Worcester Polytechnic Institute

May 23, 2017

Summary of Student results from the administration of the WPI Sustainability Literacy Survey

The following represents a summary of salient aspects of the student responses from the initial administration of the literacy survey. The survey was administered to faculty and staff as well as students to obtain comparative data. Only the student results are reported here. Additional analysis is underway to provide guidance for program development and to prepare for future survey administrations.

Populations surveyed:

- Graduate students
- Faculty and staff who subscribe to a general interest WPI email group titled "potpourri"
- Students who have expressed an interest in sustainability

Numbers of respondents:

- Total: 253
- Undergraduates: 66
- Graduate Students: 71
- Faculty: 29
- Staff: 87

The remainder of this report refers to data only from the 137 student respondents.

Length of time at WPI:

- Less than 1 year: 27
- 1 -2 years: 39
- 2 -3 years: 14
- 3 -4 years 4137
- More than 4 years: 20

Understanding of the definitions of sustainability

The understanding of what is and is not included in the scope of the concept of "sustainability" is relatively low. While 98% of the respondents correctly identified "environmental stewardship" as a component of sustainability, only 56% and 82% respectively, identified "social justice" and "economic security" as components. Substantial numbers of respondents, 42% and 60% respectively, incorrectly indicated that "Gross National Product" and "Political System" are aspects of sustainability. However, 85% of the respondents correctly identified the definition of sustainable development as "Meeting the needs of the present without compromising the needs of future generations."

Basic knowledge regarding aspects of sustainability

Most (78%) correctly identified coal as the greatest emitter of CO_2 among the choices of coal, oil, and natural gas, and a larger percentage (93%) correctly identified natural gas as emitting the least CO_2 per unit of energy. However, knowledge regarding the social justice and economic security aspects of sustainability is much lower, with only 30% of respondents correctly identifying that the percentage of the earth's population living in extreme poverty has been **declining**. Regarding the topic of the cause of climate change, the WPI community overwhelmingly agrees that human activity is almost completely (49%) or substantially (44%) responsible. The large majority of the respondents are aware that all of the listed activities contribute to a person's carbon footprint. Ninety-two percent agree that fossil-fuel generated electricity contributes, as do 95% for driving a gasoline fueled car, and 78% for eating a meat-based diet.

Knowledge of campus sustainability aspects

Regarding campus recycling, knowledge is high regarding the common items such as paper (90% responding yes) and plastic water bottles (94% responding yes), but only 59% of the respondents know that batteries can be recycled on campus. Also, 20% incorrectly believe that Styrofoam cups can be recycled. Regarding re-usable containers, only 28% of the respondents are aware that a discount is available for use of a reusable coffee container at the Dunkin Donuts outlet. However, 69% are aware of the reusable takeout container program at the Campus Center food court.

Conclusions

Additional analysis is underway, but preliminary conclusions include the following:

- Overall student understanding of the environmental aspects of sustainability is high, but the understanding of the social aspects is rather low.
- In general, the students support and agree with the scientific consensus regarding climate change.
- Education is needed regarding the availability of recycling and other sustainability initiatives on campus.
- More can be done to communicate the significance of the social aspects of sustainability. Many aspects are already integral to our educational mission. But more effective communication is needed.