

Sustainable Communities Field School: Innovative Environmental Education for Businesses

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INTRODUCTION

Mobilizing businesses to be active participants in developing sustainable communities requires collaborative, inclusive and innovative ways of engagement. 'The Sustainable Communities Field School' is a new three year educational program designed to engage employees of local businesses and community organizations in learning about sustainability. Based at the University Of British Columbia Botanical Garden (UBC-BG) in Vancouver, Canada, the program addresses a variety of topics including forest and biodiversity conservation, sustainable food systems, waste reduction and water management. Through innovative hands-on programming, the field school seeks to increase the number of companies actively engaged in greening their operations, with the aim that employees integrate sustainable best practices into their daily lives. As environmental educators and researchers we want to understand how to support citizens to create sustainable communities.

Community partnerships are integral to the program. Our curriculum is being developed in collaboration with two other Vancouver-based groups: the Society Promoting Environmental Conservation (SPEC) will help create and facilitate engaging programs; and the UBC Department of Psychology in conjunction with the Institute for Resources, Environment and Sustainability (IRES), will monitor and measure the outcomes of the education program. The design of the first year of the program will be flexible in order to meet the specific needs of individual organizations, to identify topics of interest, and to develop appropriate tools.

With both aesthetic and educational resources, UBC botanical garden offers a unique Pacific Northwest outdoor experience for people of all ages. Sitting on the bluffs above the Salish Sea (Georgia Strait), UBC botanical garden safeguards a spectacular collection of more than 50,000 plants representing over 7000 taxa in its 35 hectares (86 acres). Most of the programming for the field school will take place at UBC botanical garden; however, programs may occur at client workplaces or at other off-site locations that highlight some aspect of sustainability (e.g., a solar panel operation, local watersheds, etc.).

The psychology team will use a "community-based research" model, bringing in local stakeholders to assist with academic research. Led by Dr. Jiaying Zhao from UBC Psychology and IRES, the team will develop methods for testing and analyzing data collected from the participants in our programs. Among other things, surveys will be distributed to Field School participants before and after their visit to measure the effect the experience had on their attitudes and behavior. The team will do follow-up interviews with participants to gauge changes in behaviors over the longer-term. Given the lack of empirical evaluation of sustainability education in literature, we aim to provide rigorous scientific evidence of our Field School on promoting behavioral change towards sustainability.

Initial funding for the Field School extends until 2018. During that period we expect to pass 1000 individuals from 20 organizations through the school. Information derived from this work will be used to create a best

practices database available for any business or organization interested in improving sustainable practices for their staff and operations. The results of the research on educational delivery methods and their effects will be published in peer-reviewed journals. The hope is that the ‘Sustainable Communities Field School’ will provide an excellent social enterprise business model for other non-profits and botanic gardens looking to create similar sustainability ventures.

THE PROGRAM

In the pilot year, programming is focused on five areas: forests, food, waste, water and biodiversity. A typical 3-hour botanical garden tour starts in the David C. Lam Asian Garden, and from there, participants walk to the Food Garden to learn about growing vegetables, soil recycling and pollination. Stopping to observe honey bee hives, participants explore pollination and the value of bee colonies. Programs will vary from 1-6 hours in duration depending upon the type of tours selected.

The programming moves from the food garden to the Greenheart Canopy Walkway, a 308-metre aerial trail system perched in the canopy of the David C. Lam Asian Garden rainforest. Along the way, participants learn how First Nations people traditionally managed Garry Oak ecosystems to grow nuts, berries and root vegetables such as camas. They also learn about the roles of forests in biodiversity and water availability.

WHAT IS A FIELD SCHOOL?

Field schools are schools without walls. They are outdoor places where people learn about issues that relate in practical ways to their daily lives in a hands-on, interactive and fun environment. The idea of a “field school” is borrowed from the United Nations Food and Agriculture Association (UN-FAO 2015). First developed in South East Asia in the early 1990’s, UN-FAO Farmer Field Schools have been shown to reduce pesticide use by convening and training farmers in integrated pest management techniques (Settle *et al* 2014). The programming varies across continents and communities, but is based on helping farmers become self-confident enough to take action to deal with challenges and obstacles that impact their farming livelihoods.

Locally, the concept of a field school was further developed by Dr. Tara Moreau, who, in 2010, as part of her postdoctoral research with the Pacific Institute for Climate Solutions, designed and launched the SPEC Urban Farmer Field School in Vancouver (SPEC 2015). Now in its 4th year, UFFS focuses on education around urban agriculture, food systems and climate change.

The Sustainable Communities Field School is the first attempt to extend this education model into the boardroom to engage companies and employees.

WHY BUSINESSES AND COMMUNITY ORGANIZATIONS?

Businesses and community organizations form the backbone of our communities. With entrepreneurial resources and human capital, it is businesses and organizations that will help drive the shift to a greener economy. In British Columbia, the City of Vancouver is at the forefront of sustainability, launching the Greenest City Action Plan in 2011. Under the plan’s “Green Economy Targets,” the City has set a goal to double the number of companies in the city actively engaged in greening their operations. The Field School team is exploring how to collaborate and assist local businesses to help reach this target.

There is a benefit to being at the forefront of this movement. Vancouver – like many major cities – is already going through a transition. Vancouver’s green economy is growing twice as fast as traditional sectors (City of Vancouver 2015). Through our programming and workshops, the Field School will work to harness the

productive spirit of companies and organizations to continue propelling this shift – a shift that, we believe, fits well with the UN’s Sustainable Development Goals, which aim to make cities more “inclusive, safe, resilient and sustainable” (UN-Sustainable Development 2015).

BGCI SESSION SUMMARY

The session called Innovative Public Garden Engagement Activities was well attended, with an audience of ca. 45 people. Dr. Moreau was the first presenter of the session and a diverse range of questions were asked related to the target audience of the Field School, sustainability topics covered in the curriculum, and the funding model used. There was a strong interest in the intersection between environmental and agricultural education. Several questions also inquired as to how botanic gardens can better measure and monitor how education is changing behaviours. In the months and years ahead, the Sustainable Communities Field School will continue seeking answers.

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