

Western Washington University Sustainability Literacy Survey

Lauren Anderson
Chris Armstrong
Kevin Sliger

Table of Contents:

1.0 Executive Summary

1.1 Identification of Issue

1.2 What is Sustainability Literacy and why is it important?

2.0 Project Description

2.1 Survey Methodology

2.2 Survey Outline

3.0 Survey Analysis

4.0 Budget

5.0 Future Vision

6.0 Conclusion

7.0 Appendix

7.1 Case Studies

7.2 Survey Questions

7.3 Preliminary Survey Results

1.0 Executive Summary

1.1 Identification of Issue

Western is in need of a system to measure student knowledge of sustainability issues so that it can help foster a more sustainable lifestyle in students as they spend their time at college. A sustainability literacy survey will examine students knowledge of the three realms of sustainability - society, economy, and environment - as well as their behaviors and attitudes. The information gleaned from this survey would be used to analyze how the sustainability programs at WWU are valued, and how they can be improved.

The survey will be administered campus-wide at the end of spring quarter 2013. We are targeting freshmen, sophomores, juniors, seniors, and graduate students because we feel that this will give a clear indication of students knowledge of sustainability at all academic levels.

1.2 What is Sustainability Literacy and why is it important?

To achieve sustainability literacy as a student is to know about the interconnections and interdependence of environmental, social, and economic systems. Students should know how the livelihood of these systems determines the sustainability of nature and human communities. Students should use the knowledge that they gained and apply it to their lifestyle, campus and community. They should be able to apply their skills to solving environmental issues such as air and water pollution, over development, and habitat loss.

What's sustainability mean and why is it important to graduates?

Sustainability has many different meanings but the most popular is: Thinking long-term and using natural resources wisely so that future generations can have the same access. By changing our lifestyle to reduce waste, use less energy, and reduce pollution we can work towards a sustainable future that allows Earth's resources to be used for generation after generation. We must change our consumption habits and make sure we are more in tune with Earth's carrying capacity. It is important for Western graduates to use their knowledge and skills on sustainability to spread the word and promote green habits in their life and in their community.

2.0 Project Description

2.1 Survey Methodology

The survey was sent to students through the Bullseye Targeted Messaging system, which is a tool used by various groups in Western's community to reach out to the students, staff, and faculty via email. In addition, we will be using Snap survey software provided by Western's Office of Survey Research to develop the survey and compile the results.

2.2 Survey Outline

The survey will consist of approximately 20 questions that gauge students' knowledge of economic, social, and environmental sustainability, as well as behaviors and attitudes towards sustainability. The main focus of the survey is to quiz student on their knowledge of different information and aspects having to do with sustainability.

3.0 Survey Analysis

The survey was sent out to approximately 12,000 students on 6/5/2013 with a preliminary response rate of 435 students as of 6/9/2013 and is set to end on 6/12/13. 435 student responses represents 3.6% of the student population. While the survey is still ongoing, preliminary results can show us a few things about what Western students know and want. See section 7.3 of the appendix for preliminary survey result figures.

The response rate was pretty evenly distributed with freshmen at 14%, sophomores at 22.9%, juniors at 25.7%, seniors at 35.7%, and graduate students at 1.6%. 30.9% indicated they were in or planned to attend the college of Humanities and Social Sciences, 18.8% indicated the college of Business and Economics, 14.8% indicated Sciences and Technology, and 13.5% were from Huxley College of the Environment (Figure 1). 81.2% of respondents indicated they had a considerable interest or passion for sustainability (Figure 2).

Students generally did very well on questions 4 through 9, with no major distinctions in levels of knowledge among academic levels. Questions 10 through 13 seemed to be a little more difficult for students however. Only 60% of freshmen, sophomores, and juniors thought that trees were a renewable resource compared to 69.7% of seniors. About 50% of students correctly indicated the reason for declining fish populations. The number of students who correctly defined economic sustainability increased from 51.7% as freshmen to 68.7% as seniors (Figure 3). Question 14.f indicates a slight decrease in the use of alternative transportation as students move from freshmen to seniors.

At least 70% of students indicated that they were most interested to learn more about water pollution, air pollution, climate change, overpopulation, and energy conservation/efficiency (Figure 4). Students thought that large educational events, such as themed fairs would be most beneficial to help them learn more about sustainability, followed by social media, on-campus signs, and classes/workshops (Figure 5).

Students indicated that they would be interested in learning more about WWU sustainability programs, sustainable lifestyle choices, renewable energy sources, and tips for the home or residence hall (Figure 6). The top sustainability programs that students did know of included the Outback Farm, the Associated Students Recycling Center, and the Green Energy Fee Grant Program were the most well known. The Green Office Program, 10 x 12 Program, and ResRAP were the least well known sustainability programs at WWU (Figure 7).

4.0 Budget

The survey was implemented online, so there have been no costs associated with the survey so far. In the future, the Office of Sustainability and the Office of Survey Research should work together to minimize staff time costs associated with future survey analysis.

5.0 Future Vision

One intent of this survey is to be a tool for the improvement of sustainability programs at Western. This means using the survey as a means of providing feedback so that projects and programs can be refined and improved. One example is the Green Survival Guide, which is a student project that was created to provide information on simple sustainable living practices and other practical information. The team hopes to have a question or two in a future survey to determine its value and improvements.

In the future we hope the survey will be administered annually each Spring quarter. The beginning or middle of the quarter might be a better time to send the survey out to students than during Dead Week. Now that a survey framework has been developed for assessing sustainability literacy, a yearly assessment will be relatively simple to implement which will provide multiple years worth of comparative results that can reveal trends and provide a better understanding of students needs.

6.0 Conclusion

To create a campus wide survey that gauges students knowledge, behavior, and attitudes towards sustainability and use the data collected to improve awareness of sustainability and sustainable practices. Western Washington University is viewed as an institution that is dedicated to putting the environment first. With this survey we wish to show that WWU is doing what it can to make it's students aware of environmental degradation and the sustainable practices and lifestyles that can reduce human's impact of planet Earth. We hope that this survey will be conducted on a yearly basis and that it will provide useful information.

7.0 Appendix

7.1 Case Studies

Arizona State University

Student Sustainability Literacy Survey

The campus wide survey was done by the University Sustainability Practices office to assess their students' sustainability knowledge, sustainable practices, attitude about sustainability topics, and awareness about ASU sustainability initiatives. The survey was 10-15 minutes long, voluntary, and anonymous. There was 22 questions and at the end there was a spot for comments or questions and also if the student would like more information they can be emailed if they want. They found that the people who responded lack awareness about the different campus sustainability initiatives unfortunately.

Appalachian State University

Survey of Knowledge and Attitudes about Environmental Sustainability

The purpose of the survey was to find out what ASU faculty, staff and students know and feel about issues of sustainability. The survey was intended to benefit the ASU campus community by providing information that can help improve the effectiveness of sustainable education and outreach efforts. The survey of 10 questions was open from February 12-27th and was distributed through student, faculty and staff listservs. They had about 747-854 respondents, as some people skipped some questions. Of the people who responded, 66% were students, 15% faculty and 19% were staff. The majority of people who completed the survey had concern for environmental issues such as water and climate change. They found that for most people their concern for sustainability influences their actions.

Cal Poly San Luis Obispo

A undergraduate student at Cal Poly SLO, Rebecca Sokoloski, wished to assess the level of environmental consciousness and sustainable practices in the lives of students at her university. She did this by conducting a survey that aimed to find the importance of sustainability to the average student at Cal Poly SLO by assessing their attitudes towards sustainability, knowledge of the subject, and the social desirability of being sustainable. A main point of this research was to find a correlation between attitude and actions having to do with sustainable practices and lifestyles.

Previous studies and surveys have made claims that no correlation can be found between a person's attitudes of sustainable practices and their behavior. This study, as it turns out, found that there is indeed a correlation. Students that know more about environmental degradation and ways to live sustainability are more likely to have a positive attitude towards this school of thought. Also a correlation was found between one's desire to be more sustainable and how socially acceptable the idea is within their peer group. Another correlation covered in this study is the relationship between knowledge of sustainable acts and behavior. As postulated, knowledge and behavior are not correlated, because it was found that many participants wanted to behave in a sustainable way, but didn't necessarily have the knowledge.

7.2 Survey Questions

General:

1. Please indicate your grade level:
 - Freshman
 - Sophomore
 - Junior
 - Senior
 - Graduate student
2. Please indicate your college or the college you plan to attend:
 - Business and Economics
 - Fairhaven College of Interdisciplinary Studies
 - Fine and Performing Arts
 - Humanities and Social Sciences
 - Huxley College of the Environment
 - Sciences and Technology
 - Woodring College of Education
3. Please indicate which of the following statements best describes your level of interest in sustainability:
 - I have a passion for sustainability
 - I have a considerable interest in sustainability
 - I am neither interested nor disinterested in sustainability
 - I have little interest in sustainability
 - I have no interest in sustainability

Knowledge:

Environment:

4. Ozone forms a protective layer in the Earth's upper atmosphere. What does ozone protect us from?
 - Acid rain
 - Climate change
 - Sudden changes in temperature
 - Harmful UV rays
5. What is the most common reason that an animal species becomes extinct?
 - Pesticides
 - Habitat loss
 - Hunting
 - Climate change
6. What is the primary benefit of wetlands?
 - Promote flooding
 - Clean the water before it enters lakes, streams, rivers, or oceans
 - Keep the number of undesirable plants and animals low

- Provide good sites for landfills
7. What is the most common cause of stream and river pollution?
- Dumping of garbage by cities
 - Surface water running off yards, city streets, paved lots, and farm fields,
 - Litter near streams and rivers
 - Waste dumped by factories
 - Don't know

Social:

8. What is the name of the primary agency that oversees environmental regulation?
- Environmental Protection Agency (EPA)
 - Department of Health, Environment, and Safety (DHES)
 - National Environmental Agency (NEA)
 - Federal Pollution Control Agency (FPCA)
 - Don't Know
9. Which of the following is the most commonly used definition of sustainable development?
- Creating a government welfare system that ensures universal access to education, healthcare, and social services
 - Meeting the needs of the present without compromising the ability of future generations to meet their own needs
 - Setting aside resources for preservation, never to be used
 - Building a neighborhood that is both socio-demographically and economically diverse
 - Don't know
10. Since the 1960s, water quality in the US has improved primarily because of...
- Federal regulation of polluters
 - Voluntary action by polluters
 - Public education
 - It hasn't improved
 - Don't know

Economic:

11. Which of the following is a renewable resource?
- Oil
 - Iron ore
 - Trees
 - Coal
 - Do not know
12. Which of the following is a leading cause of depletion of fish stocks in the Atlantic Ocean?
- Fishermen seeking to maximize their catch
 - Reduced fish fertility due to genetic hybridization
 - Ocean pollution

- Global climate change
 - Don't know
13. Which of the following is the most commonly used definition of economic sustainability?
- Maximizing the share price of a company's stock
 - Long term profitability
 - When costs equal revenue
 - Continually expanding market share
 - Don't know

Behaviors:

14. Please rate the frequency with which you do the following: (Always, Usually, Rarely, Never)
- Recycle newspaper, glass, or plastic bottles on campus:
 - Minimize the waste you generate (for example, using reusable shopping bags or beverage containers):
 - Choose your food conscientiously based on its impacts (for example Fair Trade Certified or its carbon footprint):
 - Conserve water by taking shorter showers, turning the faucet off when not in use, doing only full loads of laundry:
 - Minimize purchases which are not environmentally friendly:
 - Conserve energy:
 - Use alternative transportation (for example, ride the bus or light rail, bike, walk, carpool, etc.):
 - Take classes that have a focus in social, economic, or environmental sustainability
 - Participate in activities on campus that promote sustainability (e.g. housing energy competitions)

Attitudes:

15. Which of the following environmental issues are you most concerned about having an impact on your life? (Select no more than four) ex: water pollution, habitat destruction, solid waste, climate change, air pollution, urban sprawl, biodiversity loss, human population growth, soil degradation, mining impacts, groundwater depletion, oil and gas impacts, hazardous waste, invasive species, ozone depletion, overfishing of the oceans.
16. Indicate how you feel about the following statements: "I would participate in sustainable practices more if... (Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree)
- I had more money
 - I had more time
 - I had a clearer way to measure and see the difference it makes.
17. Please indicate the degree of importance you place on the following personal sustainability issues: (Very Important, Important, Neutral, Unimportant, Very Unimportant, Not Sure)
- Recycling:
 - Minimization of waste being sent to the landfill:

- Choosing food based on its environmental impact:
 - Water conservation:
 - Purchasing environmentally friendly products:
 - Energy conservation:
 - Minimizing carbon emissions from transportation:
18. Which resources would you find most beneficial to help you learn more about sustainability
- Blogs
 - E-mail communication
 - In-person workshops / classes
 - Large educational events, such as themed fairs
 - On-campus signs
 - Online workshops / classes
 - Public forums
 - Social media websites (ex. Facebook, Twitter, etc.)
19. Which of the following would you be interested in learning more about?
- WWU sustainability programs and initiatives
 - Alternative transportation
 - Lifestyle choices that impact your carbon footprint
 - Recycling
 - Renewable energy sources
 - Tips for the home or residence hall (ex. reduce energy and water use)
20. Of the following sustainability programs at WWU, mark the programs that you already knew existed before taking this survey:
- 10 x 12 Program
 - Associated Students Recycling Center
 - Green Energy Fee Grant Program
 - Green Office Program
 - The Outback Farm
 - ResRAP
 - Sustainable Transportation
 - Sweater Days
 - Viking Supported Agriculture
 - Zero Waste Western
 - LEAD
21. If you have any questions or comments related to sustainability or this survey, please provide it in the space below:
22. If you would like to know more about sustainability news and events at Western, please provide your email in the space below:

7.3 Preliminary Survey Results

Figure 1. Q2: Please indicate your college or the college you plan to attend:

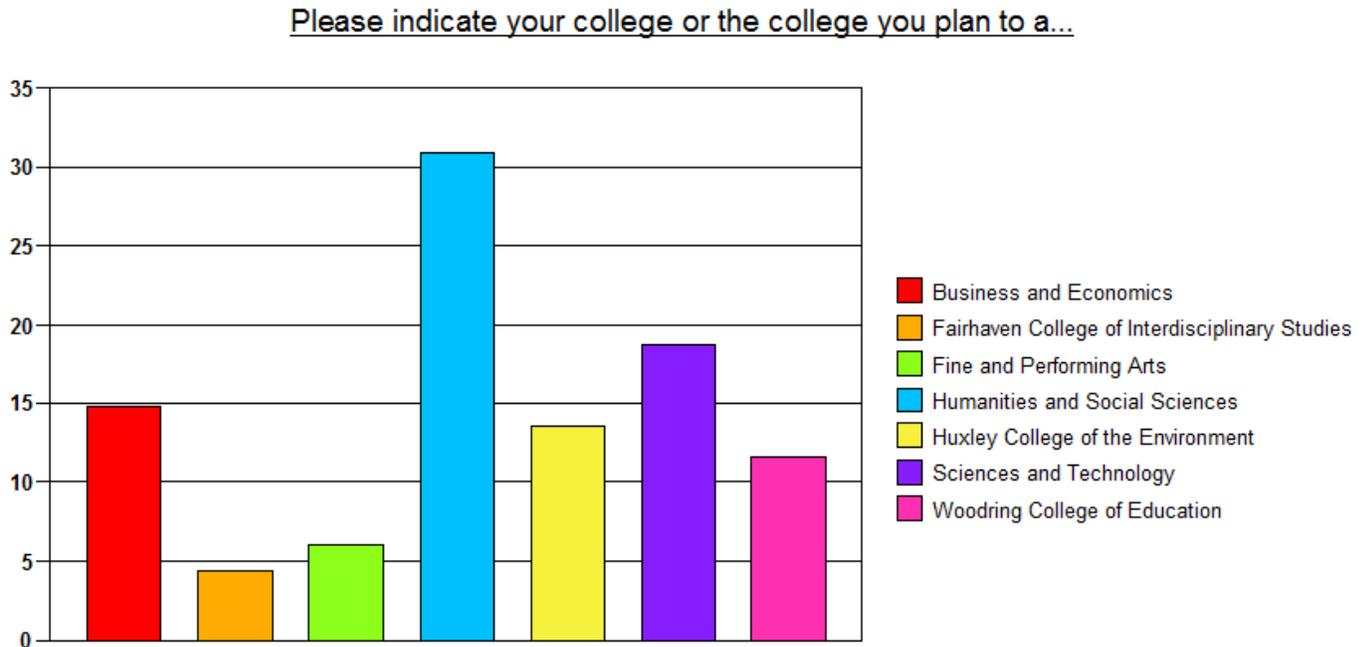


Figure 2. Q3: Please indicate which of the following statements best describes your level of interest in sustainability:

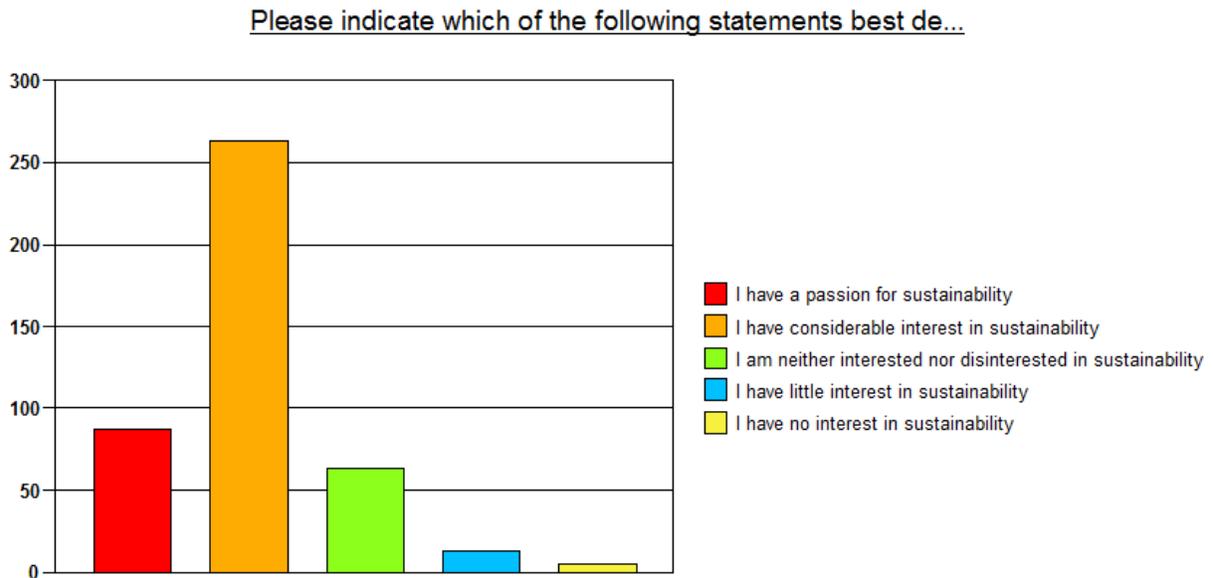


Figure 3: Q3: Which is the most commonly used definition of economic sustainability by grade level:

Which of the following is the most commonly used definiti... by Please indicate your grade level:

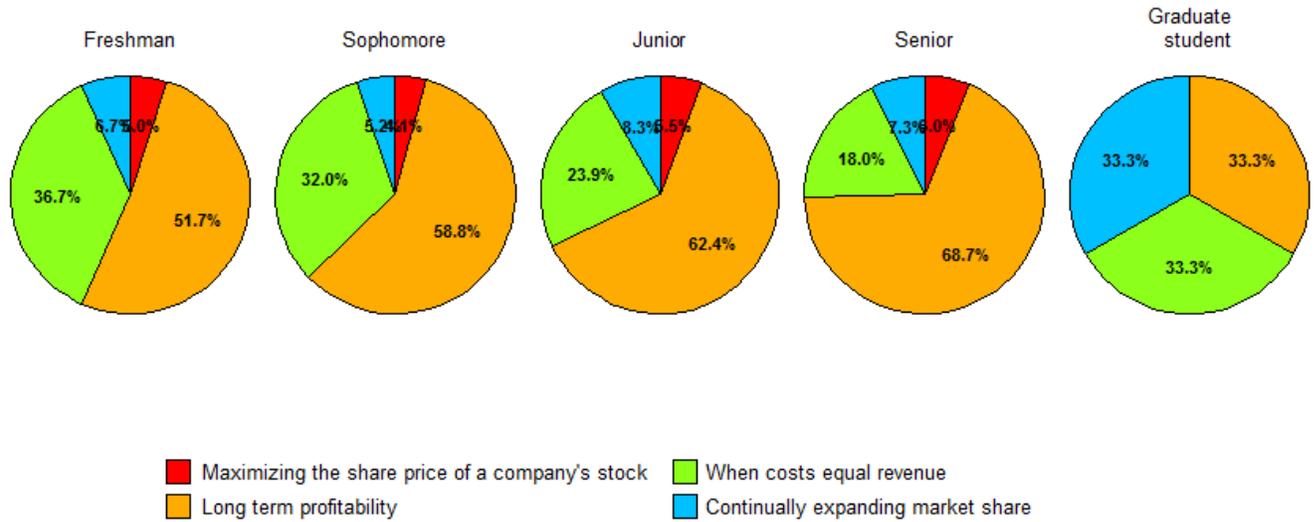


Figure 4. Q 15: Which of the following environmental issues are you most interested in learning more about:

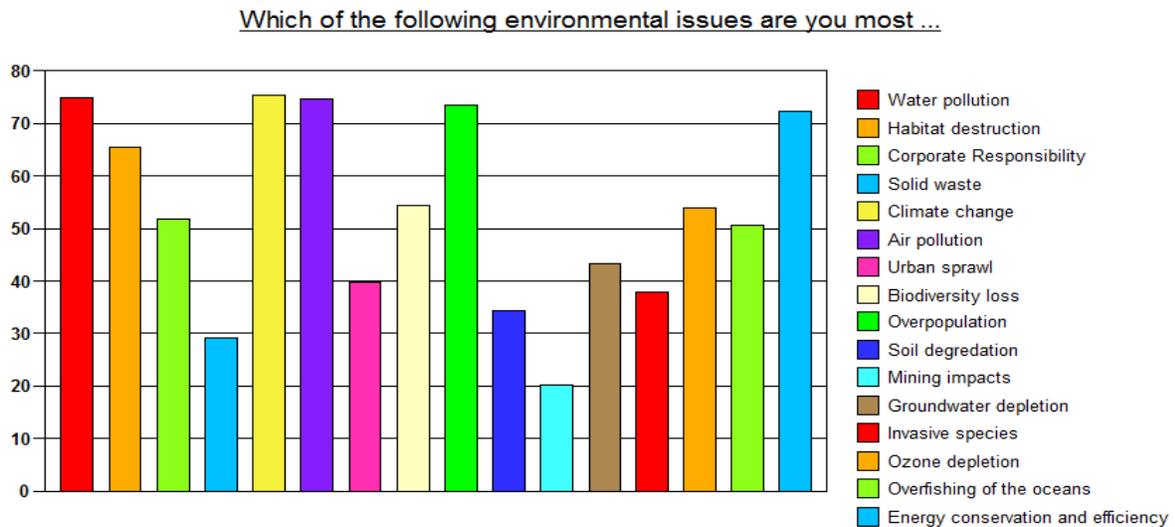


Figure5: Q 18: Which resources would you find most beneficial to help you learn about sustainability?

Which resources would you find most beneficial to help yo...

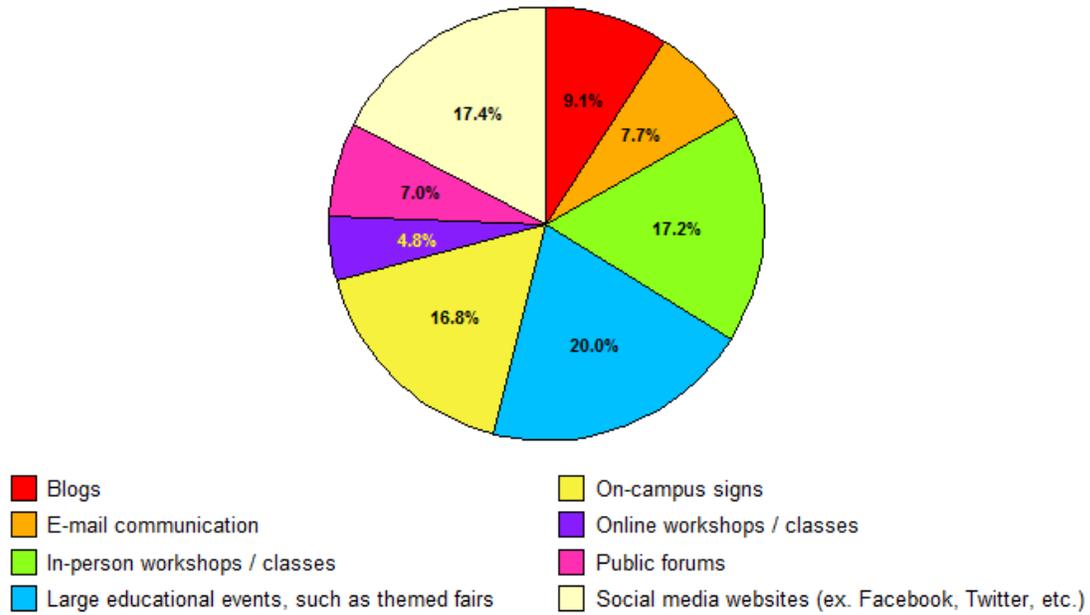


Figure 6. Q 19: Which of the following would you be interested in learning more about?

Which of the following would you be interested in learnin...

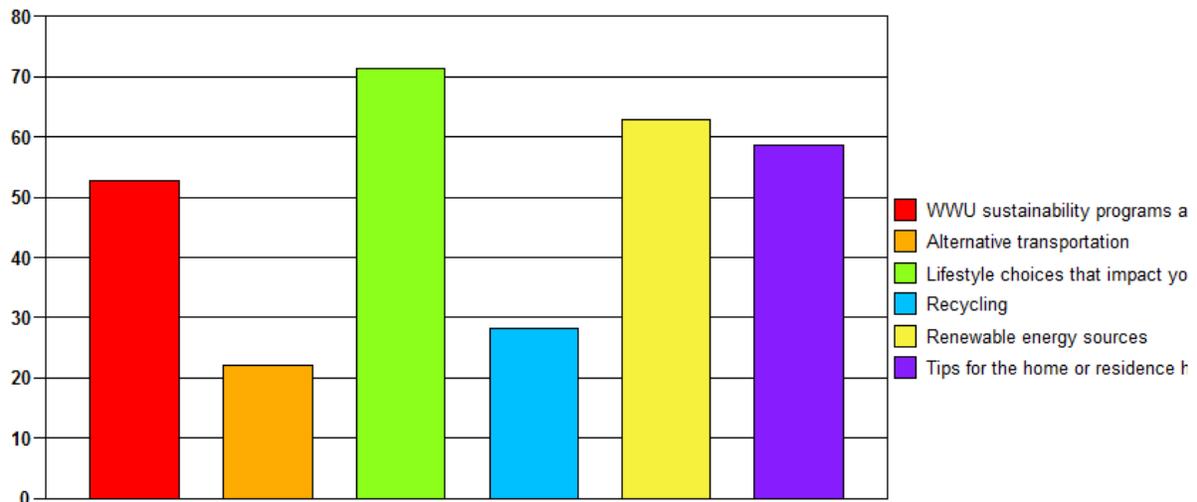


Figure 7. Q 20: Of the following sustainability programs at WWU, mark the ones that you have heard of:

