Comparing Faculty and Student Sustainability Literacy: Are We Fit to Lead?

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Abstract: The importance of teaching sustainability literacy is readily accepted, but relatively little attention has been paid to the adequacy or preparation of faculty to accomplish this task. At Seattle University, samples of incoming students, staff and faculty completed SUSTLIT, a survey of sustainability literacy. The results suggest that faculty, indeed, have better sustainability knowledge, more favorable sustainability attitudes and engage in more pro-sustainability behaviors. Implications for enhancing the faculty teaching of sustainability are briefly presented.

Keywords: sustainability literacy, assessment, sustainability knowledge, sustainability attitudes, survey
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Introduction

Schools around the world, have identified sustainability as an important topic for teaching and research. Dozens of universities now have signed on to the American College and University Presidents’ Climate Commitment, originally published in 2007. The United Nations has declared its “decade of education for sustainable development,” and, dating back to the early years of this century, participants in the 2002 Johannesburg Earth Summit emphatically endorsed the idea that sustainable development should be an integral component of all levels of education. (Reid & Petocz, 2006).

Exactly how this education is happening, who is providing it, and how good a job they are doing has yet to be clearly determined. There is considerable emphasis on teacher training in sustainability concepts, both at primary and secondary levels. To date, however, there is little research evidence on the sustainability literacy of university-level teachers or on their ability to teach sustainability concepts. (Tilbury 2004)

So, the importance of teaching sustainability literacy at all levels is undeniable. But at the university level, at least, we have enthusiastically accepted the responsibility to teach sustainability without much thought about, or assessment of, our ability to do so.

At Seattle University, we developed a survey instrument, SUSTLIT, to assess sustainability literacy (Obermiller and Atwood 2014). The primary motivation was to assess the current levels of literacy among incoming students and to measure progress throughout the college experience. We used the scale for to assess the incoming 2014-2015 class; and, at about the same time, we administered the scale to faculty and staff. In this paper, we present a comparison of the performances of faculty, staff and students as an assessment of the faculty's preparedness to lead students to sustainability literacy.

Assessing Sustainability Literacy

SUSTLIT is a questionnaire that measures knowledge, attitudes, and behavior about sustainability. Sustainability is defined across six dimensions of knowledge: climate change, energy, planetary assets, systems, environmental justice, and organizational influences, plus a set of definition questions. Each of the six knowledge dimensions is assessed with four to eight items. There are also eleven definition questions (more specific knowledge), eleven attitude items, and sixteen behavior measures. (For details of the scale and psychometric analyses of it, see Obermiller and Atwood 2014.)

The forty-nine knowledge items of SUSTLIT are 5-point Likert scales (strongly disagree-strongly agree). Likert scales are appropriate for measuring knowledge when there may not be an objectively clear right or wrong response. Statements on SUSTLIT are worded such that about half reflected correct understanding of sustainability and half incorrect. Attitude was measured with eleven 5-point Likert scales; and behavior was measured with sixteen 5-point scales, anchored by "Never" and "Every Single Opportunity" (along with a "not applicable to me" option). Reported scores were recoded such that higher numbers reflected more correct responses--stronger agreement indicating higher sustainability literacy.

In the following section, we present the results of two applications of SUSTLIT, one to the incoming 2014 class of students, the other to the 2014 Seattle University faculty and staff.
Samples

In August of 2013 Seattle University assessed the sustainability literacy of incoming freshman. The class of 975 new students were invited to complete the SUSTLIT survey on-line. Four months later, all the 700 faculty and staff members were asked to do the same.

From the freshman class, a sample of 196 usable responses were obtained, a response rate of 20%. The sample was a good representation of the current student body in terms of major area of study. Across the seven schools and colleges, the frequency of majors of the incoming freshman class showed no statistically significant difference from the distribution of majors across the current student body ($\chi^2 = 2.89, p=.80$).

The second sample comprised 104 faculty and 232 staff, with a mean age of 41. Sixty-seven percent of the respondents were female. The 104 faculty represented a response rate of 32%; the 232 staff, a response rate of 31%. A comparison of the school of affiliation in the sample with the frequencies of affiliation among the total faculty, across eight schools in the university, indicated no statistically significant difference ($\chi^2 = 10.83, p>.15$). (Affiliations of staff were not analyzed because many staff serve two or more schools.) The samples appear to be fair representations of their populations.

The samples also were sufficiently large to provide good statistical power. For comparisons across the major groups, power=.88 for a difference of .2 scale points and power =.41 for a difference of .1 scale points. Thus, with a certainty level of 95%, we can have high confidence that we could detect even small, true differences, for example, as close as 4.3 vs. 4.1 on a 5-point scale.

Although the samples are excellent in terms statistical power, they may provide biased views of their populations. Because participation was voluntary and the topic of the survey known in advance, we suspect the samples to be biased in favor of sustainability literacy. We have no way of assessing this bias. Because of the large size of the samples relative to their population, we can argue any bias is small; but, we caution, nonetheless, that the results likely over-estimate the sustainability literacy of the students, faculty and staff. Further, we presume the positive bias operated in all three samples.

Results

After reverse-coding the appropriate items, average scores were computed for each of the six knowledge sub-scales, the definitions, attitudes and behaviors. A copy of the complete questionnaire is in the Appendix. The results for students, staff and faculty are presented in Table 1.
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Table 1
Knowledge, Attitude, and Behavior Subscale Means*
2014 Freshmen, Staff and Faculty

<table>
<thead>
<tr>
<th>Sub-scale</th>
<th>Students</th>
<th>Staff</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate Change</td>
<td>3.73</td>
<td>4.02</td>
<td>4.26</td>
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<tr>
<td>Energy</td>
<td>3.41</td>
<td>3.53</td>
<td>3.77</td>
</tr>
<tr>
<td>Planetary Assets</td>
<td>3.80</td>
<td>4.05</td>
<td>4.20</td>
</tr>
<tr>
<td>Systems</td>
<td>4.24</td>
<td>4.48</td>
<td>4.59</td>
</tr>
<tr>
<td>Environmental Justice</td>
<td>4.02</td>
<td>4.45</td>
<td>4.59</td>
</tr>
<tr>
<td>Business</td>
<td>3.93</td>
<td>4.13</td>
<td>4.29</td>
</tr>
<tr>
<td>Definitions</td>
<td>3.41</td>
<td>3.60</td>
<td>3.73</td>
</tr>
<tr>
<td>Attitudes</td>
<td>3.71</td>
<td>3.86</td>
<td>4.26</td>
</tr>
<tr>
<td>Behaviors</td>
<td>2.94</td>
<td>3.01</td>
<td>3.11</td>
</tr>
</tbody>
</table>

*Means are for 1-5 scales; higher numbers indicate more sustainability literacy.

A casual review of the results indicates consistent differences across the groups. Faculty show the highest sustainability literacy and students the lowest, with staff in between, on every single sub-scale. Analyses of variance confirmed that the three groups differed significantly on each dimension (for all variables except Behaviors, F's >22.00, all p's <.01; for Behavior, F=2.59, p=.08. (Behavior measures are complicated by the "not applicable to me" option, which was the response on at least one of the items for 40% of the students and over 50% of faculty-staff. Eliminating those who responded "not applicable to me", the average was computed over the 16 behaviors. The smaller sample sizes contributed to the lower significance level.)

The results for faculty and students were compared directly, using a series of paired t-tests. Not surprising, the faculty out-performed the students on all measures (for all variables except Behaviors, t's >4.71, all p's <.01; for Behavior, t=2.01, p<.05).

The data from the combined samples were analyzed for other category variable differences. Only sex showed a difference and only for the Energy sub-scale; males outscored females 3.79 to 3.53 (t=5.27, p<.01).

To address the friendly rivalry on campus and to assess the effectiveness of those schools that house sustainability-relevant programs, faculty were compared across schools. Analyses of variance showed only two statistically significant differences across groups—energy knowledge (F=2.51, p,.03) and average attitude (F=4.83, p<.01). The school of Arts and Sciences recorded the highest energy knowledge and the school of Business, the most supportive attitude. Although differences across schools were small, we are encouraged that Arts and Sciences and the School of Business house two of the three sustainability-relevant programs on campus.

Discussion

The results are generally encouraging. Faculty at SU demonstrate good sustainability literacy, an average of 4.20 across the seven knowledge dimension 5-point scales. Faculty also showed significantly more sustainability knowledge than incoming students, 4.20 vs. 3.79 on average, and higher on each individual sub-scale. (This was the initial broad application of SUSTLIT to students, but the 3.79 score accords with previous, less representative samples of
students, as reported in Obermiller and Atwood (2014)--3.92 and 3.57.) Faculty also demonstrated more sustainability-supportive attitudes and behaviors. These differences encourage us to believe that incoming students have something to learn about sustainability and that the faculty of the university are equipped to teach it.

Faculty generally scored higher than staff. Although we hope staff scores increase, if the groups are to differ, we should be pleased that faculty showed more sustainability literacy. It is faculty who carry the responsibility of teaching. Nonetheless, it is heartening that SU staff appear to be slightly more literate in sustainability than our incoming students. One might explain the high scores of faculty in terms of education. Both faculty and staff may also be influenced by exposure to the SU mission, which is fundamentally supportive of sustainability.

Much of the sustainability literacy focus on the SU campus focuses on teaching students; but, we do have some programs in place that are aimed at faculty. The Center for Environmental Justice and Sustainability has several programs that enhance faculty teaching of sustainability. The center sponsors or produces several events each quarter on campus that provide information about sustainability. It also produces two or three faculty workshops that focus on how to teach sustainability in the classroom. The center supports faculty research, including developing sustainability pedagogy. Finally, the center continuously promotes sustainability issues in campus media outlets.

One additional force for sustainability literacy is the recent assessment we are doing for STARS certification. In order to identify courses and research that are sustainability relevant or focused, for the past two years we have contacted every faculty member directly with a definition of the term and a request for any courses or scholarship that qualify. Informal conversations with faculty indicate that many people have revised their perceptions of sustainability because of these assessments. Some have changed their courses and research to reflect a new sense of its importance.

Our conclusion is that faculty at Seattle University have at least better sustainability literacy than their incoming students. We do not, of course, know if they use that literacy well. We have no measures of teaching effectiveness. Our plan is to use repeated applications of SUSTLIT to collect data on students as they move through the program. Those results will mark the progress of students and should provide us some evidence on the effectiveness of teaching sustainability. Meanwhile, we are encouraged by what we see. If faculty continue to hear that sustainability is important, they appear to consider that it is important. And, if we provide them with opportunities to learn about and teach it, they appear to take advantage of those opportunities.

We encourage the use of our survey instrument. The data described in this paper were collected with the questionnaire in the Appendix. SUSTLIT, however, is designed to be organic, and small changes have been made in our several administrations. For a digital file of the current form of the survey, feel free to contact us (carlo@seattleu.edu or atwooda@seattleu.edu).
References


Appendix

SUSTLIT Questionnaire

Q76 This is a survey about sustainability issues. We thank you for participating. The results will help us shape our campus activities better to prepare people for the future. Before the scale items, we ask you to answer a few categorization questions.

Q77 Which best characterizes your position at SU?
- faculty
- staff
- student
- other
- not affiliated with SU

Q78 With which group at SU are you most closely affiliated?
- Albers School of Business
- College of Arts and Sciences
- College of Education
- College of Nursing
- College of Science and Engineering
- Matteo Ricci College
- School of Law
- School of Theology and Ministry
- Central Administration
- Library, Facilities, Athletics
- Other, SU
- not affiliated with SU

Q79 What is your age category?
- under 20
- 20's
- 30s
- 40s
- 50s
- 60s
- 70s or above

Q80 What is your sex?
- female
- male
- other

Q1 The following questions address aspects of sustainability. In some cases, there are no clearly correct answers; but, your opinions are important, so, please indicate what you think is the best answer. Your responses will be completely anonymous and used only for purposes of describing the SU community and monitoring knowledge and opinions about sustainability.

Q71 Most scientists believe that climate change is happening.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree
Q6 Human behavior plays a significant part in climate change.
   - Strongly disagree
   - Disagree
   - Neither Agree nor Disagree
   - Agree
   - Strongly Agree

Q7 The lives of many people living near the Pacific Ocean are threatened by the melting of glaciers in Greenland.
   - Strongly disagree
   - Disagree
   - Neither Agree nor Disagree
   - Agree
   - Strongly Agree

Q8 Climate and Weather mean pretty much the same thing.
   - Strongly disagree
   - Disagree
   - Neither Agree nor Disagree
   - Agree
   - Strongly Agree

Q9 The fact that we cannot predict climate accurately, even a few years into the future, proves that we do not understand what factors influence climate.
   - Strongly disagree
   - Disagree
   - Neither Agree nor Disagree
   - Agree
   - Strongly Agree

Q10 Recent mild winters prove that climate change is not happening.
   - Strongly disagree
   - Disagree
   - Neither Agree nor Disagree
   - Agree
   - Strongly Agree

Q11 Change in atmospheric carbon dioxide over the past 100 years has been a slow steady increase.
   - Strongly disagree
   - Disagree
   - Neither Agree nor Disagree
   - Agree
   - Strongly Agree

Q12 Climate change is a threat to humans and to the natural environment.
   - Strongly disagree
   - Disagree
   - Neither Agree nor Disagree
   - Agree
   - Strongly Agree
Q12 Increasing the use of wind turbines could eliminate our dependence on foreign oil within a few years.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q13 Water (hydroelectric) is considered a "renewable" energy source.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q14 Coal is considered a "renewable" energy source.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q15 The largest use of energy per year in a typical US home is lighting.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q16 A typical home refrigerator requires more energy per year than a typical desktop personal computer.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q17 Most electricity in the US is produced by burning coal.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q18 The origin of all fossil fuels is the decomposition of dinosaur bones.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q40 Wind energy is theoretically possible but not a practical source of renewable energy.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree
Q19 The major cause of coral bleaching--the death of coral reefs--is chemical spills in the oceans.
   ○ Strongly disagree
   ○ Disagree
   ○ Neither Agree nor Disagree
   ○ Agree
   ○ Strongly Agree

Q20 There is no need to conserve water because water is constantly being replenished by the earth's natural water cycles.
   ○ Strongly disagree
   ○ Disagree
   ○ Neither Agree nor Disagree
   ○ Agree
   ○ Strongly Agree

Q21 Fewer people in the world have access to clean water than have access to cell phones.
   ○ Strongly disagree
   ○ Disagree
   ○ Neither Agree nor Disagree
   ○ Agree
   ○ Strongly Agree

Q22 Switching from meat to vegetable meals in the U. S. can make more clean fresh water available to people in developing countries.
   ○ Strongly disagree
   ○ Disagree
   ○ Neither Agree nor Disagree
   ○ Agree
   ○ Strongly Agree

Q23 The amount of high quality, fertile land for growing food products, worldwide, is constantly decreasing.
   ○ Strongly disagree
   ○ Disagree
   ○ Neither Agree nor Disagree
   ○ Agree
   ○ Strongly Agree

Q24 It is important to preserve plants and animals that are threatened by extinction.
   ○ Strongly disagree
   ○ Disagree
   ○ Neither Agree nor Disagree
   ○ Agree
   ○ Strongly Agree

Q25 The earth, plants, and animals exist only for the support of humans.
   ○ Strongly disagree
   ○ Disagree
   ○ Neither Agree nor Disagree
   ○ Agree
   ○ Strongly Agree
Q41 Soil erosion peaked during the Dust Bowl (1930s); in today's world, it is no longer a problem.
○ Strongly disagree
○ Disagree
○ Neither Agree nor Disagree
○ Agree
○ Strongly Agree

Q26 We will always have enough resources. When something runs out, we find it somewhere else or find something else that works just as well.
○ Strongly disagree
○ Disagree
○ Neither Agree nor Disagree
○ Agree
○ Strongly Agree

Q27 What we do today affects the lifestyles of future generations.
○ Strongly disagree
○ Disagree
○ Neither Agree nor Disagree
○ Agree
○ Strongly Agree

Q28 My responsibility is to myself and my family, not to the world or to the future.
○ Strongly disagree
○ Disagree
○ Neither Agree nor Disagree
○ Agree
○ Strongly Agree

Q29 The best way to deal with waste is to seal it away so that it cannot affect us.
○ Strongly disagree
○ Disagree
○ Neither Agree nor Disagree
○ Agree
○ Strongly Agree

Q30 The best measure of the quality of life for an individual is material wealth.
○ Strongly disagree
○ Disagree
○ Neither Agree nor Disagree
○ Agree
○ Strongly Agree

Q31 The best measure of the quality of life for a society is gross national product.
○ Strongly disagree
○ Disagree
○ Neither Agree nor Disagree
○ Agree
○ Strongly Agree

Q32 Abuses of the environment disproportionately diminish the lives of the poor.
○ Strongly disagree
○ Disagree
○ Neither Agree nor Disagree
○ Agree
○ Strongly Agree
Q33 My decisions and actions affect me and those close to me, not other people or places around the globe.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q34 Businesses should be concerned not only with making profits but also with the welfare of their employees and the communities in which they operate.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q35 Businesses must be profitable to survive.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q36 The only proper objective of business is to maximize its profits.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q37 Businesses should pay their employees and their suppliers fair compensation, even if that is more than the market requires.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q39 Businesses have an obligation to make positive contributions to society.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q42 I am willing to pay more for products from businesses that are socially responsible.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree
Q44 On foods, the label "organic" means the food is not genetically modified.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q45 On meats, the label "free range" means the animal had access to the outdoors.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q46 On meats, the label "grass fed" means the animal had some grass in its diet.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q47 On coffee or other products, the label "Fair Trade" means the products are extra high quality.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q48 On appliances, the label "Energy Star" means the products are made of recycled materials.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q49 On products, the label "natural" has no legal meaning.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q50 On products, the label "recyclable" means that the material in the product will be used to make more of the same product.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q51 On products, the label "made of recycled material" means that the product is of low quality.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree
Q52 A "carbon tax" would prevent the manufacture or sale of products that add carbon to the atmosphere.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q53 A "cap and trade" policy for carbon would set a limit on the total amount of carbon added to the atmosphere.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q54 A business practices "triple bottom line" planning when it focuses on unit sales, dollar sales, and market share.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree
Q55 Think about your own behaviors over the past year. Please check one column below to describe yourself:

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Every single opportunity</th>
<th>Not applicable to me</th>
</tr>
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<tr>
<td>When you buy produce, you buy organic produce</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>When you buy coffee or tea, you buy shade grown coffee or tea</td>
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<td>○</td>
</tr>
<tr>
<td>When you buy seafood, you buy seafood certified as sustainable</td>
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<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>When you buy seafood, you buy farm-raised seafood</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>When you buy eggs, you buy organic eggs</td>
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<tr>
<td>When you buy dairy products, you buy organic dairy products</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>When you buy meat, you buy organic meat</td>
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<td>○</td>
<td>○</td>
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<td>○</td>
<td>○</td>
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<tr>
<td>When you buy beef, you buy grass-fed beef</td>
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<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>When you buy paper products, you buy recycled-content paper products</td>
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<td>○</td>
<td>○</td>
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<tr>
<td>Choose mass transit as a means of local travel</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Use car/van</td>
<td>○</td>
<td>○</td>
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</table>
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<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<td>pool for travel to work or school</td>
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<td>○</td>
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<td>Choose bicycling for local travel</td>
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<td>Choose walking for local travel</td>
<td>○</td>
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<tr>
<td>Consider the working conditions of product producers, before buying</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Boycotted a company because of its social practices</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Voted for or supported a candidate because of his/her position on environmental positions.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q56 People should recycle and reuse, even if it is less convenient.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q57 People should choose a method of transportation other than driving a car alone, even if it is less convenient.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q58 People should be willing to lower the quality of their lives in order that other people in the world can live better.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree
Q59 People should be willing to spend more to get products and services that are better for the environment.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q60 People should be willing to spend more to get products and services, if that is what it takes to make life better for people who have been disadvantaged by environmental change.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q61 People should support higher taxes, if that is what it takes to make life better for people who have been disadvantaged by environmental change.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q62 In general, I think climate change issues are among the most important challenges in the world today.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q64 In general, I think energy issues are among the most important challenges in the world today.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q65 In general, I think environmental threats are among the most important challenges in the world today.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q66 In general, I think social justice issues are among the most important challenges in the world today.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree
Q67 In general, I think the effects of businesses on society are among the most important challenges in the world today.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q68 In general, I think I know everything I need to know about sustainability.
- Strongly disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree

Q83 Could you please briefly respond to the question: What most gives you concern for the environment?

Q84 Could you please briefly respond to the question: What most gives you hope for the environment?

Q74 To enter the drawing for a gift certificate prize, we need your e-mail address. These addresses will be used only to determine the prize winners and will NOT be included in the data set. Please type your e-mail address in the box below.

Q73 Thank you very much for your participation.