in class</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Implementing large-scale change</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Public speaking in general</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Fostering individual pro environmental behavior</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Fostering community-based pro environmental behavior</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Designing prompts to sustain behavior</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Using commitment to encourage behavior</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Establishing a norm to encourage sustainable behavior</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Effectively communicating to others with opposing points of view</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Applying effective communication messaging strategies to foster pro environmental behavior</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Applying sustainability strategies in the workplace</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Sustaining (long-term) positive change in others</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
Student Life Skill Assessment

- Paired Samples T-Test
- All skills statistically significant ($p = 0.001$ or smaller) at 95% confidence change from pre-post ($n = 27$)
Student Life Skill Assessment

- Largest change pre-post
  - Prompts (2.4 to 4)
  - Applying effective communication messaging strategies to foster pro environmental behavior (2.3 to 3.9)
  - Implementing large-scale change (2.2 to 3.7)
  - Fostering community-based pro environmental behavior (2.2 to 3.7)
  - Fostering individual pro environmental behavior (3.0 to 4.3)
Student Life Skill Assessment

- Sustaining (long-term) positive change in others (2.5 to 3.9)
- Norms & Commitment (2.5-3.9)
- Applying sustainability strategies in the workplace (2.9 to 4.2)
- Effectively communicating to others with opposing points of view (3.1 to 4.1)
- Public speaking in general (3.3 to 4.0)
Student Life Skill Assessment

- Working with various stakeholders (2.8 to 3.9)
- Working in groups (3.6 to 4.2)
- Speaking up in class (3.4 to 4.0)
- Negotiation (3.4 to 3.9)
- Dealing with difficult people (3.5 to 3.9)
Thank you!