PLANNING LEARNING COMMUNITIES -
HIGHER EDUCATION AND THE TRANSITION TO SUSTAINABILITY

by

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE (PLANNING)
in
THE FACULTY OF GRADUATE STUDIES
School of Community and Regional Planning

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA
March 2003
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Date March 19, 2003
ABSTRACT

Rethinking our organizational learning processes is critical to society’s transition to sustainability – a transition from excess success to living respectfully with one another on a planet with finite resources. This thesis promotes the concept of sustainability as a central organizing focus for higher education and draws on theories of organizational learning to help inform the transition. Specifically, the central case study focuses on the University of British Columbia (UBC), Canada’s first university to adopt a sustainable development policy and explores how well the policy is implemented in practice. Probing beyond the University’s espoused theory in relation to the Policy, to the theory in use, the thesis discusses the barriers to effective implementation, and provides insights into why the University operates as a “knowledge institution” rather than a “learning institution”. An embedded case study examines the learning experience of the Faculty of Agricultural Sciences at UBC based on the recent transformation of its core curriculum to incorporate sustainability principles.

Weaving together principles of sustainability, citizenship education and organizational learning, a vision of sustainable citizenship education guides the discussion. The thesis offers design insights for learning communities which translate the vision into practice, and outlines a series of next steps for the institution. The insertion of vignettes throughout the thesis emphasizes the value of reflection in learning - a crossroads in the research between my learning and the institution’s learning.
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ACKNOWLEDGEMENTS

For their insights, guidance and encouragement, warmest thanks to Leonie Sandercock, Brian Sullivan, David Orr, the staff at Schumacher College, Anne Phillips, Rajni Bakshi, David Wolfenstein, Moura Quayle, Jill Condra, Alejandro Rojas, Cheryl Gudz; and to my family and friends for their continuous support. A special thank you to all who participated in the research.

This thesis is dedicated to past, present and future generations of the UBC community.
1) OVERVIEW AND SUMMARY

Don’t want to wait until tomorrow
Why put it off another day?
Turn this thing around
Right now
It’s your tomorrow...
It means everything (Van Halen)

It would be an understatement to report that on a global scale, both rural and urban places are increasingly polluted, over-exploited, and destitute. In a world of unprecedented change, we appear to be hard-wired to react to crises with little regard or know-how for planning in the long term. In the dominant western culture of quick-fixes, too often yesterday’s solutions become today’s problems, just like today’s solutions will constitute tomorrow’s problems. As participants in what’s been described as a “knowledge-based economy”, we might question the kind of knowledge currently being cultivated in society’s knowledge-producing institutions, and what kind of knowledge is needed.

[W]here in the most critical and fateful period of human history, does one find the prestigious and well-endowed institutions of higher education? The short answer is that most have yet to summon the wherewithal and energy to do very much. Relative to the transition to sustainability, institutions of higher education are underachievers. On balance, then, it is unclear whether higher education will be a positive or negative factor in the transition ahead. (Orr, 2002: 80)

The concept of sustainable development and a sustainable way of life has become a new, powerful organizing idea like freedom or democracy (Rockefeller, 2002). Sustainability is just as much about how we interact with one another as citizens as we interact with Earth. It represents a journey, not a destination; a yardstick for the long term human prospect. It is not about business as usual. Both technological issues and issues of social process require serious attention, yet to date, considerably more emphasis has been placed on the former. Rethinking our organizational learning processes is critical to society’s transition to sustainability – a transition from excess success to living
respectfully with one another on a planet with finite resources. More specifically, this thesis promotes the concept of sustainability as a central organizing focus for higher education.

The urgency of moving into the new situation would not be so great if the devastation of the planet were not so overwhelming...While our universities have gone through many transitions since they first came into being in the medieval period, they have never experienced anything like the transition that is being asked of them just now...We have not thought clearly or behaved properly in the twentieth century. We are now caught in a mind-tormenting ambivalence...While this is not the time for continued denial by the universities or for attributing blame to the universities, it is the time for universities to rethink themselves and what they are doing. (Berry, 1999: 84-85)

As public institutions of higher education, Canadian universities have both the opportunity and the obligation to consider the types of institutional arrangements and plans that will best reflect a commitment to building a sustainable future, and cultivate in graduates the knowledge and skills required to live sustainably on the Earth. Rethinking institutional learning processes and developing the capacities for, as Orr (2002) describes “learning relative to a larger standard of human and ecological health” will be critical in this endeavour.

The concept of sustainability presents “an opportunity to debate what kinds of communities we want to create and get on with the job of building them. What better educational opportunity could there be?” (Orr, 2002: 31)

Since colleges and universities are an integral part of the global economy and since they prepare most of the professionals who develop, manage and teach in society’s public, private and non-governmental institutions, they are uniquely positioned to influence the direction we choose to take as a society. As major contributors to the values, health and well being of society, higher education has a fundamental responsibility to teach, train and do research for sustainability. (University Leaders for a Sustainable Future, 2001)

Our universities are being asked to address the complex social, economic, ecological and cultural needs of our communities, yet it can be argued that “[t]he institutions that claim the position of the premier and most advanced knowledge producers in society frustrate learning and social change in most of their internal processes and their articulation with the surrounding society” (Levin et al., 2001: 103). Universities and colleges have become the preeminent “knowing institutions” in a world
that increasingly favours “learning institutions” (Senge, 2000). Can institutions that purport to advance learning, learn to recalibrate their mission and operations with global sustainability in mind?

### 1.1 Introduction

In this thesis I explore the pedagogical and institutional implications for sustainable citizenship education, based on the argument that sustainability, citizenship and organizational learning are closely linked. At the heart of a learning organization is a shift of mind from seeing ourselves as separate from the world to connected to the world, from seeing problems as caused by someone or something out there, to seeing how our own actions create the problems we experience (Senge, 1990). The transition to becoming a learning organization presents many challenges for the academy. Traditional discipline and department centered approaches will not work under such a concept, nor can colleges and universities remain isolated from the communities that support them.

Specifically, I focus on the University of British Columbia (UBC), Canada’s first university to implement a sustainable development policy and the institutional process of moving from policy to action. How, and how well, is UBC’s Sustainable Development Policy being put into practice? In the language of Argyris and Schon, to what extent is the institution’s “theory in use” in line with its “espoused theory”? Under the rubric of sustainability, what are the critical organizational learning capacities, where learning is defined relative to enhancing the well being of people and the planet? What would a theory of action look like? The answers we explore will not be exhaustive; they are only beginnings.

Real organizational learning is not just a matter of reconfiguring the organization to do more efficiently and happily what should not be done in the first place. It is a deeper and

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1 UBC Campus Sustainability Office Annual Report – Progress Toward a Sustainable Campus, May 2002.
more honest process of seeing patterns that connect what people in organizations do to and for people and their prospects elsewhere. (Orr, 2003)

I spent several months in the past year interviewing individuals who hold leadership roles at UBC to uncover some of the perceptions that exist among university leaders regarding the sustainable development policy and its level of implementation. I also spent some time working with the Faculty of Agricultural Sciences, which has proceeded relatively aggressively to affect change within the Faculty under the direction of a new Dean. The story of a small Faculty that has worked to transform its core curriculum around sustainability principles, combined with the views and perceptions of university leadership on the institution's commitment to sustainability, raise some questions about the institution's transition from a "knowing organization" to a "learning organization" (Senge, 2000).

1.2 Methodology/Research Design

The thesis is designed around two learning experiments at UBC with the caveat that they were not initiated with any intention to be learning experiments. The first is a case study in organizational learning based on the implementation process of the Sustainable Development Policy at the University of British Columbia. Within this larger study exists an embedded case study that explores how sustainability has served a central focus in the transformation process of the Faculty of Agricultural Sciences and its core curriculum in the last five years.

1.21 Case Study: Implementing Policy No. 5 – An Unplanned Learning Experiment

How can the large modern university put a sustainability education model into practice? Can institutions of higher education learn? This case study specifically explores UBC's experience as Canada's first university to implement a sustainable development policy: Policy No. 5 (see
Appendix V). As UBC claims to be Canada’s leader in campus sustainability\(^2\), the principal study question is: ‘How, and how well, is UBC’s Sustainable Development Policy, being put into practice?’ In other words, how well does the institution’s theory in use reflect its espoused theory? The unit of analysis is the policy implementation process; and of particular interest is the pedagogical impact of the policy as well as its implications for on- and off-campus community engagement.

My intention was to engage members of the campus community in a conversation about the role of Policy No. 5 and UBC’s commitment to sustainability. From March – August 2002, I reviewed primary and secondary documents and conducted in-depth, semi-structured interviews with 13 individuals who hold leadership roles on campus to uncover some of the perceptions that exist among university leaders regarding Policy No. 5 and its level of implementation. I also wanted to learn the background behind the creation of the Policy from some of its key contributors. Interviewees ranged from students, faculty members, and university administration, to a member of the Board of Governors and the President of the University. (See Appendix I for a complete participant list and interview questions.) Participants were first selected for their direct involvement in campus sustainability issues, and others followed by referral and through the use of snowballing techniques\(^3\).

Some of the interview questions were inspired by a speech that UBC President, Dr. Martha Piper had delivered at the first Sustainability Circle event hosted by the Campus Sustainability Office in September 2001. In her speech, Dr. Piper discussed the University’s commitment to sustainability, which provided the platform for discussion during the interviews, including definition issues and the institutional shifts required for the University to practice its commitment.

\(^2\) Ibid.

\(^3\) Snowballing techniques for selecting interview participants involves the action of one participant referring the researcher to another, who in turn refers the researcher to another participant, and so forth.
to sustainability and graduate “sustainability leaders”. I also asked participants to describe their personal definitions of sustainability.

Charged with overseeing the implementation of Policy No. 5, the Campus Sustainability Office has done a lot of great work within the physical operations of the University. They have been a champion of several waste reduction and recycling programs, energy efficiency initiatives and green building design. Of course these types of activities offer the most measurable outcomes; and quantifiable results, such as dollars saved, can easily demonstrate progress. Before embarking on my research, I met with the Director of the Campus Sustainability Office (CSO), Dr. Freda Pagani, as well as with Brian Sullivan⁴, Vice President Students, to find out from an administrative point of view, how my research could be useful to the institution. They both suggested that it would be helpful to have a set of sustainability indicators to measure progress in less tangible areas such as curriculum and community engagement. In response, I asked participants to share their views on how well the institution’s commitment to sustainability is being put into practice in the areas of curriculum and community engagement. Since Policy No. 5 is intended to encompass all activities of the University, I also asked participants to describe the role of the Sustainable Development Policy at the University from their perspective. In other words, as university leaders, how did they perceive the policy, how familiar were they with it and did it have an impact in their respective departments? Given the increasing emphasis on internationalization at the University and the recent interest in instituting an international requirement for all undergraduate students, I asked participants if they felt there should also be a sustainability requirement.

In order to gain an understanding of how the University is perceived as an organization in relation to sustainability, I asked participants to draw upon their personal experiences working or studying at UBC, as well as experiences in other organizations, and share their thoughts on

⁴ Brian Sullivan is the second reader on my thesis committee.
organizational change. Referring to recent literature on the role of higher education and the threats of corporatization, I also asked participants if they felt the University is a business and in which areas of the University, if any, is it credible to practice a business approach. Participants were also asked whether a corporate presence on campus is at odds with practicing a commitment to sustainability. Overall, the interviews were designed as an opportunity for participants to reflect upon their leadership roles at the University and how promoting the institution’s commitment to sustainability fit into those roles.

1. 22 Sub-case study: Towards a Transformed Faculty

The research design also includes an embedded case study on the Faculty of Agricultural Sciences (FAS) at UBC - an examination of the Faculty’s recent transformation process under the direction of a new Dean who was appointed in 1997. Another unplanned learning experiment, the sub-unit of analysis is the design and implementation process of the Faculty’s new Land, Food and Community (LFC) core curriculum grounded in sustainability principles. In particular, I was interested in learning about the design process from the perspective of staff and faculty and the curricular outcomes of the transition to date from the perspective of students. I selected the FAS for its relatively aggressive efforts to act on the academic elements of the Sustainable Development Policy. The idea to examine the experience of the FAS and the LFC series as a sub-case study was first proposed by the Dean, Moura Quayle, who expressed an interest in learning more about the impact of the LFC series on students and its level of effectiveness.

From January – May 2002, I served as a participant observer in my role as Teaching Assistant in the first offering of the last course in the LFC series, AGSC 450. I also carried out one group interview with seven members of the LFC teaching team (faculty members and graduate students),
three individual interviews (Dean, Associate Dean and Chair, Curriculum Implementation Team), student questionnaires, reviewed primary documents, and produced a video.

It is clear from course syllabi and other faculty publications\(^5\) that sustainability is a central focus in the LFC series and I was interested in finding out how sustainability principles were reflected in the change process. I wanted to capture the experiences of those faculty and staff members involved in the design of the series, the challenges and rewards they faced and the visions they carried. In a sense, I would learn about the faculty's espoused theory and explore the extent to which it matched its theory in use according to the outcomes of my work with the first graduating class of the LFC series.

The students who I worked with in AGSC 450 had essentially been the "guinea pigs" of the series, the first group to participate in these courses. In order to learn what the first graduating class of the series had gained from their experience in the transformed faculty, I arranged to facilitate an opportunity at the end of the course for self-reflection and learning assessment. Students would draw upon their experience in the series and share any advice to incoming students. Participation was optional, though the activity took place during class time, and the students were asked to videotape their reflections in pre-existing groups. Following an earlier brainstorming session with both course instructors, Alejandro Rojas and Jill Condra, it was decided that the videotaped messages would later be shared with the next generation of LFC students beginning the series the following year. Since participation was optional, and given that the session was held on the last day of class, not everyone participated. From a total of 115 students, approximately 60 students participated in the session. The reflections of 10 groups (out of an existing 17) composed of five to seven students each were filmed and 25 questionnaires were completed and returned. Two weeks prior to the video activity/reflection session, I had the opportunity to introduce the case study to

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\(^5\) Faculty publications include the 1997 Action Plan, web-site and program brochures.
the class, provide some background on my thesis, describe the research methods, field any questions and distribute the questionnaires. Though time was allocated during the last class to complete the questionnaires, students were encouraged to reflect on the questions during the two-week gap, which would also prepare them for the video activity. In addition, students were encouraged to bring a theme song to the final class to be used in their group videos; the theme was “a sustainable campus”. Lyrics from some of the selected songs are included throughout the thesis at the beginning of each chapter. Please refer to Appendix II for a list of interview questions, complete participant list, video questions, list of selected theme songs and questionnaire.

1.23 The Power of Case Studies

I selected the case study approach for its ability to provide a holistic view of a process as opposed to a reductionist study of small, well-defined parts (Gummesson, 2000). In Making Social Science Matter, author Bent Flyvbjerg (2001) discusses the misunderstandings that exist about the case study approach, including ones based on the view that general theoretical (context-independent) knowledge arising from quantitative research methods is more valuable than concrete, qualitative, practical (context-dependent) knowledge. Drawing on the phenomenology of human learning, he argues that “the case study produces precisely the type of context-dependent knowledge which makes it possible to move from lower to higher levels in the learning process” (71). He further states that “in the study of human affairs, there exists only context dependent knowledge.”

In dealing with other misunderstandings about case studies, Flyvbjerg offers five points that emphasize the power of the case study method (73-86):

1. Predictive theories and universals cannot be found in the study of human affairs. Concrete, context-dependent knowledge is therefore more valuable than the vain search for predictive theories and universals.
2. One can often generalize on the basis of a single case, and the case study may be central to scientific development via generalization as a supplement or alternative to other methods. But formal generalization is overvalued as a source of scientific development, whereas "the power of good example" is underestimated.

3. The case study is useful for both generating and testing of the hypothesis but is not limited to these research activities alone.

4. The case study contains no greater bias toward verification of the researcher's preconceived notions than other methods of inquiry. On the contrary, experience indicates that the case study contains a greater bias toward falsification of preconceived notions than toward verification.

5. It is correct that summarizing case studies is often difficult, especially as concerns process. It is less correct as regards outcomes. The problems in summarizing case studies, however, are due more often to the properties of the reality studied than to the case study as a research method. Often it is not desirable to summarize and generalize case studies. Good studies should be read in their entirety.

Though the case studies examined in this thesis may not be generalizable to other campuses, I will proceed to generalize the research findings to theory (Yin, 1984). In other words, I will examine the broader issues of organizational learning, but focus on the experiences at UBC regarding the implementation of Policy No. 5 and the transformation of the Faculty of Agricultural Sciences.

Another advantage of the case study method includes an element of narrative, which unfolds from the diverse, complex and sometimes conflicting stories told by people, documents and other evidence (Flyvbjerg, 2001). This approach leaves room for the reader to make different interpretations and draw diverse conclusions. Though the case study tends to suffer from a lack of breadth, its advantage is depth. In contrast, quantitative methods with large samples can cover significant breadth, while the problem is depth.
The question of subjectivism and bias toward verification applies to all research methods, not just to case studies and other qualitative methods (Ibid.).

[T]he case study has its own rigour, different to be sure, but no less strict than the rigour of quantitative methods. The advantage of the case study is that it can ‘close in’ on real-life situations and test views directly in relation to phenomena as they unfold in practice. (Ibid.: 82)

As a way to reflect on and communicate my position as the researcher, explore my biases and share my motivations in pursuing this research topic, I participated in two personal interviews facilitated by colleagues at Schumacher College, International Centre for Ecological Studies in Devon, UK (See Vignette 1).

Much of the recent writing on postmodernism has pointed out the role an author plays in the creation of a text. Although standard measures may be used to ensure that the data we call upon are valid, reliable, and trustworthy, ultimately these data exist as the author’s interpretation of what the respondents said or did, an interpretation that obviously depends on the author’s values and biases. (Tierney, 1993: 32)

Vignette 1: Understanding the Journey

An Interview by Rajni Bakshi⁶, Schumacher College, July 2002

RB: Firstly, what took you to environmental sciences? Let’s start with that.

NG: At a young age, I felt very much connected to the natural world, feeling very inspired by the landscapes I grew up in, in Manitoba, in the prairies of Canada. And in one of my first introductions to Ecology in High School I felt again, really inspired by learning about science, the natural world in a very different way, in a way that I felt more connected with it. I was very much inspired by that to the point where this is what I wanted to focus on in my university studies. I then found my way to the University of Guelph to pursue the Environmental Sciences program there.

RB: And then how did that lead you to the current M.Sc. in Community and Regional Planning?

NG: I think that is such a key question because, though I didn’t realize it at first, I wasn’t entirely unconscious of it when I graduated from my undergraduate degree, I did feel like something was missing. There was some gap. There was some disconnect. I was missing a more humanistic personal connection to the material that we were talking about, i.e. how do we make it happen in the day to day?

⁶ Rajni Bakshi is a practicing journalist and writer based in Bombay. She is a former Schumacher College course participant, and we volunteered together at the College in July 2002.
RB: So, when you first came into the Masters program did you know immediately that you wanted to focus on the educational institution?

NG: No, not at all.

RB: So let’s talk about that journey. Having narrowed your search to community and regional planning, which brings it immediately to the day to day level, to a really human level, then from there, what was the journey into educational institutions?

NG: That’s a great question Rajni, because when I first entered the program, I thought that I was very interested in focusing on urban design, an ecological approach to urban design. How can we design spaces in the public realm within communities according to ecological principles. That was my interest then. And in one of my courses in the first year of my program - it was called Ecological Context of Planning - one of our first readings in that course was a paper called “What is Education for?” by David Orr. And in that reading, I felt transformed in a way that I can’t really describe. But I was transformed in the sense that it was cause for a great deal of reflection on my own education. It helped me reflect on what was missing during my undergraduate studies.

RB: What was missing?

NG: This personal, humanistic connection to what I was learning...actually thinking about, “why am I here?” Why did I decide to commit myself to this area of study? What is it in me that’s driving this interest? And how does the knowledge that I’m gaining affect myself and others.

RB: That didn’t come before in the other program?

NG: No, it didn’t. So this reading was cause for reflection and encouraged me to read more of David Orr’s work, which just furthered my interest. And in that course we were required to write one term paper, and I decided to use that as an opportunity to explore this topic further in terms of the role of higher education, what sustainability means, what’s the role of higher education in promoting a concept like this. In writing that paper I felt really impassioned by this topic and wanted to pursue it further in a thesis.

RB: Then you came for David Orr’s course? What was the role of the actual interaction with David Orr in your life and the journey?

NG: I feel fortunate to have connected with him on a very personal level, on a very human level. I mean I connected with him through his writing, through his academic work, but meeting him in person, sharing discussions within the class setting, over meals, being a part of the Schumacher College community - it just really added to the learning that I experienced during that course. I think of him as a mentor and his role as a mentor has been invaluable and very inspiring throughout this journey.

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7 David Orr was one of the instructors of the Business and Sustainability course at Schumacher College, Devon, UK, July 2001.
1.3 Conclusion

The insertion of vignettes emphasizes the value of reflection in learning - a crossroads in the thesis for my learning and the institution's learning. As Canada's first university to adopt a sustainable development policy, this thesis explores how well the policy is implemented in practice at UBC. Probing beyond the University's espoused theory in relation to the Policy to the theory in use, the thesis discusses the barriers to effective implementation and provides insights into why the University operates as a knowledge institution rather than a learning institution.
The success of higher education in the twenty-first century will be judged by our ability to put forward a bold agenda that makes sustainability a cornerstone of academic practice. A truly sustainable college or university would emphasize these concepts in its curriculum and research, preparing students to contribute as active citizens to an ecologically sound and socially just society (ULSF, 2001).

Five years ago, the University of British Columbia became Canada’s first university to implement a sustainable development policy. This came after becoming a member of the organization, University Leaders for a Sustainability Future (ULSF), and signing both the Talloires Declaration and the Halifax Declaration, international pledges among institutions of higher education to teach and practice sustainable development principles. The creation of Policy No. 5 could easily be perceived as a step in the right direction, as a commitment to a larger standard of human and ecological health, to change. In fact, UBC has been internationally regarded for having a sustainable development policy created to enhance its capacity to lead in practicing sustainable development and instill sustainable development values in its graduates and employees through its research, teaching, and operations. (See Appendix V for the complete Policy.)

But what does a model of higher education based on principles of sustainability look like in practice? What do students need to know to live sustainably with one another on the planet, and how will they learn these things? What types of institutional arrangements will be required to accommodate such change? This chapter examines the literature on education for sustainability and

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8 The Halifax Declaration was created in 1991 at an international conference of university presidents to address the challenge of environmentally sustainable development, building on the declaration of environmental commitment at a conference of university presidents in Talloires, France, in 1990. The Talloires Declaration has nearly 300 signatories world-wide. For more information, visit University Leaders for a Sustainable Future at www.ulsf.org or the International Institute for Sustainable Development at: www.iisd.org.
citizenship education to explore a more relevant educational model to the demands of the 21st century. In turn, we must be willing to embrace significant changes in our curricula, teaching practices, reward system, and governance process, and most importantly in our institutional practices, values and beliefs (Astin & Astin, 2000).

"Attempts to reform or transform higher education in the last two decades include the assessment movement, formation of learning communities, conceptual shift from teaching to learning, technology revolution and adoption of new pedagogies such as collaborative learning and service learning" (Astin et al, 2002: 141). Educational reform is not a new phenomenon. For decades scholars have argued for change in our educational systems. The plea for a new model of higher education, an alternative to the traditional, reductionist, mechanistic industrial-age model has been echoed in the writings of many significant educational theorists and practitioners.

2. 1 Sustainability

Educational models of demonstrable relevance to social, ecological and economic realities are required now more than ever in times of accelerated change, growing social inequities and increasing ecological devastation, and the concept of sustainability requires us to think and of course, act differently. The term sustainability or sustainable development, however, has been interpreted in so many ways, and the same can be said for education for sustainability or sustainability education. In his book, The Hidden Connections (2002), Fritjof Capra provides a brief retrospective on the definition of sustainability:

The concept of sustainability was introduced in the early 1980s by Lester Brown, founder of the Worldwatch Institute, who defined a sustainable society as one that is able to satisfy its needs without diminishing the chances of future generations. Several years later, the report of the World Commission on Environment and Development (the 'Brundtland Report') uses the same definition to present the notion of sustainable development: 'Humankind has

9 To view the complete version of Policy No. 5, visit www.policy.ubc.ca/policy5.htm.
the ability to achieve sustainable development – to meet the needs of the present without compromising the ability of future generations to meet their own needs.’ These definitions of sustainability are important moral exhortations. They remind us of our responsibility to pass on to our children and grandchildren a world with as many opportunities as the one we inherited. (200)

Capra continues by suggesting that this definition does not tell us anything about how to build a sustainable society, which is why there has been so much confusion about the meaning of sustainability. He emphasizes that “Sustainability does not mean that things do not change: it is a dynamic process of co-evolution rather than a static state” (2002: 201). According to Agenda 21, an outcome of the 1992 Earth Summit in Rio de Janeiro, sustainable development education should deal with the dynamics of the physical, biological, social, economic and spiritual environment and should be integrated into all disciplines (Byrne, 2000). There has been some consensus that education reform, service and community involvement serve as the foundations of a model of sustainable development education (Smith, 2000). Sterling goes a step further in his book, Sustainable Education (2001), and suggests that education for sustainable development has the following components or learning outcomes:

- interdependence of society, economy and the natural environment, from local to global;
- citizenship and stewardship – rights and responsibilities, participation, and co-operation;
- needs and rights of future generations;
- diversity – social, cultural, economic and biological;
- quality of life, equity and justice;
- sustainable change – development and carrying capacity; and
- uncertainty, and pre-caution in action.

While these foundations do not represent the entire spectrum, they do provide a point from which to initiate dialogue.
2.2 Citizenship and Service Learning

"The qualities of good citizenship are also the marks of a well-educated person" (Ramaley, 2000). This thesis distinguishes between the rights and responsibilities associated with the concept of citizenship, and qualifies responsibility as working to effect positive change in our communities and developing the combination of knowledge, skills, values and motivation to make that change. "It means promoting the quality of life in a community..." (Ehrlich, 2000: vi). As Canadian citizens, we have the "responsibility to actively contribute to the social, economic and environmental well being of our country." Education for citizenship focuses on teaching and learning to serve a greater good, larger purpose, in the context of a wider community, with opportunities for reflection on the impacts of the application of knowledge and moral development, as opposed to learning experiences intended to satisfy private goals (i.e. career planning).

Astin identified four major trends that imply a greater concern with fostering citizenship at the institutional level: "an increasing interest in ecology and environmental studies, the growing concern about the lack of community on college campuses, a heightened focus on diversity and multiculturalism, and the movement toward greater student and institutional involvement in service learning and volunteerism" (1999: 41 - original emphasis). Considered by many academics to be an indispensable method for citizenship education, the American National and Community Service Trust Act of 1993 defines service learning as:

- a method whereby students learn and develop through active participation in thoughtfully organized service that is conducted in and meets the needs of communities;
- coordinated with an elementary school, secondary school, institution of higher education, or community service program and the community;
- helps foster civic responsibility;

• integrated into and enhances the academic curriculum of the students, or the education components of the community service program in which the participants are enrolled; and,
• provides structured time for students or participants to reflect on the service experience.\textsuperscript{11}

A commonly cited definition of service learning is also offered by Bringle & Hatcher (1996: 222):

We view service learning as a credit-bearing educational experience in which students participate in an organized service activity that meets identified community needs and reflect on the service activity in such a way as to gain further understanding of the course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility. Unlike extracurricular voluntary service, service learning is a course-based service experience that produces the best outcomes when meaningful service activities are related to the course material through reflection activities such as directed writings, small group discussions, and class presentations. Unlike practica and internships, the experiential activity in a service learning course is not necessarily skill-based within the context of professional education.

Service learning programs have solicited a great deal of interest in the last decade. Though the practice of service learning has been more widespread in the United States, service learning methodology is increasingly gaining currency on Canadian campuses. At its best, service learning is an educational process of reciprocal benefit to students and the community. Service learning is also based on structured time for reflection. Dewey described reflection as the "heart of intellectual organization and of the disciplined mind...to reflect is to look back over what has been done so as to extract the net meanings which are the capital stock for intelligent dealing with further experiences" (1951: 110). Recent studies (Astin & Sax, 1998; Astin et al., 2002) reveal that participation in service during the undergraduate years enhances the student's development not only during college, but also during the post college years (Astin, 1999).

2.3 Community

To begin, the way we define community is critical to sustainable citizenship education. Extensive literature exists on the role of community in higher education, but little on how that translates into the day to day activities of the institution. Some of our most pivotal and revered educational theorists, such as John Dewey and Paulo Freire, argue for an emancipatory education, focused on the empowerment of the individual to participate in community. C.A. Bowers (2001) notes that while these scholars have contributed significantly to advance the philosophy and theory of education, they have also reinforced a sense of individualism so central to western civilization’s worldview – a worldview leading an era of unprecedented social inequity and ecological degradation.

The notion of community is often used in a utopic sense in university promotional materials where we find values-based statements like “graduates will be contributors to the campus, local and global community”. It is important to qualify what we mean by community, what constitutes a positive contribution and reflect on what we might envision to be a safe, just and healthy community. Communities are not always places of shared visions, acceptance and collaboration, but places of exclusion and conflict (Gillespie, 2001). Problems of community life include the presence of power differences that leads to structures of oppression and domination. Or, our association with community may be nothing more than idealistic words that we cannot put into practice (Tierney, 1993).

Furthermore, western thinking is anthropocentric in the extreme, traditionally involving the separation of natural history from human cultural history (O’Sullivan, 1999). As a result, non-human species are often excluded in traditional perceptions of community. This thesis grounds its arguments for community in the words of Wendell Berry: “Always include local nature - the land, the water, the air, the native creatures - within the membership of the community” (1999: 230).
2.4 Ecological Literacy

Too often, we educate for content without regard for context; yet in times of rapid change it can be argued that context is everything. “Knowledge does not...possess any inherent meaning in and of itself but depends on the context in which such knowledge is put” (McLaren, 1994). Facts alone are not as important as when they are applied and economic, social, ecological and political realities are factored in. We have undermined the educational enterprise more than we realize by fragmenting the thinking aspects from the doing aspects of learning (Senge, 2000). A new model for higher education would develop graduates who can ask big picture questions, think in whole systems, find connections, separate the trivial from the important and understand their subjectivity and individual self-referencing systems. Fritjof Capra (2002) has suggested that ecoliteracy – the understanding of the principles of organization that ecosystems have evolved to sustain the web of life – is the first step on the road to sustainability. The second step is moving towards ecodesign and applying our ecological knowledge to the fundamental redesign of our technologies and social institutions.

According to Capra (2002):

[E]cological literacy is being transmitted and continually refined in informal teach-ins and in the new institutions of learning of the emerging global civil society. Schumacher College, in England, is an outstanding example of such new institutions. It is a centre for ecological studies with philosophical and spiritual roots in deep ecology, where students from all parts of the world gather to learn, live and work together while being taught by an international faculty. (203)

Schumacher College offers an alternative vision of education with strong ecological foundations. Often described as a bold experiment founded on principles of ecological sustainability and spirituality, the challenge was, as Program Director, Satish Kumar describes, to “create a model where what you learn is as you learn” (Bakshi, 2001).
Vignette 2: Curriculum as Lived Experience - Reflections on Schumacher College

How do you design an academic institution that manifests the values you’re teaching about? Schumacher College in Devon, UK provides a living, working example. On July 15, 2001 I was introduced to what would be a life-changing learning experience. I knew the moment I crossed the threshold to the 600 year old building the College occupies, that something very rare was taking place.

I had discovered the College quite by accident. Searching the Internet for information I required for a term paper on ecological ethics and higher education, I stumbled upon the College’s web-site where American environmental educator, David Orr was listed as an instructor of a one-week course on Business and Sustainability. For the past several years, I had worked and studied in Canadian institutions of higher education, and wished to explore alternative models of higher learning, as well as new visions of leadership in higher education. Drawn by a desire to find inspiration and refreshment in a learning environment consistent with a holistic, lead-by-example philosophy, ten months later found me sitting across a dining table from David Orr, sharing one of the College’s savoury vegetarian meals.

Earlier that morning, following an optional group meditation, everyone at the College had gathered for the daily “warm-up”, a brief physical exercise session – one of many College rituals I would later learn. Moments prior to the first lecture of the day, some of us had been cooking the day’s lunch, while others looked after household chores. To my surprise, there are no dividing lines at the College, everyone participates – students, staff and faculty. The lecture room later filled with people who had traveled from different corners of the world. Characteristic of the College is the international make-up of its course participants. To date, participants representing over 75 nationalities have attended the College.
At the foundation of Schumacher College is a combination of learning through lectures as well as through community living. The curriculum can only be described as one's lived experience. Participants develop a sense of community, mutuality, learn from one another and not just from the instructor. Another important aspect of life at the College is food – its preparation and consumption. The varied vegetarian menu reflects the international nature of the course participants, and wherever possible, locally grown seasonal organic ingredients are used. The College's aesthetic and location are also actors in the learning environment. Set amidst the well managed Devonshire landscape surrounded by woodlands, farmlands and rivershed, a sense of place inspires imagination and evokes mindfulness. It is not just its remarkable setting, however, that inspires learning, but the spirit of this place echoes an ancient wisdom. A visit to neighbouring native forestlands in Dartmoor National Park later in the week with resident ecologist, Stefan Harding, was an effective reminder of our reliance on and interdependence with natural ecosystems.

Named after and committed to the work of E.F. Schumacher, most recognized for his book, Small is Beautiful: Economics as if People Mattered, the College was established in 1991 as an exploration and demonstration in holistic living. A response to unprecedented planetary change and peril over the last five decades dominated by a technocratic western world view, the College set out to explore the foundations of a more sustainable, balanced and harmonious world view through residential courses on spiritual balance, social justice and ecological sustainability. In partnership with the University of Plymouth, the College also offers a one-year M.Sc. in Holistic Science.

Reflecting on the Schumacher experience began the day I first arrived at the College, and will continue throughout my lifetime. The course at Schumacher was so much more than the formal teaching - it can only be described as an experience as a whole. I felt refreshed to live, learn and work in a place that conscientiously put in practice its stated values of holistic thinking, cooperative learning and ecological sustainability. On the last day of the program, we were asked to
write our reflections on what we saw ourselves doing in a year’s time. Our letters would be posted to us the following summer. I received mine a few months ago, after returning from a second visit to the College – this time as a member of staff. When I arrived at the College for the first time, I knew immediately that the one-week course would prove too short. I returned to Schumacher College in June 2002 and spent two months as a volunteer, learning more about the intricacies and subtleties of this unique learning environment. I assisted with courses on Ecological Design, The Web of Life, and Business and Sustainability taught by leading thinkers Fritjof Capra, John and Nancy Todd, Gunter Pauli, Amory Lovins and David Orr. Just like any educational institution, the College faces its own struggles and challenges, including a constant strain for funds, a lack of empirical evaluation and a sometimes risk-averse mentality, i.e. “why mess with a good thing?” In fact, during my second visit, the College was undergoing its first formal evaluation in 11 years. Overall, my initial perceptions were reinforced - Schumacher College is a place of hope; an educational ideal actively demonstrating the possibility of a better future.

I have not included Schumacher College in the thesis to offer a comparison or to ask what may be transferable to UBC. Rather, it serves as a “mirror” for those of us concerned about the design of post-secondary education for the 21st century. In fact, the College exists at opposite ends of all sorts of spectra (size, levels of hierarchy, rural/urban setting, financing), not to mention on a different continent, to a massive public research university like UBC. In her *Review of the First Eight Years* (1999), Director, Anne Phillips describes how the College was created following the closure of the Dartington Hall School on Dartington Estate in Devon, UK. The Estate Council had explored a variety of new developments designed to maintain the Dartington Hall Trust’s historic values and remain relevant to our time and to the future, one of which was Schumacher College. The following description of Schumacher College was approved by the Trustees in 1990:
The College will be a national centre in the fields of deep ecology, environmental action and transformation. It will provide a place and space where the implications of the profound changes in world views now surfacing in so many fields of human thought and endeavour can be studied – and lived – to some depth. (Phillips, 1999)

The Trustees have supported the College at a distance, allowing it a lot of freedom. It costs about 365,000 pounds a year to run the College of which about 100,000 pounds comes from the Trust, with added subsidies (Bakshi, 2001). The rest comes from fund raising and tuition fees. The short residential courses and one year M.Sc. are approved for accreditation, however, by the University of Plymouth.

In 2002, consultants, Stephen Sterling and John Baines, conducted the first formal evaluation of Schumacher College. The following defining features of the College were discussed in their report, *A Learning Review of Schumacher College* (Sterling & Baines, 2002):

- **Human scale** – A maximum of 25 students participate on any course, so that the College retains an atmosphere of conviviality. Human scale design also pertains to college architecture and site.

- **Inclusion** – “Everybody does everything.” This means first, that all staff and volunteer helpers are involved in the day to day running of the College. Second, all members of the College – staff, helpers and participants – partake in daily duties maintaining the College, including cleaning, cooking, tidying and cooking in an expression of common service.

- **Ephemeral but intense learning community** – The conditions encourage the emergence of a strong sense of learning community amongst participants, which is the more so as everybody knows it will soon disperse.

- **Unity in diversity** – Often, experienced people make up the participants, who are ecologically oriented but have diverse interests and backgrounds within that orientation.

- **Good food** – High quality but simple vegetarian food, is mostly locally sourced and mostly prepared on-site. This is a central part of the College’s ethos.
• **Ecological principles** – As far as possible, the College operates according to ecological principles with regard to resource use and making this part of the everyday curriculum.

• **Exploration** – Open-ended enquiry is encouraged rather than working towards prescriptive ‘learning outcomes’.

• **Focus** – Only one short course runs at any one time, resulting in a particular ambience and learning community in residence.

• **Variety** – A varied working day facilitates intellectual input in the mornings, and more opportunity for negotiated activities in the afternoons and evenings.

• **Aesthetics** – The College has a pleasing and atmospheric environment and location.

• **Emergence** – No one attempts to know or control what might emerge from the dynamics of any particular group or course.

Based on my experiences at Schumacher College, I would add ritual and story-telling as important defining features. “The dynamics of ritual involve a whole that is greater than the sum of its parts” (LeBaron, 2002: 259). The ritual of eating together, for example, “emphasizes common humanity and brings participants into a circle with one another” (Ibid.: 174).

[Ritual] is simply an intentional action outside the ordinary flow of events in which physical sensations and feelings are emphasized over rational analysis and logic. Ritual is essentially relational, whether the relationship is with another, the self, or with a higher power...Ritual satisfies our human need to express meaning and connection...Ritual is more than an ordinary action that may be repeated; it is more than a habit. (Ibid.: 254-255)

Every course begins with the story of Schumacher College, its history and foundations. Every morning the entire Schumacher community gathers to start the day. At the end of every course, a closing circle of reflective, meditative time allows participants to reflect on and share their experience.

Stories connect us to other times, helping us to make sense and meaning of our lives. They carry hope, values, choices, and reasons. Stories give our lives place, identity and context; they communicate this to others. They connect us in relationship through content, feeling and meaning. (Ibid.: 220)
Stories and rituals are meaning making activities that reinforce our interconnectedness. They are vehicles for creating community, engaging us fully in the process.

The Schumacher learning environment is characterised by its fluidity, integration, multidimensionality, intensity, ethical integrity, caring and synergy. It is difficult to separate out the learning experience from the learning environment as they are dynamically interrelated. (Sterling & Baines, 2002)

The Schumacher whole is truly more than the sum of its parts. Though it is difficult to assess in tangible terms the impact of the College, these defining features may assist others wishing to develop criteria for holistic educational models. “It is obvious to me, that as we emerge into the twenty-first century, other colleges and educational institutions will increasingly look to Schumacher College as a model and guide” (Guest instructor, David Abram)\(^2\).

### 2.5 Sustainable Citizenship Education

This thesis envisions a model of sustainable citizenship education that provides what O’Sullivan (1999) calls education for quality of life, community and a sense of place. We live in a society where much of our immediate world is supplied from other places. Recognizing our interrelatedness with all life forms, sustainability as a new educational orientation calls for a new understanding of what it means to be a citizen. In this section, I begin to unravel this vision of sustainable citizenship education in terms of conditions, motivations and challenges.

For a university to accept its civic responsibilities and thus play a role in generating citizenship education, we must consider 1) the expectations we have of ourselves as scholars and administrators, 2) our aspirations for our students, 3) the nature of and intentions of our own institutional relationships with the broader community of which we seek to be an integral part. (Ramaley, 2000)

2. 51 Conditions

There is nothing new about introducing concepts of service, sustainability and citizenship into the realm of higher education; however, in practice, these concepts tend to be auxiliary and not an integral piece of the modern curriculum. This thesis argues that such concepts should not be viewed as add-on or value-added curricular activities. Sustainability, for example, cannot be pursued as though it is a field or a discipline to itself, or by taking a course in sustainability, for sustainability isn’t associated with a specific body of knowledge. It is inherently interdisciplinary. We might be better served by the phrase “education as sustainability” because how learning takes place is just as important as what is being learned - the process is the point. An educational model based on sustainability principles would be integrated into the critical activities of the university: teaching, research and service. The model would recognize that curriculum isn’t confined to the activities of the classroom. “Many teachers think that curriculum is just a set of subjects, methods, and techniques, when it really embodies a comprehensive philosophical, political, and epistemological understanding of the pedagogical task” (Escobar, Fernandez & Guevara-Niebla, 1994: 97). Education is all around us. It’s in our buildings, our modes of transportation, design of public spaces and community relations. In other words, it’s place-based. Universities must also be seen as genuine learning laboratories where the creative energies of their members are used to find ways to shift institutional buying power and practices so as to cause less environmental damage and promote long term community wellbeing. These things are needed for all students, not just those studying ecology or environmental sciences. “Faculty ought to be encouraged in every way possible to take the time necessary to broaden their research and scholarship to include its ecological, ethical and social context” (Orr, 2002: 41).
Limited, isolated attempts to involve community cannot influence larger systems on a scale necessary to address significant community issues. They also will not offer the stimulation and breadth needed to involve a significant proportion of the student body in meaningful community-based work. As suggested by such concepts as “the engaged campus” (Ramaley, Thomas, Ehrlich) and “the university as citizen” (Bringle et al.), an educational model based on principles of citizenship will require a commitment on behalf of the entire institution. By modeling the conscience and skills they hope students will develop, faculty and staff will ultimately produce graduates who are citizenship-minded, action-oriented members of their communities – that is, individuals with both a conscience and the skills and tools needed to act on that conscience (Thomas, 2001).

2. 52 Motivations/Intentions

Universities have many reasons for adopting principles of sustainability in their missions and seeking closer alliances and partnerships with the communities they serve. They may be morally or ethically driven, based on a commitment to a greater good, as described in Dr. Piper’s opening address at the September 25, 2001 Sustainability Circle at UBC:

But most of all, it is our commitment to our community that drives the University forward in its quest for sustainability. To the local, national and global communities, we are responsible for minimizing the environmental impact of our operations, and for setting an example of sustainability leadership. Society looks to institutions of higher learning to make breakthrough discoveries, develop innovative strategies, foster progressive values and champion justice. It is up to us to take the lead, to prove that sustainability works.13

Motivations are also responses to expectations from others. UBC, for example, also acknowledges that “[q]uite properly, members of [the larger] community have high expectations of us to be

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13 President, Dr. Martha C. Piper, Sustainability Circle Tea, September 25, 2001, University of British Columbia.
responsive, to be consultative and to be engaged\(^\text{14}\). Student expectations for citizenship education, for example, may become more of a reality as incoming students arrive with more service learning experience in high school. Motivations also arise out of self-interest. Sustainable citizenship education, for example, might be considered an attractive selling feature or image booster for attracting more students and faculty to UBC, or gaining support from funding agencies. Other reasons include pressures on the institution generated by a crisis such as enrollment shifts, budgetary problems, or public criticism (Holland, 2001).

2.53 Challenges

One of the most significant ways in which service learning differs from many other community-related campus-based initiatives lies in its insistence that the needs to be met must be defined by the community, not the campus. In other words, service learning deliberately seeks to reverse the long-established practice of using the community for the academy's own ends. (Zlotkowski, 1999: 98 - original emphasis)

Community-university partnerships, like those developed through service learning programs, have several planning implications. Some academics argue that little evidence exists suggesting that service learning programs engage community members in the planning process or in the process of students' reflection about their experience (Albert et al., 2000). This thesis argues that effective service learning programs should engage community members in the course design, as well as in the process of student reflection. Both explicitness and flexibility are required in partners' statements of and negotiations over goals, strategies, procedures, and resources that each will bring to the partnership (Wiewel & Lieber, 1998). Ambiguity can plague a partnership; therefore, "[i]t is in everyone's interest to seek clarity of expectations, resources and reporting relationships from the outset" (Rubin, 1998: 310).

These priorities form the basis for models of co-learning, where community members serve as co-educators, and campus and community resources are linked together in ways that do not require people to remain in their traditional roles of expert and client. Rather, trust and equality is generated through reciprocal learning and empowerment (Ramaley, 2001). In successful collaborations, academics divest themselves of their expert status and meet the community on level ground, willing to learn as well as to teach. “Communities resent being merely ‘studied’ or temporarily invaded by culturally different faculty and students with little or no knowledge about or interest in the community beyond a course assignment or academic research project” (LeGates & Robinson, 1998: 315).

Communities cannot be viewed as pockets of needs, laboratories for experimentation, or passive recipients of expertise if the academy is to develop meaningful partnerships. Institutions, as well as individual faculty, need to give attention to developing and maintaining healthy relationships that are enduring and mutually beneficial. (Bringle et al., 1999: 9)

This type of exchange necessitates slow relationship building processes. Too often, change agents focus too much on implementing change and too little on sustaining that change. Furthermore, faculty members are not traditionally rewarded in the university for intensive, time-consuming interaction with community-based practice (Dewar & Isaac, 1998). Our fixation on short term results conflicts with fostering sustainable community collaborations.

Another related challenge is the tendency students have to focus on grades and what they feel the professor wants. In the community, a project’s goals and content can change frequently and the faculty member is no longer the only authority figure. The views of both faculty advisor and the community need to be considered and there are no right answers. Faculty members engaging in service learning need to ensure that students are provided with adequate support mechanisms and orientation programs.
Cultivating a collaborative partnership with a community group that extends beyond the individual course or one-time project is also critical in carrying out an effective service learning program (Zlotkowski, 2000). “Community leaders’ most frequent complaint about working with students is that the semester does not fit their needs” (Dewar & Isaac, 1998: 337-338). Rubin (1998) elaborates on this point and makes the following suggestions regarding the role of faculty and staff:

A reliance on connections among specific individuals should not detract from the need to institutionalize the partnership. Faculty and staff at the university and leaders of community organizations, foundations, and local government can and do change positions. It is important to extend the network of relationships, codify the procedures, ensure an active board of community participants, and to take steps that allow new individuals with different perspectives to take on major responsibilities. Also, although a university’s involvement can often be coordinated by one institute, it is also increasingly necessary to bring central administration into the partnership in order to build wider campus recognition and support for the effort. (309-310)

Successful community-university collaborations require time, commitment and consideration of both the short term and long term impacts of the project. It requires a constant effort to involve new participants so the “usual suspects” who always can be counted on to participate do not burn out (Ramaley, 2001). At the very least, community-university relationships must be built on mutual respect, reciprocal engagement, requires the creation of a shared agenda, and must be mutually beneficial to all participants (Ramaley, 2001). Without dialogue and feedback, abandonment of a project can lead to a lack of community trust and confidence in the university, creating resistance to future collaborative initiatives.

Isolation from the local community presents another challenge. Strengthening community-university collaboration is critical to fostering a greater understanding of different perspectives from people’s lives. This isn’t as difficult in the professional programs, where there are practica and internships built into the curriculum to have students out in the “real world”. Bringle & Hatcher argue, however, that “the learning objectives of these activities typically focus only on extending a student’s professional skills and do not emphasize to the student, either explicitly or tacitly, the
importance of service within the community and lessons of civic responsibility" (1996: 222).
Whereas students study at a relatively abstract level in programs like economics, philosophy, physics, and math, students are confronted all the time with society’s problems in areas like teaching, nursing and social work. How do we redesign the institution such that the more abstract disciplines are required to interact with the professions, and vice versa, creating a better reflection of the real world? As planning students, for example, we draw upon a variety of disciplines for theoretical background and contexts. These connections are critical and need to be reinforced through increased access to recognized interdisciplinary networks. However, there exist faculty who continue to regard the traditional lecture-discussion as the most effective way to teach, whose academic values and attitudes qualify academic excellence in terms of traditional research published in peer-reviewed journals (Zlotkowski, 2000). Though a minority no longer subscribes to those priorities, many faculty remain protective of curriculum issues, creating resistance to change.

Another challenge has to do with the very term “sustainability”. A complex and contested concept, the term has become somewhat controversial. Sustainability has been over-used, decontextualized, co-opted and appropriated to suit everyone’s needs to the point where some feel that there is barely any substance left to the word. Some scholars argue that sustainability is a limiting assumption, a recently popularized word meant to describe efforts toward creating a workable world:

Sustain is not a word of hope or creation. It means maintain, shore up, buttress. An alternative for example is viability. Viable means alive, vital, prospering. Sustainability cannot truly engender deep images of thriving. It stops at notions of surviving because it implicitly calls for adaptive or survival learning rather than generative or creative learning! (Shipka, 1995: 149)

Though some may feel that it is time to dispense with the term and adopt something new altogether, this thesis suggests that the problem is not language-based. Rather, it’s the politics of issues that remain unaddressed. A new term would likely be just as quickly decontextualized and
appropriated if it was no more clearly defined than the term sustainability has been (Lefebvre, 1998).

Contrary to some arguments that sustainability sustains the status quo, sustainability, as defined here, provides a new orientation that forces us to think over longer spans of time about the interconnected interests of people and the planet.

Sustainability represents a fundamental shift in the way we see the world – a full recognition of our past and current circumstances, and a serious commitment to improve those circumstances for future generations. It represents the ultimate challenge of reconciling our economic and social needs with the finite resources and health of the global environment. That reconciliation occurs not primarily in our surroundings, but within each of us. It is a deep-seated, internal shift in perspective.\textsuperscript{15}

Because sustainability is as much a conversation about ethics, politics, economics and sociology and how these are applied in the world as it is about biology, chemistry, geology or physics, it cannot be conducted as or through any one discipline (Orr, 2002), or offered as a single course. It is fundamentally about interdependencies. It is the recognition that my actions today can impact others somewhere else, at some other time. Curricular innovations such as service learning and interdisciplinary projects can encourage the conversation.

\section*{2.6 Conclusion}

We don’t necessarily teach unsustainability, but we can’t teach sustainability without fundamental changes in our current educational systems (Rees, 2002). A major challenge to exploring alternative pedagogies and educational models is that we lack a sufficiently common language that helps us to describe this work, let alone practice it. Without a shared language, we cannot design measures and standards of quality; nor can we develop the tools and strategies for

\textsuperscript{15} President, Dr. Martha C. Piper, Sustainability Circle Tea, September 25, 2001, University of British Columbia.
assessing the quality of this work, our progress, its impact on campus and community capacity, and for improving effectiveness (Holland, 2001). Other facilitating factors include:

- a critical mass of faculty – expanding the pool will depend in part on creating a value system that legitimizes community-based scholarship;
- redesign academic work, reward structures and institutional planning to include community expertise and participation; and
- a commitment of institutional financial resources to sustain the work and create necessary infrastructure (Holland, 2001).

It can be argued that the dominant model of higher education is based on a liberal perspective characterized by fragmentation, isolation and individualism (Tierney, 1993). Consequently, unlearning, re-learning and new learning will be the essences of the sustainability challenge (Sterling, 2001) for the university.
3) **Learning, Re-learning and Un-learning**

Excuse me Mister,  
Do you have the time?  
Or are you so important that it stands still for you?  
Excuse me Mister,  
Won't you lend me your ear  
Or are you not only blind, but do you not hear? (Ben Harper)

How can organizations that purport to advance learning, learn to recalibrate their missions and operations relative to a larger standard of human and ecological health? What types of institutional arrangements will be required to accommodate the conditions discussed in the previous chapter? 

This chapter begins by briefly discussing the changing nature of the university as an organization in North American society, and focuses on public institutions of higher education in Canada within the scope of undergraduate education. Though the structure of graduate and undergraduate education is highly interdependent in most cases, for the purposes of this thesis, graduate education will not be discussed in detail given the more specialized focus of most graduate programs.

### 3.1 The University

Institutions of higher education represent tremendous intellectual, human, economic, physical, and financial resources. Colleges and universities are centers of learning, major economic engines, and politically powerful anchor institutions in their communities. (Stegman, 1998: 283)

Universities are often considered leverage institutions in their communities, though what kind of leverage they offer and how it is used are critical questions. Universities have buying power; they employ a large number of people and contribute significantly to the local economy. Some university campuses are small cities, such as UBC with a population of nearly 40,000 students, 10,000 staff and 10,000 residents occupying 1000 acres of land. In fact, according to the University’s Official Community Plan, the number of residents is expected to double in the next 15 years as UBC evolves into a “University Town”.

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In the past, the university's purpose has been described in terms of research, teaching and service; however, in the last three decades, higher education has undergone rapid transformation and may be in a period of unprecedented change (Green & Hayward, 1997). In addition to powerful forces for change such as the growth of technology, expansion of higher education and the push for greater accessibility, some of the recent literature on the role of higher education suggests that the challenge of diversifying funding sources is affecting the university's cultural function. The emerging entrepreneurial nature of the university threatens the institution's mission to engage in the broadest and deepest levels of research and to freely share knowledge with the wider community. On the flip-side, there also exists a body of literature that calls for new market-based educational models where competition in the academy is seen to occur on two levels: competition for resources and drive for excellence (Rowley & Sherman, 2001). Rowley and Sherman argue that there not need be a downside to becoming more competitive and that it is possible for colleges and universities to work side by side and still compete. "[W]in-win situations are possible and there is nothing that challenges either the ethics or value system of a campus by adopting such a strategy" (Rowley & Sherman, 2001: 20). Readings (1996), however, goes as far to say that the university has become a ruined institution due to the impacts of the commercialization of research and a rise in entrepreneurial activity within the academy. Lacking substance, the word "excellence" permeates university brochures and web-sites delivering empty statements about the institution's values. Astin (1999) reflects further on the meaning of academic excellence:

I have been very critical of our traditional beliefs about what makes us academically "excellent," which seems to be defined by how many resources we acquire and by building up our institution's reputation so we can move up as far as possible in the institutional pecking order. My concern about these approaches is that they fail to address directly the basic societal purposes of teaching and public service. It is not that we do not need reputations or resources to teach and serve, but rather that a unidimensional focus on resource acquisition and reputation building as ends in themselves can ultimately cause us to neglect educational and service missions. Educational excellence, in other words, should not be defined by resources and reputation, but rather by how effectively students are educated and society is served. (36 - original emphasis)
In times of accelerated change, to what extent will the university remain a passive observer on the sidelines, a product of powerful external forces, or will it shape its own future?

Slaughter and Leslie, authors of *Academic Capitalism*, call "institutional and professorial market or market-like efforts to secure external moneys" (1997: 8) academic capitalism. They describe how the marketization of the academy in Canada, the U.S., Australia and the UK began in the last two decades alongside a reduction in government funding. A shift in the priorities of the academy occurred as the corporate quest for new products converged with faculty and institutional searches for increased funding. Post-secondary education was directed toward national "wealth creation" and away from its traditional concern with the liberal education of undergraduate students. Slaughter and Leslie refer to market behaviours as:

> for-profit activity on the part of institutions, activity such as patenting and subsequent royalty and licensing agreements, spin-off companies, arm's-length corporations, and university-industry partnerships, when these have a profit component. Market behaviour also covers more mundane endeavours, such as the sale of products and services from educational endeavours (e.g. logos and sports paraphernalia), profit sharing with food services and bookstores, and the like. (1997: 11)

Within public research universities, the authors report that funds devoted to instruction are diminishing while more and more go to research and other activities that increase the institution's ability to win external funds. Even when faculty are asked to focus on undergraduate teaching, most rewards are attached to bringing in external funds, funds that require them to perform research that may keep them away from the classroom. Consequently, research is mostly directed to areas that hold great financial promise, not to great human needs. Where are the financial gains in ideas related to the preservation of biological diversity, land health, sustainable resource management, and real human improvement (Orr, 2002)? Where is the profit potential in turning out well-educated, thoughtful and ecologically competent citizens?
In the Science Council of Canada’s publication *Toward a Service University* (1986) service is concerned with the university’s contribution to national wealth creation (Newson & Buchbinder, 1988). Newson & Buchbinder critique the vision of the Service University: “In this context ‘service’ means a narrow, unidirectional focus on satisfying the needs of the corporate sector, rather than a broad focus on the diverse needs of Canadian society as a whole. Service to society is equated with service to industry” (Ibid.: 82). Slaughter and Leslie describe universities as the repositories of a nation’s most scarce and valuable human capital, “capital that is valuable because it is essential to the development of high technology and technoscience necessary for competing successfully in the global economy” (Slaughter & Leslie, 1997: 10).

But at the time when we need a larger idea of education, our proudest research universities, almost without exception, have aspired to become the research and development wing of high modernism...the more prestigious institutions have become partners, and sometimes accomplices, of major corporations in return for large contributions and contracts. Many have established offices to foster and administer the commercialization of research and its subsequent use, thereby compromising the free flow of ideas and contaminating truth at the source. (Orr, 2002: 73-74)

The risks attached to academic capitalism may lead to the loss of traditional lines of financial support. Faculty success in raising institutional revenues through intellectual property might result or may have resulted in revenue substitution, whereby governments curtail funding because institutions generate their own resources. As fewer resources are available for education and nonentrepreneurial faculty research, further consequences include loss of public confidence (Slaughter & Leslie, 1997).

As fundamentally public institutions, gaining public support requires a broader vision (Tudiver, 1999) of service and community. How does the institution engage the local community? According to the department of Planning and Institutional Research at UBC, one way the University finds its way into the community is through technology applied by industry, or through the creation of spin-off companies (as of 2000, 91 spin-off companies have employed 2,500 people and attracted
close to $1.4 billion in private investment)\textsuperscript{16}. We have experienced an increasing presence of ‘community’ in university mission statements without giving equal attention to how we involve and interact with community.

Formal recognition of the institution’s responsibility for fostering moral development and a commitment to community involvement among students frequently appear in university publications. “Promoting good citizenship and developing future leaders are two of the most commonly stated values in the mission statements of colleges and universities” (Astin, 1999: 42). UBC’s mission, for example, is “to prepare the future citizens of this world”. “Students should leave UBC able...to contribute positively to society” (UBC Academic Plan, 2000). “Graduates will value diversity, work with and for their communities, and be agents for positive change”(Trek 2000 Vision Document). Few campuses, however, have a coherent institutional strategy to implement those kinds of statements (Colby & Ehrlich, 2000), and reducing this disconnect is critical to becoming a learning organization. “Take a look at the unsupported claims made in almost any college’s or university’s public relations material and you will see how far the institutions are from this goal” (Angelo, 2000: 80).

The thing being made in a university is humanity...but what universities, at least public-supported ones, are mandated to make or to help to make is human beings in the fullest sense of those words - not just trained workers or knowledgeable citizens but responsible heirs and members of human culture. If the proper work of a university is only to equip people to fulfill private ambitions, then how do we justify public support? (Berry, 1987: 77)

In order to maintain their status as society’s meaning producing enterprise, universities will need to develop the capacities for becoming learning organizations, or others will reinvent the academy for less worthy purposes (Orr, 2002).

3.2 Learning Organizations

When we call for learning or change we seem to be calling for something good, but there are some forms of change such as deterioration, regression and stagnation, or learning to deceive and manipulate, that can actually cause great harm (Argyris & Schon, 1978). We need to articulate both the kinds of change we have in mind when we speak of learning, and the kinds of learning we have in mind when we call for more of it. Organizational learning is not the same thing as individual learning, even when the individuals who learn are members of the organization. In too many cases, "organizations know less than their members" (Argyris & Schon, 1978: 9). Though the majority of the literature on organizational learning is tailored to corporations, the remaining sections of this chapter will refer to the work of scholars such as Argyris, Schon and Senge and discuss potential learning infrastructures which will later serve to explore the implications for organizational learning at UBC.

Articulating a vision and acting on a vision are two very different things. In other words, just because certain values are being articulated on behalf of an institution doesn't automatically result in their application. Argyris & Schon (1978) address this phenomenon, sometimes described as "lip-service" or "window dressing", by distinguishing an organization's espoused theory from its theory in use:

When someone is asked how he would behave under certain circumstances, the answer he usually gives is his espoused theory of action for that situation. This is the theory of action to which he gives allegiance and which, upon request, he communicates to others. However, the theory that actually governs his actions is his theory in use, which may or may not be compatible with his espoused theory; furthermore, the individual may or may not be aware of the incompatibility of the two theories. (1978: 11)

Organizational learning involves the detection and correction of error, which Argyris and Schon describe in two principal forms. When the error detected and corrected permits the organization to carry on its present policies or achieve its present objectives, then that error-detection-and-
correction process is called single loop learning. “Double loop learning occurs when error is detected and corrected in ways that modify an organization's underlying norms, policies and objectives” (Argyris & Schon, 1978: 2). Single feedback loop learning connects the detection of error to strategies and assumptions for effective performance; whereas double loop learning addresses the very norms that define effective performance. What they call deutero learning involves carrying out both single and double loop learning. Members of the organization reflect on and inquire into previous contexts for learning and previous episodes of organizational learning or failure to learn. “The quest for organizational learning capacity must take the form of deutero-learning, most particularly about the interactions between the organization's behavioural world and its ability to learn” (Argyris & Schon, 1978: 28).

A learning organization is a vision. According to Senge, it is an organization that is continually expanding its capacity to create its future (1990). In other words, it is a place where people are continually discovering how they create their reality and how they can change it. Learning involves a fundamental shift or movement of mind - it is not merely enough to survive. Challenging the status quo is expected in a learning organization. Through learning we re-create ourselves; we reperceive the world and our relationship to it. What Senge calls adaptive learning is learning that maintains survival; whereas generative learning leads to creating the future. In order to create effective learning organizations, adaptive learning must be combined with generative learning.

Senge describes the learning challenge faced by us all as the ability to "continually expand our awareness and understanding, to see more and more of the interdependencies between actions and our reality, to see more and more of our connectedness to the world around us" (1990: 170). The key to learning is thinking over long spans of time, moving beyond strategic plans, prediction and reactive responses to problems in the immediate or short term. Learning is both past and future oriented. An organization that is unaware of its history, its learning patterns, or lack thereof, will
just re-create itself. Before a transition toward sustainability can be fostered, it helps to understand
the reality we have co-created, however unintentionally.

Organizations learn only when individuals learn. Though individual learning does not guarantee
organizational learning, no organizational learning can occur without it (Senge, 1990). There is no
formula or best practices for becoming a learning organization; however, Senge proposes five
disciplines that when applied, can lead to the development of certain skills and competencies for
learning. Senge emphasizes that these disciplines are not ideologies, but capabilities. These disciplines
include systems thinking, personal mastery, mental models, building shared vision as opposed to
vision statement, and team learning that starts with dialogue.

3. Learning Disciplines

“Systems thinking is a discipline for seeing wholes” (Senge, 1990: 68). As a conceptual
framework for seeing interrelationships rather than isolated, well defined things, systems thinking
makes the full patterns clearer in order to help us understand how to change them effectively. Senge
argues that human endeavours are systems bound by invisible fabrics of interrelated actions, which
often take years to fully play out their effects on each other. Moreover, since we are part of the
lacework ourselves, it’s even harder to see the whole pattern of change. Rather, we tend to focus on
snapshots of isolated parts of the system, and then wonder why our deepest problems are never
solved. Systems thinking opens our minds to understanding how all parts of the system are
interrelated by feedback loops. “As people see more of the systems within which they operate, and
as they understand more clearly the pressures influencing one another, they naturally develop more
compassion and empathy” (Ibid.:171).

Personal mastery is the discipline of personal growth and learning. “[T]he essence of personal
mastery is learning how to generate and sustain creative tension in our lives” (Ibid.: 142). Learning
in this context does not mean acquiring more information, but expanding our ability to produce the results we truly want in life. It is life-long generative learning, and learning organizations are not possible unless they have people at every level who practice it. The spirit of the learning organization comes from their quest for continual learning. Practices such as “developing a more systemic world view, learning how to reflect on tacit assumptions, expressing one’s vision and listening to others’ visions, and joint inquiry into different people’s views of current reality” (Ibid.: 173) develop one’s personal mastery, as well as the other disciplines.

What Senge calls mental models are the lenses through which we see the world. “Mental models are always incomplete and especially in western culture, nonsystemic” (Ibid: 185). In order to become more aware of the ways we form our mental models and the impact they have on our actions, reflectiveness is critical to learning as it forces us to slow down and focus our thinking processes.

“A shared vision is the answer to the question, ‘what do we want to create?’”(Ibid.: 206) In Senge’s terms, shared visions create a sense of commonality that permeates the organization, and provide the focus and energy for learning. The first step in mastering the discipline of building shared vision is to give up traditional notions that visions are always announced from the top or arise from an organization’s institutionalized planning process. A trend in recent years, top management will retreat to write its vision statement often with the help of consultants. Sometimes vision statements are written to deal with low morale or lack of strategic direction. Senge calls this a “one shot” vision – a single effort at providing overarching direction and meaning to an organization’s strategy. Once it’s written, management assumes that they have now completed their visionary duties, but the resulting vision does not build on people’s personal visions. Often, personal visions are ignored altogether in the search for a strategic vision, or the official vision reflects only the personal vision of one or two people. As a result, the new official vision also fails to foster
energy and commitment. "A vision not consistent with values that people live by day by day will not only fail to inspire genuine enthusiasm, it will often foster outright cynicism" (Ibid.: 223). Nor is vision a solution to a problem. If it is perceived this way, when the problem goes away, the energy behind the vision will leave with it. Senge offers the metaphor of the hologram, a three-dimensional image created by interacting light sources, to explain how individual visions join to create shared visions:

If you cut a photograph in half, each part shows only part of the whole image. But if you divide a hologram, each part shows the whole image intact. Similarly as you continue to divide up the hologram, no matter how small the divisions, each piece still shows the whole image. Likewise, when a group of people come to share a vision for an organization, each sees her own picture of the organization at its best. Each shares responsibility for the whole, not just for his piece. But the component 'pieces' of the hologram are not identical. Each represents the whole image from a different point of view. (212)

Senge’s final discipline, team learning, begins with dialogue. Through dialogue we are empowered to invent new realities in conversation. Friedmann assigns a central role to dialogue as the absolute measure to judge the fitness of actions, concepts, and institutions (1979). “Joined in dialogue, we build a common ground between us, a new reality, for which we are responsible. This ground we hold in common trust” (Ibid.: 104). Dialogue also involves learning how to recognize patterns of interaction in teams that undermine learning (Senge, 1990).

Embedded in all the disciplines are aspiration, mutuality and conversation. Without aspiration, any learning that takes place occurs only when there is a crisis, when there is no choice but to change. Without reflection and the capacity for real conversation there is no mutuality; there is no fiber that connects people changing together. Without conversations, there may be several visions but no shared vision (Senge, 2000).

Senge’s basic meaning of a learning organization is an organization that is continually expanding its capacity to create its future, and in practice, the disciplines, as outlined above, serve to enhance that capacity. Academic institutions like UBC are committed to creating the future citizens of the
world or global citizens. They have a unique role in forming the values of young people (LeGates & Robinson, 1998). In this context, learning is not only a matter of expanding the institution’s capacity to create its future, but our future as a society as well. In terms of a transition toward sustainability, UBC’s leverage potential is great, though some scholars would argue that the domination of market concerns is causing universities to lose their meaning-producing role in society. Though the bulk of the existing literature on organizational learning is geared toward corporations, the following section discusses possible learning infrastructures for the very institutions that purport to advance learning.

3. 3 Learning Infrastructures for Academic Change – Transforming Departments into Learning Communities

Is it possible to overcome barriers like the risk-averse nature of colleges and universities and develop what Senge and Scharmer (2001) call “learning infrastructures” that enable relationship-building, collaborative projects and sharing of insights across the entire community? For some, the idea of change is not congruent with academe (See Vignette 3). Rather, there is a certain inertia associated with educational institutions, “whose essential function always leads them to self-reproduce as unchanged as possible, like traditional societies” (Bourdieu & Passeron, 1977: 32). In addition, as institutions that purport to advance learning, universities may not place a high value on their own learning because they’re supposed to be the epitome of learning, i.e. “How could you possibly say that we’re not learning because we are all about learning”. The challenge of becoming a learning organization, an engaged institution that moves beyond traditional conceptions of university outreach, extension, and service and becomes engaged in a reciprocal process of shared learning with the communities and constituencies it serves, will require learning infrastructures – learning capacities to facilitate the transition to sustainability.
If you can’t change the institution, study it,” David Orr suggested to me one morning at Schumacher College where he was teaching a course on Ecological Design last summer. He was referring to his experience leading the design of a new Environmental Studies building at Oberlin College in Ohio where he serves as Chair of the department. Completed in early 2000, the Adam Joseph Lewis Center continues to attract loads of media attention and external recognition. One of the U.S. Department of Energy’s top thirty “Milestone Buildings in the Twentieth Century” and winner of several honours and awards in architecture, construction and energy efficiency, the Lewis Center has drawn tens of thousands of visitors, including representatives from hundreds of colleges and universities, federal agencies and private companies. Back home at Oberlin College, however, the project began and remains on the periphery of institutional consciousness. A laboratory for ecological design based on principles of sustainability, zero-waste and solar power, the building is integrated with curriculum as well as the local landscape. Complete with a living machine to process wastewater much like a natural wetland, the costs of the Center range between $250-260 per square foot, consistent with construction costs of classroom or office facilities of the same size built in the region at the same time. To this day, however, the Lewis Center does not reflect a wider institutional commitment to sustainability. Other than the President of Oberlin College, the building had no support within the College’s administration; no feedback loops were in place to link the project to other building projects or institutional operations. Rather, the project has been more regarded as an isolated experiment, not the beginning of larger change. In fact, a year after the Lewis Center, a new science facility was developed with few, if any, ecologically sustainable features and commits the College to energy costs significantly higher than what is necessary. Looking back

17 This vignette is based on personal communication with David Orr (June 2002), as well as a work in progress: “Can Educational Institutions Learn? The Creation of the Adam Joseph Lewis Center at Oberlin College” (Orr, 2002).
on the experience to date, David reflects on how the design and hardware of the building, though complicated, were easier to deal with than the human aspects of the process. The institutional barriers have inspired David’s next project – a case study to explore the potential for educational institutions to become learning organizations.

“Whatever they once may have been, institutions of higher education have become vast and expensively operated machines much like any for-profit corporation” (Orr, 2002: 153). Authors such as David Orr and Kirkpatrick Sale have argued that the scale of most institutions is not conducive to meaningful, humane interaction. They emphasize a more human scale, a scale at which learning best takes place – a scale of classroom, school, campus, community. “Insofar as we cherish our schools, insofar as we believe them to be the means to transmit the better parts of the human tradition and not merely engines to empower our economy, we must resurrect that scale: the human scale” (Sale, 1980: 292).

Sale (1980) describes the reasons for the educational deficiencies of large institutions in terms of a lack of community, overspecialization, bureaucracy, alienation and “growthmania”. If it is true that a community constitutes a good environment for scholarship, he believes that growth beyond a rather small size (500-1000 for a small college) becomes progressively more dysfunctional as it eliminates at one level after another the possibility for community. What he calls the “multiuniversity” consists of 30-40 000 students and breeds overspecialization. The institution is made up of several large departments full of narrow specialists such that a biochemist’s immediate community, for example, is two dozen other biochemists, rather than zoologists, chemists, and mathematicians, let alone humanists (Ibid.). What Sale describes as “growthmania” refers to the desire for academic or institutional status, a phenomenon that often results in the perpetual expansion of individual departments. Since size is often taken as a mark of status, if a mediocre
program cannot be good then it can at least be big. As universities grow they add units, and as the number of units increase, the number of coordinations required increases disproportionately. The result is bureaucratic inefficiency, loss of creativity and impersonalization (Ibid.). As the campus becomes a crowd, anonymity, impersonality, absence of community, and bureaucratic complexity combine to diminish the possibility of fruitful human interaction, creating a distinct loss of morale among the faculty and alienation among the student body. As a result, Sale links increasing size to declining academic standards. “The coincidence of declining standards and increasing size is too regular to be merely accidental: there is a specific correlation between the quality of education and the number of people who are to receive it” (Ibid.: 289). A student’s ability to learn and grow is compromised in an environment where he or she disappears in a sea of faces. “It is not that a giant university cannot turn out competent graduates, for sometimes some manage to do that (Berkeley, Texas, Michigan); it is rather that as a rule these large institutions have grown so fast and far that they cannot maintain whatever quality they had, and in order to spread what remains over so many thousands of students they are forced to water it down” (Ibid.: 289).

The impacts of declining government funding have induced pressures to raise tuition rates as well as enrolment numbers. Resulting challenges include maintaining adequate physical space, faculty-to-student ratios, peer interaction and the overall quality of learning. Facilitating human scale learning is an essential learning infrastructure, especially in a “multiuniversity” like UBC where re-envisioning individual departments as learning communities is a critical step.

That being said, the idea isn’t to create learning communities in isolation from one another, reinforcing traditional discipline-centred design. “Fragmentation of academic departments and disciplines is if anything more severe than in business” (Senge, 2000: 295). Networking with colleagues from other programs is an area of potential leadership leverage for department chairs and innovative faculty members. Are forums created in which to share with others the innovations
brewing within their own departments and seek connections to like-minded faculty elsewhere?
Within their own departments, is the effort made to spend time with faculty eager to take risks and try new experiments? Who serve as “reflective practitioners,” competent in taking action and simultaneously reflecting on it? Learning communities rely on reflective practitioners who do not keep ends and means separate; nor do they separate thinking from doing (Argyris & Schon, 1978; Schon, 1983).

Though there isn’t one set formula for transforming academic departments into learning communities, the following guidelines are adapted from Angelo (2000: 80):

1. **Build shared trust.** Start with what’s already being done well and by attending to faculty members’ needs to feel respected, valued and safe rather than starting with debate and identifying problems.

2. **Build shared motivation.** Collectively determine goals worth working toward and problems worth solving.

3. **Build a shared language.** Establish what is meant by key terms such as learning, community, sustainability, service and improvement.

4. **Design backward and work forward.** Work backward from the shared vision and long term goals to determine outcomes, strategies and activities. In other words, start with the desired end, goal or overall vision.

5. **Think and act systematically.** We all operate within larger contexts that affect and are often affected by our actions. It is important to understand the advantages and limitations of the larger systems within which we operate, and seek connections and applications to those larger worlds.

Academic departments are systems within systems so there are limits to the amount and type of change an individual department can initiate or maintain.
6. *Practice what you preach.* As in Ghandi's words, "Be the change you want to see in the world". Faculty cannot hope to transform the teaching and learning process for students unless they learn and transform their own mental models.

7. *Ask the right questions.* The standards against which we evaluate institutions of higher education need to include real ecological impacts on the world and perhaps those of our graduates (Orr, 2002). Assessment is not about measurement tools and analytical techniques; it is first and foremost about asking the right questions. Whatever faculty assess (evaluate, measure, judge, grade) is what those being assessed will likely pay more attention to and do more of. The ways in which faculty and students are assessed can promote or preclude change by affecting motivations. Assessment also needs to be a dialogue about the process of education not only about the goals, since "pedagogic action must always transmit not only a content but also the affirmation of the value of that content..." (Bourdieu & Passer, 1977: 125). Bourdieu and Passeron have further argued that "the technocratic measurement of educational output assumes the impoverished model of a system which knowing no other goals than those it derives from the economic system, responds optimally, in quantity and quality, and at a minimum cost, to the technical demand for training, i.e. the needs of the labour market..." (1977:181). Still valid today, the result is an education capable of "producing made-to-measure specialists according to schedule" (Ibid.).

3.4 Conclusion

In their report, *Returning to our Roots: The Engaged Institution*, the Kellogg Presidents' Commission stated that: "While our society has problems, our institutions have ‘disciplines’...[D]espite the resources and expertise available on our campuses, our institutions are not well organized to bring them to bear on local problems in a coherent way" (1999). At the core
of emerging concepts of the Engaged Campus and the University as Citizen is the question of making community-university collaboration an integral part of the university’s core research, teaching, and public service efforts. It means making the transition from episodic engagement activities, dependent on individual persistence and energy, to a lived, campus-wide ethic. The transition will require the development of learning capacities as discussed in this chapter, though the learning process will vary across institutions of higher education. Colleges and universities have their own personalities, shaped by the missions and goals of their institutional types, as well as the history and experiences of the individuals and groups who comprise the institution (Singleton, Hirsch & Burack, 1999). In order to understand the learning processes at UBC as embedded in the specific contexts that contain them, members of the UBC community enter into the conversation in the next chapter.
4) **LOOKING INWARD, EXTENDING THE CONVERSATION**

I hope you still feel small when you stand beside the ocean. (Leanne Womack)

As we begin to dig deeper and examine the contexts for learning at UBC, this chapter presents the outcomes of both case studies. Members of the UBC community add their voices to the conversation, bringing us closer to understanding what it means to be Canada’s leader in campus sustainability and what the institutional learning capacities might look like for getting us there. The story of a small Faculty that has worked to transform its core curriculum around sustainability principles, combined with the views and perceptions of university leaders on the institution’s commitment to sustainability, raise some questions about the institution’s ability to shift from a knowing organization to a learning organization.

### 4.1 Implementing Policy No. 5 – An Unplanned Learning Experiment

According to the majority of participants I interviewed, the question of rethinking and adjusting institutional behaviour and curriculum to ensure a larger standard of human and ecological health remains unaddressed in many areas of the University, with or without a sustainable development policy. In fact, one respondent admitted to not knowing that the policy existed, while others knew about the policy but were unaware of its purpose.

In my interviews I learned that the Policy’s current state of inaction and lack of academic profile originated early on in the adoption process. John Robinson, professor of geography and former Director of the Sustainable Development Research Institute (SDRI), filled a key role in formulating the policy and shared his experience with me.

The Policy has roots in an earlier program called Greening the Campus (GTC), an initiative of SDRI. In the early 1990’s, GTC aimed to bring sustainable development issues closer to home and
engage students in projects that would not only broaden their awareness of sustainable development issues and solutions but would also benefit the University. Since SDRI is not a teaching institute, the program was designed to incorporate GTC in existing courses across a variety of disciplines and involve faculty, staff and students. A steering committee composed of three representatives from each group oversaw the program. Students would receive academic credit for the research projects they accomplished, often with the assistance of UBC staff members and with the support of a faculty member. In many cases, staff members who lacked the resources or the expertise to conduct the research on their own proposed the projects.

SDRI and the GTC program steering committee participated in the development of the UBC Sustainable Development Policy, with the notion that without a policy, "it was hard for the university to act on any of this stuff". The drafting committee proposed an Ombudsperson for Sustainable Development who would report to the Vice President, Administration and Finance and work closely with the Coordinator of the GTC program. The policy also called for an Advisory Committee on Sustainable development and GTC to advise the Vice President, Administration and Finance on administrative matters and the Vice President, Academic on academic matters.

Though some members of senior administration wanted to delay the approval process due to budgetary concerns, the Board of Governors felt strongly that they wanted the policy in place and approved it in the spring of 1997. The policy, however, was changed during the approval process such that the Ombudsperson would report to the Associate Vice President of Land and Building Services, the physical operations division of the University. One time seed money of $50,000 would be provided on the condition that continued funding of the position would come from cost savings generated through the water and energy efficiency initiatives associated with the position. The Associate VP developed a revised job description for the Ombudsperson, who would assume responsibility for all academic and operational aspects of sustainability including GTC, eliminating
the original GTC Coordinator position in the process. As a result, GTC would become purely operational without any academic line of authority or mandate. Members of the policy drafting committee expressed their concerns and recommended that the proposed Advisory Committee on Sustainable Development and GTC be established to advise on the policy implementation process, but they received no response.

A year later, further changes had occurred and a Director of Sustainability was hired and a Campus Sustainability Office was established within the Land and Building Services division. The position implied only a name change, and the Office, with a current full-time staff of four, maintains an operational focus with limited academic ties. The GTC program no longer exists. It is generally well acknowledged, however, that despite the low staff numbers, the Office is involved in some positive initiatives, which include a variety of recycling programs, “lights-out” campaigns to preserve energy and water and energy conservation retrofits in campus buildings. Some respondents feel, however, that the Campus Sustainability Office is better characterized as the campus waste reduction unit.

Since the creation of Policy No.5 and the Campus Sustainability Office, there has been a handful of faculty members who have attempted to promote a broader agenda for sustainability and rethink curriculum design. Their actions were also influenced by the loss of the Environmental Studies program around the same time due to increasing competition for students from the Environmental Sciences, Geography and Forestry programs. In the fall of 1998, the Vice President, Academic established a committee with representatives from eight faculties to rethink UBC’s environmental programs. In their report *Rethinking Environmental Education at UBC*, the committee, chaired by political science professor and Chair of the former Environmental Studies program, Kathryn Harrison, identified over 200 courses related to environment and sustainability, as well as numerous interdisciplinary degree programs, environmental options within disciplinary
programs and research institutes. There was little coordination found among them, however, and the web pages of environmental research programs and centres typically had excellent links to off-campus sources, but few or none to colleagues within UBC. The committee noted that research and teaching activities were not sufficiently visible to current and prospective students, nor to the broader community and that the University may also be duplicating efforts in some circumstances where those resources could be better used to fill gaps in course offerings. In addition, the committee felt that opportunities for fruitful interaction among students and faculty with common interests were being forgone\(^\text{18}\). In the end, the committee proposed a College of Sustainability, which would coordinate and deliver a mandatory interdisciplinary course in sustainability studies for all first year students. Perceived as too radical, the proposal was immediately rejected. Currently on the table for negotiation is an evolved proposal for an inter-faculty program on sustainability studies prepared by one of the faculty members involved in the original College proposal, George Spiegelman.

On his own initiative, George spent a full academic year meeting with every department head on campus to obtain feedback and discuss the potential for an inter-faculty program that would involve:

- an interdisciplinary majors degree based in sustainability,
- a minors option in sustainability studies open to any student from any discipline, and
- a two-week "guerilla teaching" module on sustainability instructed by a trained, interdisciplinary team which could be dropped into any first or second year course at UBC.

When I asked George about his work on the most recent proposal, he shared his outlook:

> You know it's not whether you win, it's the struggle. If you can't get the personal satisfaction out of the struggle you're never going to do it. So that's the way I look at all this stuff. I mean coming to work and not doing something about this is worse than coming to

work and doing something about it. So that's why I do it. And I've tried a whole bunch of different versions of this [proposal] and none of them worked so far...[M]ost people won't do that. Most people would say 'Why are you trying to do more work on it? I've had it, I'm going to go do something else'. And that's what happens to them. It's a big problem at the University. If you have an unresponsive institution it's really easy to discourage people, and there are a lot of people who are discouraged. If you have somebody here for life and they get discouraged, who's 45, they're going to be here for 15 more years, they're not going to do anything for you. And that's a big problem. And that's actually an institutional problem. I think lots of universities have that problem.

If the University's senior administration decides the latest proposal is worth pursuing, the next step will present new challenges in terms of determining who will be involved in implementing the inter-faculty program. Though George would be pleased to be involved on some level, he'd like to engage a broader audience. If you study the lists of people who were involved in GTC, the Sustainable Development Policy drafting committee and the College of Sustainability proposal, the same handful of names appear every time.

It should not go unsaid that though there is still a long way to go before shifting toward a learning organization, where the weight of transforming curriculum design at the University isn't carried by one person alone, UBC is doing a lot of great work. The positive thing about Policy No. 5, as Kathryn Harrison describes, is that “it created that Office, gave it some sort of seed resources”. It directed some attention to the University's responsibility to live and promote sustainability principles. In fact, since 1998, when the Campus Sustainability Office was first established, energy use in core academic buildings has been reduced by four percent and water use on campus has been reduced by 21 percent\(^5\). The Liu Centre for the Study of Global Issues and the C.K. Choi Building have both won several green innovation awards. The Office initiated a program to engage staff campus-wide as voluntary sustainability coordinators in their respective units to monitor transportation and waste disposal patterns, and last year piloted the SEEDS (Social, Ecological and Economic Development Studies) program, based on the GTC model. A new instructor in the first

year Foundations program in the Faculty of Arts, Freda Pagani has forged further academic links with the CSO. In 2001, the Office also began hosting biannual “Sustainability Circles”, interactive gatherings for faculty and senior administration, “_friends of Sustainability”, to discuss particular sustainability issues at UBC.

Reflecting on the impact of Policy No. 5 to date, John Robinson raised some important realities concerning the modern university environment during the interview:

_Sustainability implies a level of interdisciplinarity and a level of policy relevance and a level of partnership with community that goes way beyond what the University is able to support...So there’s a rhetorical shift that has been profound and there have been policies developed that have been quite important, but the internal structural dynamics of the system haven’t changed radically in the direction of supporting interdisciplinarity...We’re in a research intensive university where the highest prestige is attached to theory...except in applied areas, professional schools and so on. But in the other faculties, being applied is not necessarily...highly rewarded so sustainability implies a level of commitment to an applied focus that is not necessarily rewarded as strongly. The general view is...it’s ok to do it. It’s even seen positively, but only if you do everything else first, if you do the disciplinary work, ...the theoretical work, you can do the other. So it’s like a double jeopardy situation...[F]inding a mix is not the answer, it’s about doing more._

Regarding partnership with community, John Robinson noted that working with partners in the community as other than subjects or audiences creates new challenges for the institution. It’s very difficult for the University to go beyond studying people or communicating to them, and actually involve them in the work in a substantive kind of way, especially in problem design issues. The University just doesn’t have the criteria.

4.12  Digging Deeper

The remainder of this section primarily focuses on the voices of the participants and their reflections on the interview questions. I began all of the interviews by asking participants for their thoughts on the meaning of sustainability and referred to UBC President, Martha Piper’s speech at
the first Sustainability Circle event where sustainability was described as a “deep-seated internal shift in perspective”.

*Definition Issues and the Sustainability Debate*

Kathryn Harrison argued that the inability to act sustainably is due to a lack of understanding of what we mean by sustainability. Having attended the Sustainability Circle event where Dr. Piper had delivered the keynote speech, Kathryn reflected on the meaning of the President’s definition of sustainability:

I think she probably really meant that it was a deep-seated internal shift in perspective but whether in fact she or very many of us on this campus have really experienced that deep-seated internal shift in perspective is a big question. And I think it’s not the case. I think to a large extent we’re still at the stage of saying sustainability is important, or even before - at the stage of throwing the word out there as a motherhood word almost and not thinking about the implications for the way we operate at the university and for what we teach in our courses...And in part, I think that’s just the power of the status quo. It’s very hard for anyone to change their behaviour. In part, I think there are still very powerful incentives not to change our behaviour... And so I was struck that Dr. Piper came and she gave this speech, and she said all the right things, but she left. She didn’t stick around for the next hour and a half talking about what are the implications of this concept for planning on campus. And I understand that she’s a very busy person and it was even very nice that she came and said those things but it also sent very mixed messages - having her attend, talk the talk and then walk the walk right out of the building. So I didn’t actually take it all that seriously.

She also made the point: “Well, what isn’t sustainability? What do we do on this campus that isn’t? When you get to that point the concept is so diffuse that it’s very hard to tell anyone what they should be doing because we’re all doing it already...it’s really hard to figure out what sustainability means for us at the University.” Moura Quayle, Co-Chair of the Sustainability Advisory Committee and Dean, FAS, suggested that the University’s role in facilitating a shift in perspective is to increase dialogue. “It is to ensure that there is a dialogue about what sustainability means to us and that there’s a thread of that dialogue that occurs in whatever we do whether it’s our budget priorities setting process, our curriculum design, or our university structure.” Moura also noted the
importance of making “sustainability active and engaged in the governance structure of the university whether it be the Board of Governors or Senate, committees, faculty councils.” Tony Dorcey, Director of the School of Community and Regional Planning (SCARP), added that:

Sustainability has opened our mind to much more participative, less top-down and hierarchical types of decision-making...all of which is challenging very fundamentally deep-seated traditions in the university, which is a very hierarchical organization and has very distinct ideas as to who the elites are. [The University] finds it very difficult indeed to shift from top-down types of decision-making processes.

Alice Miro, an undergraduate student who coordinates the Food Co-op on campus, founded the residence recycling group and volunteers at the Student Environment Centre, discussed some of the benefits to linking university activities with sustainability:

Sustainability nowadays is a pretty hot word. Often I realize when you have to apply for grants and stuff like that, it's something you have to use in order to get money. So UBC being a sustainable institution I'm sure will attract top faculty.

Other participants commented on the nature of the university as an organization and noted the implications for shifting toward sustainability. “It’s clearly interdisciplinary, transdisciplinary in nature and we know from experience that that’s a tough thing for universities to do” (Tony Dorcey).

So I think one has to be really careful in terms of laying a trip on individuals saying 'oh you know you must do this in order to save the planet'. Well you know, one person, what are you going to do? You’re not going to do anything. But there is a collective, which then becomes an issue that will have an effect. So the question is where do you develop that collective? And it seems to me that the university, if the university is not that institution, then it ought to stop calling itself a university. It ought to call itself a technical institute. And that’s primarily what’s happened to universities is that they’ve become technical institutes in lots of different ways. Certainly in almost every science we are now just a technical institute as opposed to a university. (George Spiegelman)

Freda Pagani, Director of the Campus Sustainability Office, suggested that when the University begins to make a genuine shift toward sustainability “every individual in the University will treat social and environmental issues with the same degree of seriousness they do in financial questions.

And I think that we have a long way to go in that.”
Similarities existed among personal definitions of sustainability, such that most participants addressed the ecological, social and financial implications of sustainability, as well as their interdependencies. However, while some emphasized a need to balance all three dimensions, others preferred to focus on only one or two aspects. “The ecological is kind of the fundamental of it all.” “I tend to be less concerned about creating a three way thing and separating social and economic, because frankly, it seems to me the economy is part of social.” This demonstrated just how values-based and context-dependent the concept really is. Some participants noted that sustainability is more often associated with environmental issues:

When people speak of sustainability at the University, there's an immediate reference to green buildings and energy or saving the environment or managing the environment of the University. There has been little effort made in dealing with all aspects, broader aspects of sustainability. (Fred Pritchard)

anything that involves maintaining something that's important to a collective or a community in light of changes, alterations, lack of money, lack of initiative or whatever to me is sustainability. And this is why using the word just for environmental aspects is not really doing it total service. (Sid Katz)

Doctoral student and UBC Farm Coordinator, Derek Masselink explained why he has chosen to dispense with the word altogether:

I don’t like the word sustainability because I think it’s been co-opted. I think it’s a pretty wishy-washy word. I prefer the word health because it implies it’s a positive statement and it suggests that a number of things are working together towards a positive end. And it can be applied to a number of things.

Instituting a Sustainability Requirement

Since the creation of Trek 2000, UBC’s vision document, the University has been promoting an international requirement for all undergraduate students. 10 out of 13 interviewees felt that the University should also support a sustainability requirement. Most felt that this didn’t necessarily have to take the form of a mandatory course, but there could be a range of options. Experience-based options appeared to be most strongly favoured.
Sustainability offers opportunities for student involvement in the community. So yes, I think there should be a suite of potential options and a design of the curriculum such that you, in some middle fashion, at the very least are exposed to the concepts through having to do some of these things. (Tony Dorcey)

Moura Quayle suggested having a “flexible sustainability requirement” similar to the way the international requirement has different ways of gaining experience:

I think we should be pushing something like that...one credit or some way of a service-learning component...so I think that there should be a sustainability requirement...but I think we, in terms of the proponents of sustainability, haven’t really come up with a broad enough menu. (Moura Quayle)

I’m ambivalent on whether that should be a forced requirement because I’m not too sure that there’s a lot of benefit if people do it just because they have to. And it’s just a kind of condition of proceeding so a certain amount of lip service gets paid...You have to think of [sustainability] at two completely separate levels. There’s a substance level, usually centered around some kind of economic, social and environmental side to it. But there’s another level, a sort of procedural level and more and more I think of sustainability as the emergent of a conversation about periphery futures... And so, from that point of view, if you think of those two levels, what would we want students to know about sustainability? I’m not sure that giving them a single required course on the substance of sustainability would have much carry-over; however, maybe there are things that can be done on the procedural level...It wouldn’t have to be a sustainability 100 course necessarily. So I think some thought needs to go into what the nature of a common experience would be. (John Robinson)

I still like the idea of all UBC students at some point during their undergraduate degree at UBC having to think about the connections between economic development and environment and social justice. I’m less convinced that at this stage proposing a mandatory course is the way to go...required courses, on one hand, everybody has to get the material. On the other hand, they often get dumped down because everyone has to do it, unless it’s perceived as the core required course, but this will never be in most fields. (Kathryn Harrison)

Freda Pagani emphasized that the Policy in fact calls for a sustainability requirement. “It says that UBC will teach, learn and research about sustainability...The policy says that everyone at the University will at least be exposed to sustainable development values.” She also touched on the concerns some academics have about academic freedom and dictating curriculum content:

They see sustainability as an ideology, as a flavour of the month, and it’s not the University’s role to instill students with any particular ideology. And I don’t agree that sustainability is an ideology...I think it’s a value. Just as ethics is a way of doing things I think sustainability is just a way of doing things. While the University doesn’t extensively teach values it certainly holds them and I would say instills them in its graduates.
Rather than have a requirement, Derek Masselink expressed that “[sustainability] should be implicit in everything that we do – whether we teach, or the projects that we undertake on the campus, how we run this place.”

“Sustainability leaders” – What’s the Evidence?

During her speech, the President discussed how all UBC students will graduate as “sustainability leaders”. I asked participants to reflect on the evidence – how would we know? What emerged from their responses was a showcase of innovative programs taking place on campus, as well as concerns with the leadership language.

Considering the potential for implementing an optional graduation pledge at UBC committing students to pursue socially and ecologically responsible employment, Freda Pagani suggested that “if we did have a graduation pledge as an option, we could see how many students are willing to sign that. And that would be some evidence that at least they were thinking about it.” Participation in other activities on campus like the bike co-op, the food co-op, having an undergraduate and a graduate student on the sustainability advisory committee, and the SEEDS program were also suggested as demonstrations of sustainability leadership. Other ideas include:

- surveys to assess what students were interested in doing when they started university and when they were getting out of it; what kind of role they saw or see for themselves and if that role has changed. Because right now, I think we’re educating for upward mobility...and I think we need to be educating for citizenship. (Derek Masselink)

One of the things that we’re doing with our tuition, our undergraduate tuition increase, is creating a Land, Food and Community Innovation Fund for students. So if a student in Food Science wants to do an undergraduate thesis and wants to connect to an Agro-ecology student and wants to do it at UBC farm but needs a bit of equipment or supplies or whatever, they can approach this fund and that can be facilitated. So to me sustainability leadership is about understanding that you don’t solve problems on your own, and so you don’t want to do your undergraduate thesis just by yourself sitting in a library. You actually want to engage other people. (Moura Quayle)

Kathryn Harrison expressed her concern with the language of leadership:
[T]here's something elitist about the leadership language that always makes me nervous, because partly what it does is, most of us aren't going to be leaders or we're leaders all the time at different parts of our lives. And what I think we should be doing is inculcating a sense of responsibility as citizens and values of citizenship, rather than leadership. And some people will inevitably be leaders but what I want is the people who aren't leading to not think that the pressure's off them, or that you know they don't have as much to contribute because they're not 'the leader'...

How would we know that students are graduating as sustainable citizens? Kathryn Harrison responded, "I think if we ask the students, they would be able to tell us." Alice Miro reflected on her role in promoting sustainability at UBC as:

I see it as creating an interest and talking to people. In the past I used to be negative, because if I were to meet a guy somewhere and he would say 'I'm in commerce', I would say 'ok, I have nothing to talk with you about. I'm in environmental science. Bye-bye'. But now I think maybe that's not the right approach. And now I actually have a lot of friends in commerce and international business and realize that I have very different views... Actually I like the fact that I am able now to sit maybe for a beer with these people and talk and I get to see their view and they get to see my view. Also I would see myself as being an example to my peers and talking to my friends and try and work at the level of my peers.

Assessment Challenges

On the topic of methods for assessing how well Policy No. 5 is being implemented in terms of curriculum design and community engagement, initiatives like Humanities 101, Science 101, and Music 101 were recognized as positive indicators, as were UBC's Innovative Learning Programs: Arts One, Science One, Coordinated Science, and Foundations. Reflecting on the academic implications for practicing interdisciplinarity, Alice Miro shared the following experience:

I was talking one day to a commerce student from Germany and he explained to me how commerce and environment really go together in Germany...two disciplines that are for so many years integrated. And this is something that we don't see at UBC yet.

Regarding assessment tools, Board of Governors member, Erfan Kazemi, suggested that UBC could follow the format of the unit plans designed for Trek 2000 and the new tuition policy, which include specific criteria. There could be specific criteria for the Sustainable Development Policy, and
all Vice Presidents would be required to demonstrate in their “report cards” how their portfolios meet the criteria on an annual basis.

John Robinson felt that fostering greater institutional support would be the first step toward a potential assessment process:

because there’s no body or committee or agency charged with this, right? So the closest there is is on the operational end with Freda’s office and that’s a great thing. I’m a huge fan of what she’s doing and what they’re doing. But we don’t have anything like that on the academic side...We don’t have any institutional commitment at the level of curriculum or community engagement.

Similarly, George Spiegelman expressed that:

there isn’t a sustainability agenda at this University. There’s a waste reduction agenda which is what people in Plant Operations are doing...I mean they’re doing reasonable work in terms of trying to move an institution which is part of an economic system that has no control. Because the institution has become locked into the whole system, the economic system, it’s almost impossible for it to have a sustainability agenda. A sustainability agenda is anti-corporate, bioregional, it’s not international...if your measurement is that the people here are world-famous, you get world-famous by travelling. And so people here who are world-famous spend huge amounts of time in other places. They don’t have any time for home. So who takes care of UBC? And if you don’t have people who take care of it then you can’t build an agenda, because there’s nobody to do it. And that’s fundamentally what the problem is in the curriculum issues. Having done this now full-time almost for five years I can tell you the problem is not that the administration doesn’t want to do this, it’s that they don’t have the people, the faculty, or staff to do this. And they are not attracting the people because they are attracting people whose fundamental job description is “Go somewhere else,” “Don’t stay home.”

George also noted that we’re too busy doing too many things. His department, made up of 15 faculty members, has started 9 companies in the last 8 years during which only one new course was developed. The University isn’t saying “you ought to be teaching”, in fact, entrepreneurship is encouraged.

Derek Masselink emphasized the role students can fill in assessment processes, especially if sustainability is central to their studies, and made the point that “students who are kind of trained in this area become incredible watchdogs and actually take on the responsibility. If things are going
well and you're giving them tools and you're opening their eyes to these possibilities, they become advocates and they become the people that push the faculty to move harder on the University.”

*Thoughts on Institutional Change*

Many respondents used this question as an opportunity to express their respect and appreciation for the work of UBC President, Martha Piper. Executive Director, Community Affairs, Sid Katz felt that institutional change happens with a very strong vision and with leadership. “I think that that’s what Martha Piper represents...I think the University in general has always isolated itself and here’s an issue where we have this president who has done a remarkable job in the community, trying to get us more engaged.”

I think one of the most effective modes of change is to model what you want to see others doing. So you demonstrate how you make decisions, you demonstrate the nature of the decisions, what you feel is important and that can have a profound impact on people. I think that has more impact than mere talk about things. I think Martha’s a classic example of that. She practices what she preaches all the time and it’s very effective. (Tony Dorcey)

Some participants discussed how institutions need to be ready for change. Change cannot be imposed. Though support from the top is required to ensure adequate resource allocation, to be effective, change can’t come from the top alone. It is just as much a bottom-up process. Though it may cost us our future to some degree, effective change requires time and begins with small, incremental successes.

Trying to bite off big sweeping changes, in my experience, particularly in the university, seldom works very well. The backlash can be enormous and you’re more likely to choose an appropriate path if you move more incrementally. The down side of that of course - are we going to be around long enough to make changes? (Tony Dorcey)

Many participants reflected on the hierarchical and risk-averse nature of the University as an organization:

This place is a very frustrating place to work in. It’s probably one of the most frustrating places I’ve ever worked in, because it’s very slow to change and doesn’t accept change very well, especially from non-academic areas. When you try to do something different it’s very
difficult, because it implies a lot more work or it might not work out. There’s a level of risk involved. (Derek Masselink)

Now UBC...is so wedded to the kind of old boy system of closed door decision making. But quite a lot can happen through informal processes. Unfortunately, it’s not a very transparent or scrutable process. (John Robinson)

Universities are very slow to change. The times it does change are when something catastrophic happens - when the public has concerns or there’s light shown on a certain issue. (Erfan Kazemi)

Erfan Kazemi discussed how change in the University is necessarily incentive-driven. He reflected on the significance of the Maclean’s report on Canadian universities to a university’s reputation, and suggested that the inclusion of a sustainability component in the Maclean’s evaluation would encourage buy-in. He also noted that if the institution has the potential to be a ‘first’, i.e. the first ever in Canada, or the first ever in BC, it peaks interest and stimulates change. Change occurs when the effects are seen to enhance the University’s reputation - a potential image booster. Reflecting on more fundamental change, Erfan concluded his response with the question “How do you get students to really care about it?”

On the question of organizational change and plans for implementing the Sustainable Development Policy, Freda Pagani described the strategy in place as target setting:

What the policy actually calls for is every unit on campus to develop targets and action plans which is standard policy. But now I’m faced with how we can implement that... It’s an administrative burden on people to develop sustainability targets and an action plan. And I know that department heads aren’t going to do it just because it’s called for in the policy. In fact we haven’t had a single department head come forward and say “I want to do this”.... For most departments, not for all of them, but for most departments it’s very much a question of not using paper cups, trying not to use paper, trying to double-side, basically all of the things we’ve already been trying to get up and running through the Sustainability Coordinator Program. So we will probably have a template that says “These are some things you can do”, two or three basic actions and “Are you willing to sign on?”

On the Role of Policy No. 5

Many participants noted a lack of awareness about the Policy among members of the university community:
At the student level, I don't think students know enough about it yet. I don't think that it's been promoted enough. I don't think that it's been used yet enough. (Alice Miro)

What role it does have is almost none. The vast majority of faculty members, 99.9% of faculty members, aren't aware we have a policy. My guess is that most administrators haven't read it. I think that Freda's office is doing some wonderful things. I think the positive thing about the policy is that it created that office, gave it some sort of seed resources. (Kathryn Harrison)

Conversations were also oriented toward the Policy's accomplishments:

I just think it's something down on a piece of paper that they can point to and say “Look this is what we've done”.... I don't mean that as a criticism necessarily of the University. I think we're very good at writing things down, and we're not very good at actually following through and doing it. (Derek Masselink)

I think its heart is in the right place.... In terms of what I consider to be the finer issues for the University, which is their consumption of raw materials and things like that, they're doing actually a reasonably good job. And I think they deserve credit for it, but they don't deserve to have that be sufficient cause for not doing something about the rest of what the University is about. So as far as development's going, it's not so bad! (laughing). As far as sustainability's going, they're not really contributing. (George Spiegelman)

Sid Katz linked the role of the Policy to the role of the University in the community:

Well I think it's to show by example, to show that we're going to put our money where our mouth is. But it's one thing to be able to be on the leading edge of research and there's another thing to prove that we can actually keep our own act together. I think it would be terrible if there's more garbage coming out of here per person than there is downtown.... We should know better.

Business, Sustainability and the University

The last part of the interview focused on the impact of entrepreneurial, market-based trends in higher education on the role of the University and the effective implementation of Policy No. 5. Unsurprisingly, there were significant inconsistencies in the responses.

Some participants began by reflecting on the university's cultural role in society. “I think it’s fundamentally a public goods-creating institution.” John Robinson continued by describing the role of the university as the long term cultural project of civilization:

I don't think of the university as a business in any significant way but I think getting business involved in sustainability is indispensable.... So I have no problem working with
business. I have a lot of colleagues who do, so this isn’t a majority position at all. On the other hand, the university I don’t think should see itself as a private-sector organization at all. It has to engage with the community more, it has to engage with business more, and so it needs firewalls and protections. If we’re going to do all this partnership with business we better be very clear that we don’t sell our soul.

Alice Miro also emphasized the need to have strict guidelines and clear limitations for obtaining corporate support. She suggested the need to revisit our institutional priorities:

[T]he university is a business because it has a deficit. It has money coming in and coming out, but it should be conscious of being an academic institution first. I think the institution needs to work on its priorities and make sure the business doesn’t take over the academic.

Tony Dorcey felt that most universities have already evolved procedures for making decisions to protect the institution from the worst abuses of partnership with business:

I think we have immense freedom to protect ourselves as a university as long as we choose to do it.... I think that’s only a problem if we let it be a problem.... I tend to think that people see far too many shadowy figures and ghosts than there really exist.

Some participants commented on the discrimination that can occur toward business:

I don’t see corporations as the bad guys. I think to rail against the corporatization of the University is disingenuous and superficial. It’s another form of othering that is as unproductive. (Margo Fryer)

Fred Pritchard felt that business and sustainability are completely compatible concepts and described the University as a business in the sense that it delivers a commodity:

The commodities we deliver are students.... [O]ur market is the students that want to come to UBC. It’s a business not only of students, but today in research. A successful university has to be well managed. It is like a corporation. It’s not a bad thing.... It’s the business of helping communities grow, and it is the business of helping the nation grow.

In contrast, George Spiegelman elaborated on the issue of entrepreneurship and research at the University, and drew from his personal experience:

I don’t believe anybody at the University has any justification for starting a business. If they want to start a business, cut the apron strings, quit, leave, start your business.... If you’re here you’ve got a full time job guaranteed for life. If you have time on your hands, teach another course, and I’m a radical on that. I’ve got no problem with businesses...perfectly legitimate thing to do. There’s a huge problem with corporations, but as far as the University is concerned, we just shouldn’t be involved. I mean I had lots of people who wanted to do things with me financially in terms of business. I work on a biological system
that a lot of people are interested in - not many people work on it. It has lots of applications in terms of biotechnology. And I just wouldn’t do it for anything. And I could easily triple my salary in a week because I have a standing offer to go down to the office of some dopey CEO of some kind of big company. But it’s stupid, you know? That’s not what I got into this job for. And I could probably do it part-time (laughing) and the University wouldn’t even know! But it’s just the wrong thing to do. If I were going to do that, I’d resign. It would be the only honourable thing to do and that’s what we’ve got to do. So is the university a business? The university is a business in a sense. When you get to the administrator in an institution like this, there is a certain amount of just keeping the damn boat afloat. And that is a problem when in some sense the boat ought to sink (laughing) because it’s doing the wrong thing.

Freda Pagani identified conflicts between a business agenda and the teaching and research priorities of the University:

Well it is in some sense a business, isn’t it? If you think of students as products, or education as a product. There’s a product and there’s money exchanged and money comes from different sources. It comes from the taxpayers and from students. But it’s not a business in the traditional sense of a business, I don’t think...And its roots don’t lie in that area at all. And it has a very different purpose than a business. The purpose of a business is to make money and the purpose of the university is not to make money. It’s to educate and research. So yeah there’s some slight similarities but really it’s a profoundly different thing...Certainly in the teaching and research areas of the university it’s not at all applicable.

Derek Masselink saw direct conflicts between business and principles of sustainability and emphasized, “We’re trying to nurture citizenship in our students. We’re not trying to produce a product.”

On the issue of corporate presence on university campuses, half the participants discussed UBC’s exclusive contract with Coca-Cola:

So Coca-Cola comes in here and says ‘you’re already selling all these Cokes, but if you just make us exclusive sponsor, we’ll give your scholarship fund so much money’. Then the decision has to be made as to whether this is the right way to go. That’s where boards of governors come in and try to make those kinds of decisions...Do [universities] make any compromises in their education, in what they offer the students, and in terms of the type of research going on? Those are the kinds of questions that are important to ask. So I’m very concerned because I think that the corporate presence at best could lead to compromises.... I’m very fearful of the corporate involvement with the University. (Sid Katz)

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20 Five out of eleven participants who answered this question discussed UBC’s partnership with Coca-Cola.
To refer back to the notorious Coke deal, I don't think that's got much to do with sustainability. In fact, it is a conflict with sustainability. The University has done that basically for money. So this is where I think the University has to be really careful about its making decisions that are solely in financial interest and not in social, environmental interests as well. (Freda Pagani)

Dependence is another concern. I think we've experienced that here at the AMS, when we were using the funds from the Coca-Cola agreement and found out that we became so dependent on it that we required it. Without cutting our services, we needed the funding. So there's dependence and then there's direction...If you're able to avoid those two, it's fantastic, but more likely than not, one of those two is going to come into play. (Erfan Kazemi)

I'm quite keen on working with business as partners, but that's a little different than Coke being the exclusive supplier. I'm not interested in that at all, but that's not the kind of partnership that I'm talking about. I'm talking about partnership where we both have the same goal here. I'm not a big fan of fundraising. I'm a big fan of partnership...So when you come down to these corporate endorsement things I'm actually not a fan of that at all, exclusive licenses and all that kind of stuff. That doesn't advance the university agenda at all except to provide income. On the other hand, it may not constrain that agenda either. So it's not like I think they're inherently evil, I just find them pretty distasteful. I'd rather do without all of that stuff...So I'd put all of that corporate sponsorship stuff in another category, and say 'surely we can do without that'. It's the wrong message. And there is a sustainability dimension to that because it's about consumption, right? It's about branding. The consumer mentality and over-consumption are supported by those so for those grounds as well I’m not a fan of those kinds of things. (John Robinson)

Freda Pagani also emphasized the potential for partnering with businesses that share the same goal.

“I think there are potential synergies with businesses that truly are attempting to be sustainable, where the University can help them reach their sustainability goals and they can help the University.”

4. 13 Summary

Though participants were asked to grapple with deeply charged, complex questions, the conversation and opportunity for reflection seemed to be appreciated by most. “For me this is a great joy to be able to sit and talk like this,” commented one participant.
It was evident from the interviews that the Sustainable Development Policy suffers from a lack of awareness at the University. The Campus Sustainability Office, responsible for overseeing the Policy, is recognized for doing good work by most, but many feel that its scope, primarily operations-based, is too limited to generate real institutional shifts.

Though the term remains open to interpretation, the interviews suggest that there is some consensus about the social, ecological, economic and governance implications of sustainability as well as their interdependencies. On the issue of instituting a sustainability requirement for undergraduate students, most participants agreed that there should be a requirement, though this needn’t take the form of a mandatory course. A menu of options could be developed from which students could select a course, conduct an interdisciplinary project or participate in an experiential learning activity such as the SEEDS program.

In general, participants agreed that institutional change cannot be imposed. Universities are typically slow to change and risk-averse, though many interviewees praised the President’s leadership and efforts to effect positive change. Pockets of promising initiatives exist at UBC, which serve as evidence that the University has the ability to change its way of doing things, supported by pools of in-house talent.

The question on business generated conflicting responses. Participants associated notions of business and corporatization with responsible management, efficient processes and financial stability, as well as privatization, entrepreneurship and profit-making. Responses varied as participants discussed both the compatibilities and incompatibilities between their understanding of business and the concept of sustainability.
4.2 Towards a Transformed Faculty

"If you’re going to choose me, you’re going to choose change.” In June 1997, Moura Quayle accepted the position of Dean, Faculty of Agricultural Sciences on the condition that the Faculty was ready for change. At the time of her appointment, the Faculty as a whole was facing declining enrolment and a lack of profile and relevance. What she saw was an opportunity to focus and accelerate change toward a common vision for where the Faculty was going. Professor Art Bomke noted that, “It was obvious it would have been either very much a status quo situation or it was taking a chance - taking a risk on a new direction. And so we went that way.”

Once appointed, Moura met one on one with as many faculty and staff members as she could - a luxury, she described, of working in a small faculty\textsuperscript{21}. They told her they were tired of navel-gazing, visioning, and over-facilitated processes. The new Dean also debriefed with students, campus colleagues, alumni, industry, community and government contacts. After taking some time to reflect on what she had been hearing, she was ready to initiate a process, committed to a vision of community building, where no one department, no one person within the Faculty was going to solve the problem. The process started with developing a “scenario workbook” which set out firm deadlines and put the ball in the court of faculty and staff members to rethink the direction of the Faculty. Moura also established a core support team consisting of the department/unit heads at the time. The workbook was distributed at the first community meeting in early September 1997, and staff, students and faculty were asked to group together and form “learning-thinking-working circles” to review, revise and expand on the scenarios Moura had outlined in the workbook. Regular community meetings were held to encourage dialogue and feedback on the progress of the circles and fuel momentum. The workbook was also distributed among alumni, government, industry and community representatives who shared their feedback during facilitated breakfast gatherings and
virtual meetings on-line. Adhering to the proposed deadlines, an Action Plan was developed in November 1997, which reflected the work of the circles and feedback from the community.

The Plan outlines the Faculty’s core values, principles and vision, and states that sustainability is a dominant focus of the Faculty and refers to UBC Policy No. 5. Brian Holl reinforced this point: “what we did consciously think about was that sustainability was the underlying principle behind what we were doing...it was really a common thread that ran through the series.” Listed as an agreed-upon core value and principle, sustainability is described as integrative and interdisciplinary:

All activities of the Faculty centre around sustainability, including research agendas, learning programs, administrative systems, human resources and budgets. All decisions we as a community must make should be grounded in our efforts to be sustainable. Sustainability means many things to many people – to us it essentially means trying to balance ecology, economy and community to provide for a positive future. (Faculty of Agricultural Sciences, 1997)

The Action Plan also emphasizes community partnership, an evolved administrative structure and a new academic orientation. First to change was the Faculty’s administrative structure. Departments were dissolved and more flexible and efficient administrative teams and academic programs based on themes (Global Resource Systems, Food, Nutrition and Health, Agro-Ecology, Community and Environment) were proposed and approved by Senate in March 1998.

Next on the drafting table was the faculty’s academic core – the courses required by all students in the Faculty regardless of their specific program/major. Entitled “Land, Food and Community (LFC),” the vision of the series of courses emerged from the core values of the Faculty. As Professor Alejandro Rojas described, “Our mandate was that we need to educate this generation of agricultural science students insisting responsible citizenship towards sustainability.” Though Policy No. 5 is included in the Faculty’s Action Plan and sustainability is listed as a core principle, when I asked about the role of the Policy in the design of the Faculty’s core curriculum, however, one faculty member felt that it didn’t have an impact. “I think from the point of view of the Sustainable

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21 The FAS has 55 faculty members and 1000 undergraduate and graduate students.
Development Policy, I don’t recall it having any particular contribution in terms of curriculum development because of the stage we were at.”

Students learn about the core values of the Faculty by participating in an “Introduction to the Epistemology of the Land, Food and Community Series” as part of the curriculum. Essentially, the interdisciplinary content of the LFC series connects the principles of sustainable food production to land, food and communities. Retired Professor, Brian Holl noted that “this was the really exciting part of the vision – the idea of integrating the process from land management right through to health and food consumption.” The series currently consists of four mandatory courses, one offered in each year of the agricultural sciences’ degree.

Given that the series is required by all students in the Faculty regardless of their specialization (Food Science, Resource Economics, Agro-ecology, Dietetics), faculty representatives from every program were involved in the design of LFC, some more willing to participate than others. The series continues to face some resistance, however, as some faculty members remain very protective over curriculum issues.

The core series had everyone involved. And we had a lot of arguments about that. There was not an enthusiastic reception to have nutritional sciences and dietetics and all these other people in all of the core courses. They didn’t want to be there. The profs weren’t necessarily enthusiastic about the idea because what it did was it filled in a lot of credit value. How can we offer our other 26 or 50 credits if we’re using up all this core stuff? (Brian Holl)

Another area of resistance is the introduction of Problem-Based Learning (PBL) as a new learning methodology, common in professional schools like medical and business programs. PBL focuses on group work and peer learning, where a case serves as the instructor, eliminating what Associate Dean, Dr. David Shackleton, calls the “traditional talking head phenomenon.” As a result, PBL requires “a whole new set of skills for the instructors to learn.”
4.21 Curriculum

The series offers a mix of learning environments ranging from PBL through to what Professor Brent Skura calls a “community of learners”. Only one LFC course is taught entirely using PBL. The others rely on a “hybrid” design, combining PBL and more traditional, lecture-based methods. A significant emphasis is placed on group work throughout the series, however, to encourage cross-disciplinary collaboration among students from a variety of specializations. Course content and assignments tend to have an applied focus based on themes such as a food security project in which groups of students in the first year of the series partner with community organizations to explore food security issues in Vancouver. During the first offering of the final course in the LFC series, student teams studied different aspects of the University’s food system and provided recommendations to the Campus Sustainability Office. Their assignments are published on-line, to be further expanded and enhanced by future generations of students in the LFC series as an on-going effort to study and develop a sustainable food system at UBC. The idea of building “collective memory” through course assignments is a key element in the series’ curricular design. Other assignments are designed to encourage thoughtful reflection on the course material, such as an experiential and advocacy journal in AGSC 250. Midway through the first course of the series, students are also asked to provide feedback on the course and the instructors in an ungraded, mandatory secret letter. Staff and faculty from other departments on campus also contribute to the LFC curriculum. UBC Student Services staff, for example, have delivered in-class workshops on intercultural communication, career portfolio development and life-long learning.

4.22 Student Reflections

The students I worked with in AGSC 450 last year were the guinea pigs of the series - the first group to take these courses. I often sensed a lot of frustration among the students, as many would
question the purpose of the series, though it was apparent in the questionnaires and the video reflections that students were clearly aware of the concept of sustainability and the central focus it holds in the series. One day, a student approached me during a tutorial to ask if I knew whether all of the TA’s and the course instructors who teach sustainability, practice sustainability principles in their everyday lives. She expressed a sense of disempowerment, feeling overwhelmed with all the things she should be doing for sustainability and the necessary lifestyle adjustments.

Some students in the more specialized and competitive programs like animal science (en route to veterinary medicine) and dietetics questioned the series’ relevance to their ability to succeed in their respective disciplines and meet professional requirements. Nonetheless, the message was consistent among the students who participated in the video and completed the questionnaire: LFC was unlike any other course.

When asked to reflect on the role of the LFC series, students responded that the series had opened their eyes to a bigger picture. Students concluded that LFC is about everyday-life knowledge, developing a conscience, and learning how to learn. Graduates advised new students: “Don’t be taught, discover on your own. Discover your own path.” “Keep an open mind.” Some students expressed that the series had changed their lives and the way they look at the world. “Sustainability is about everything we do.” “There isn’t one definition of sustainability.”

“Sustainability is inter-subjective to everyone.” Most students expressed that they had never heard of sustainability before entering the Faculty, and now upon graduation they feel it is their mission to educate others about sustainability. “I was a total rookie coming here, now I feel like an expert. A constant focus on sustainability has driven the understanding to the heart of my body.”

On the topic of UBC’s role in promoting sustainability, students noted that no one person, no one department can do it themselves – every department has a role to fill. One group commented,
"If you’re going to talk the talk, you have to walk the walk." Mixed messages, however, emerged from the questionnaires:

I think the UBC campus is not very sustainable, and thus this hinders my understanding of sustainability because it seems like what we learn here is not practiced.

UBC is a university that has made great efforts to promote sustainability as an important topic to be considered (i.e. sustainability office). I feel that had I gone to university elsewhere I would not have been exposed to sustainability issues.

Before coming to UBC, I did not know what sustainability was. I give all credit to my UBC education for informing my understanding of sustainability.

Some students provided very thoughtful reflections on their current and future contribution to building a sustainable future:

I try to contribute to sustainability in the ecological sense by recycling and limiting the amount of waste that I produce. I try to limit my consumption, and have recently decided to try harder to emphasize the use of second-hand and pre-used consumer items in my day to day life. When stopping for food, I try to buy locally when possible and organically when affordable. I am hoping to make it through life without ever owning an automobile, particularly if I continue to live in an urban setting. I try to contribute to sustainability on a social level by participating in and supporting political movements for social justice on both a local and global level. In the future, I hope to continue to contribute to sustainability by maintaining the actions described above and by incorporating these sorts of ideas into whatever field I end up in the work force; most likely as an elementary school teacher.

One student said they contribute by “helping to make UBC more sustainable.” Another reflected on how “group work and PBL cases have definitely contributed to being able to appreciate cultural diversity.”

Reflecting on the impact of LFC on their roles as sustainability leaders triggered a wide range of reactions. While all participants described themselves as having some knowledge of sustainability, some didn’t feel like leaders, and others identified themselves as educators and experts of sustainability:

I don’t see myself as a sustainability leader yet – I’m still learning about sustainability.

While I probably wouldn’t define myself as a ‘sustainability leader’, I feel that the LFC series has contributed to my understanding and/or awareness of sustainability issues to the point where, in
certain situations, I feel as if I can be a valuable resource (in terms of providing information and leading by example) to people who have an interest in sustainability.

The responses of some students expressed a high level of confidence in their knowledge of sustainability:

Graduates from this program are among the world’s experts in sustainability and holistic thinking. Even if our careers do not lead us into a teaching/educational role, we should share our knowledge with colleagues, family, friends...

I am one of the few informed citizens that has been introduced to the concept; it is taken for granted/not even thought about by many people; I am a source of information and education on the subject.

Other students suggested a lack of faculty-wide integration of LFC, as well as disciplinary barriers to sustainability:

My role would most likely be raising awareness. I do realize that in recent years sustainability is the buzzword in many people’s discussions. However, that buzz is only limited to agriculture and agri-related areas and community. People outside this community are still lacking the understanding of the issues.

I consider myself a ‘sustainability’ leader. As for 95% of FNH students, they could care quite a bit less... Ensure that students taking LFC want to be here. (original emphasis)

I think I understand ‘sustainability’, but I’m not a leader. The leaders of sustainability would be the agro-ecology students because that’s who the LFC series is catered to.

For further student reflections, please see attached video: “Land, Food and Community – A Case Study” (Appendix III).

4. 23 Conclusion

The transformation of the Faculty of Agricultural Sciences at UBC to date is based on developing capacities for learning; creating a shared vision and a community of learners, where students, staff, faculty and community learn together. As doctoral student Derek Masselink explained, the process was driven by “a Dean who is very interested in shaking things up, not opposed to change, who respects and has a lot of trust in people with ability.” Moura’s leadership
was and continues to be a driving force. Retired professor and Chair of the LFC Curriculum Implementation Team, Brian Holl added:

I think that it's a remarkable tribute to the Dean and to the Faculty that are here now that this change actually took place in a context of the University that's largely been shrinking like mad. So to do what has been done here given the resources has been quite remarkable. I'm not sure the university administration realizes how remarkable it is...I think if you look at the extent and the quality of change that has taken place, there are not many examples of that sort of situation in academia, certainly not in recent years.

The transformation process and the development of the LFC series, based on principles of dialogue, feedback and learning, has had a positive impact on many of those involved in the design process, such as graduate student and teaching assistant, Katie Nolan:

I think that being involved in this process has helped me to de-program a lot of what I came in with because of my previous experience in education. I've always considered myself kind of an open-minded person, but I'm way more open-minded now.

To this day, however, not everyone is on board and attendance is minimal at community meetings. Once again, the same faces appear almost every time. In addition, curriculum issues continue to plague the Faculty. The feeling among some students is that the LFC series is catered to Agro-ecology students who have more exposure to sustainability issues in their program compared with other programs like Animal Science and Dietetics. Though some might argue that the concept of sustainability implies a strong ecological focus, there is no better word than sustainability to describe the interconnections among achieving social equity, economic viability and ecological integrity. As a result, the work of building a sustainable future cannot be relegated to one particular discipline. It necessitates the full participation of all academic disciplines. David Shackleton reinforced that the challenge of LFC is ensuring that it does not exist in isolation from the other parts of the Faculty. This raises the question, "who teaches LFC?" Currently there is no rotation among the course integrators. Though there is an effort to conduct faculty-wide consultations regarding course design, since its inception, the series has been instructed by the same group of people. That said, it is still early in the process. AGSC 450, the last course in the series, was only
offered for the first time last year. The learning process continues within the Faculty and work is being done to better connect the process and content of the LFC series with all programs in the Faculty.

The speed and degree of change that the Faculty has experienced since Moura’s appointment is truly remarkable and the time required to learn and adjust will surely vary among individuals. Brian Holl emphasized, “[w]e probably had more change in this faculty in the last five years than most faculties have in five decades.” Reflecting on the process, he advised:

Start sooner. Go slower. I would love to have started this process ten years ago and then I would have had the energy left to enjoy it. I think the practical lesson is that it probably should have gone more slowly. I’m not sure it would have made it any better. It might have made it a little less painful for some, it might have been a little bit easier to introduce. But I think given the circumstances, we probably did it the best way.

Further learning will also require developing meaningful criteria and methods for assessment. “I think that’s probably the biggest gap in everything we did. If you look at any of the stuff on change it always says, figure out your plans and how you are going to measure.”

Reflecting on the impact of the Faculty’s transformation process on the wider university community, the Dean wrote in a personal reflections paper that “[w]e should be in experimentation mode during our transformation, taking the opportunity to help the University chart new paths in demonstrating values, re-defining work places and making innovations in course content and delivery” (Quayle, 1999). While it hasn’t been determined if enrolment has increased as a result of the Faculty’s new direction22, may the transformation be ongoing and serve as learning inspiration.

22 Undergraduate enrolment in year one of Agricultural Sciences has increased from 183 students in 1995/1996 to 294 students in 2002/2003 (Planning and Institutional Research, November 1, 2002, www.pair.ubc.ca).
When you come close to selling out, reconsider. (Leanne Womack)

This chapter reflects on what might be learned from the case studies and discusses the implications for organizational learning at UBC based on the insights on sustainable citizenship education explored in Chapter 2, as well as the organizational learning capacities and infrastructures discussed in Chapter 3. I touch on some of the promising initiatives already underway at UBC, and the chapter ends by sharing insights into the beginnings of a theory of action for sustainable citizenship education and suggests a series of next steps.

In the beginning, I had set out to develop a set of sustainability indicators or criteria for evaluating curriculum and community engagement at UBC, based on my discussions with Freda Pagani and Brian Sullivan. In the end, after a great deal of reflection, I resisted the suggestion to develop evaluation criteria. I felt that developing concrete, workable criteria necessitates the participation of a larger audience in a much larger conversation than the one offered through my research methods. The thesis, rather, attempts to generate "the right questions", one of the steps outlined in Angelo's guidelines for learning communities, to help guide the conversation. The selected research methods were intended to yield insights into why the university operates as a knowledge institution rather than a learning institution and the possible barriers to becoming a learning institution rather than develop quantifiable measures.

5.1 Reflections

So technically you'd say that UBC has undergone this shift because it has a sustainable development policy, right? But I think in actuality the institution still has a way to go before it will shift. (Freda Pagani)
The depth and scope of Policy No. 5 demands the attention of a broader audience as well as the development of organizational learning capacities in order to shift from content to action. It suggests a transformation of the University such that a sustainability perspective informs all campus activities. “Learning required in becoming a learning organization is transformational learning” (Kolman & Senge, 1995: 37). Based on the outcomes of the interviews, the theory currently in use on campus does not reflect the theory espoused in the Policy. This is not an argument for abandoning the operational work of the Office, but rather a plea to revisit and reflect on the purpose of the Policy:

- to enhance the capacity of the university to teach and practice sustainable development principles, to increase environmental literacy and to enhance the understanding of environmental ethics among faculty, staff, students and stakeholders...[T]he policy’s goal is to integrate sustainable development into all university activities. UBC would become a model community that practices sustainable development principles and instills these values in its graduates and employees, by means of a unique blend of research, teaching and practice. 23

The Campus Sustainability Office has accomplished a lot in its short four years and its efforts were well recognized in the interviews. While some members of the university community feel that its scope is too limited, others may think that it is perfectly acceptable to house the sustainability office within the operational corner of the University. In fact, some might argue that it should maintain an operational focus as it would likely generate the most tangible, quantifiable outcomes in terms of waste reduction, water conservation and energy efficiency. The intention of the original policy proposal, however, was clearly both academic and operational, for at the core of the University is an academic mission of teaching, learning and research. But, sometimes the greatest intentions are lost amidst rigid bureaucratic institutional processes and relegated to a distant corner of the institution. In addition, the Policy needs to be updated to reflect the changes that occurred

since its inception. (It still includes, for example, an Ombudsperson for Sustainable Development as well as the Greening the Campus program in the policy procedures.)

Language issues generated some concern among participants during the interview question regarding business and sustainability. Some participants were concerned that terms like products, consumers, customers and commodities of education are taken too literally. The language we use, however, is a reflection of our mental models, the lenses we use to see the world. Without context, using market-based terms to qualify the activities of the University may narrowly define the institution. Metaphor can be a powerful tool as it reveals the ways we make sense of our lives and communicates whole systems of meaning (LeBaron, 2002). In other words, "[metaphors] are windows into who we think we are, our purpose, and our approach" (Ibid: 184).

Organizations tend to develop metaphors which are generative of diagnoses, inventions, and actions taken in response to various kinds of situations. Such metaphors are more than decorative figures of speech; they are actually generative of the ways in which situations are framed, phenomena are modeled, and options for action are described. Often these metaphors are tacit, or have entered so fully and implicitly into organizational life that they no longer come to attention. (Argyris & Schon, 1978: 317-318)

Critical to the institution’s transition to sustainability is defining what kind of change we mean when we call for it, along with what’s driving it. What are our intentions? Is this a genuinely shared vision, an active commitment to model the skills and knowledge we hope to cultivate in students? Or, are we primarily concerned with developing a vision statement, a written commitment to enhance the institution’s image and reputation? Perhaps it is both. A learning organization, however, actively builds shared vision, as demonstrated in the FAS. Though the Faculty is still experiencing some growing pains in its transformation, the espoused theory in relation to LFC and the theory in use are very much aligned.
5.12 Learning Implications

If we view the implementation of Policy No. 5 and the transformation process in the Faculty of Agricultural Sciences as unplanned learning experiments in the University's transition or shift toward sustainability, many lessons can be drawn, including the following.

1. **Spread the word.** It was commonly perceived among the responses of the people whom I interviewed that the vast majority of faculty members and students aren't aware that Policy No. 5 exists and most administrators haven't read it. What does it mean to be Canada's first university to implement a sustainable development policy if the campus community isn't aware it has one? In the beginning, when the policy drafting team was in the process of negotiating the terms of the Policy, raising awareness by drawing attention to the process and content of the Policy by facilitating opportunities for dialogue and debate may have solicited wider support from the university community. Reflecting back on the negotiation of Policy No. 5, John Robinson explained that the Policy “would come back to us and we would think 'oh God, this is terrible', and try and rally a little support...[b]ut there was no real central coordination of a strategy of how and in a way it might have been better if there was...[T]here just wasn’t the time or energy to do that.”

2. **Redesign reward structures.** The reality is – we're doing too much. The issue isn't that if you have an interest in pursuing new teaching methods, or introducing a sustainability component to curriculum, someone will try and stop you. In fact it's quite acceptable to try new things, but only if you continue doing what you were doing before, as is the case with single loop learning patterns. It isn't about doing things differently, changing norms; it's about doing something new in addition to meeting existing expectations (discipline-centric teaching, publishing papers, applying for grants, etc.), not changing the expectations. It is no wonder that the majority of individuals find comfort in the status quo. If paralysis is rewarded, one can only expect apathy and resistance to change. As a result, it is also not uncommon to find the same handful of people getting involved, taking risks or
doing all the work, like those who attend the “Sustainability Circles” and those in Agricultural Sciences who show up at the community meetings.

Instead of neglecting and isolating those who aren’t ready for change, Kofman and Senge (1995) emphasize the need for ongoing community building activities and active experimentation:

It is easy to waste time attempting to bring about changes with people who do not want or are not ready for such changes. Over time people who are initially confused, threatened or non-responsive to...learning often become the most enthusiastic supporters. If they are not included because they raise difficult questions or disagree with certain ideas, what starts as a learning community can degenerate into a cult. (Kofman & Senge, 1995: 39)

Existing reward structures need to change in order to encourage real creativity and for innovation and learning to emerge. Whenever change is planned, resistance is predictable. Faculty are fearful they will lose what power they have or that their resources will be reduced. Even when the status quo is painful, faculty at least know what they now have. “Mandating change, using logic to try and persuade others to accept change, or ignoring resistance actually increases opposition” (Lucas, 2000: 5).

3. “DUGMA”: Leadership and learning. It was generally agreed among respondents that both a bottom-up and top-down process is required to move effectively from policy to action, as policies alone tend to be top-down. In my interview with Kathryn Harrison, she distinguished between universities and corporations on this point:

In corporations...if there is a commitment from the top, then change can happen. And that just doesn't happen in universities. It's like moving a super-tanker. Presidents don't get to come in and actually say we're going to teach in new ways and have it happen!...Faculty members have a lot of freedom to teach what they want, to do research about what they want. Department heads don't actually get to tell us what to do.

When Moura Quayle was appointed Dean, some faculty and staff questioned the process she had initiated to involve the community in determining the direction of the Faculty. They were tired of “process” and didn’t have the time to participate and felt that Moura should make all the decisions, which is why they hired her. Sensitive to the preceding circumstances in the Faculty, understanding
that people were tired of navel-gazing and over-facilitated processes, the Dean refused to carry the fate of the Faculty on her own and compromised by setting tight deadlines when she initiated a new visioning process. If the Faculty was in fact ready for change, they would have to move quickly, all the while recognizing that the transition would be an on-going learning process. Moura ensured that there would be regular opportunities for checking in and exchanging feedback as a community, as well as one on one. The tight deadlines were there to ensure that decisions were made in a timely manner that would respect exhausted staff and faculty. Actual learning and change, of course, would extend beyond those timelines.

Professor Art Bomke noted that:

underlying all this [change] is the leadership of the Dean, because we had a curriculum committee and process that went on for about 10 years previously and nothing happened. Nothing happened because there wasn’t the drive from the top to make it happen...[W]e’ve made a tremendous amount of change with limited resources but what we’ve got has been at the insistence of the Dean – that we de-ploy and scrounge and do whatever we can to make it happen, so I think that’s a big thing. I don’t think every Dean has the vision.

According to Moura, keeping perspective was key in the transformation process, as well as the ability to connect with and serve the wider university community:

When I feel I am losing the ‘Faculty battle’, I remember that I am part of a bigger picture initiative. For me, I want the University to operate like a positive community, where the public realm – i.e. the good of the University – is at the top of everyone’s agenda. Faculties, departments and individual disciplines are not as important as the public good. Remembering this puts my Faculty successes and failures into perspective. (Quayle, 1999)

During one of my research seminars in AGSC 450, I asked the class to brainstorm: “What must we know to live responsibly and well in a finite world? What skills, abilities, values and character traits will be useful and/or necessary for the transition ahead?” One student responded “dugma,” which means to lead by example in Arabic. On every campus there are what Senge (2000) calls “community builders” or “internal networkers” who engage in collaborative or shared leadership. The Quayles and the Spiegelmans and the many others out there need to be nurtured and supported, honoured and celebrated as risk-takers and visionaries who mobilize and empower others
to pursue a common good and improve the learning conditions at the University. George
elects his students: “Don’t fit in. Find a different path because the one we’re on ain’t working.”
How do we help students build the confidence to be different in this world? Lead by example:
dynasty. Though the LFC series has managed to introduce students to the principles of sustainability
and how they relate to the vision of the Faculty, a gap may exist in facilitating opportunities for
dialogue and reflection on how these principles relate to our everyday lives. Students may have a lot
to learn from their peers, as well as teaching staff on this matter.

4. Actions speak louder than words. Though there is no formula for learning, just like there is
no formula for shifting toward sustainability, neither sustainability nor organizational learning can
be add-on, as if it were a value-added activity. Both concepts represent a set of values, which is as
unique as the individuals who make up our colleges and universities. To go beyond rhetorical shifts,
these values need to be lived and modeled by the institution in the specific context that contains it.
In the case of Policy No. 5, as soon as the negotiations began, the department where sustainability
was to be “housed” was designated to a less senior level of the university, as a specific portfolio
under the physical operations division of the University (Land and Building Services). This resulted
in the loss of the GTC program, the loss of the policy’s academic link, and the Campus
Sustainability Office’s new place in the University’s reporting structure demonstrates a lower level
of institutional commitment. The formal policy, however, covers a much larger breadth and is
intended to encompass all areas of the University, calling for change in teaching, research and
operations, calling to action all Vice Presidents. When I asked the question “What is the role of the
Sustainable Development Policy?” Alice Miro responded that the Policy may serve as an image
booster. It enhances the reputation of UBC and helps to attract new funds and new faculty given the
current interest in sustainability. Derek Masselink expressed the following viewpoint:

I just think it’s something down on a piece of paper that they can point to and say look, this
is what we’ve done...[T]he university has been very good actually at providing words...that
underline their commitment to sustainability but they haven’t been very good at practicing it. And I think as a university we need to practice what we preach...I think there’s a recognition in the student body that talk is cheap and if you’re not practicing it then it’s not very meaningful.

As one group of students in the LFC video advised, “If you’re going to talk the talk, you have to walk the walk.” It is evident that student watchdogs have emerged from participating in the LFC series – students who are able to question the institution’s espoused theory and its theory in use and distinguish between lip-service and real action. It is a healthy sign when students are inspired to keep the institution on track. In my interview with Brian Holl, he shared that in the case of the Faculty of Agricultural Sciences:

I think there’s been more discussion and more interchange on curriculum issues and on what our students need and how we can deliver it effectively in the last few years than in all the previous time that I’ve been here. It’s an enormously positive thing. I think it’s a positive thing for students. Students are usually pretty good at picking up these kinds of things from faculty.

6. Shared dialogue, shared vision. During my interview with the Director of Campus and Community Planning, Fred Pritchard, he suggested that:

[although the words may imply a broader focus, [Policy No. 5] has been quite limited and I think we need to become more open to understanding that no one person, no one faculty, no one group owns sustainability. It is much broader than that. I’m sensing that there is territoriality associated with sustainability and I think that is as much an impediment as it is helping to assist.

Though it’s a positive start, designating a policy and an office with a staff of four to sustainability may not be the best reflection of the institution’s commitment to building a sustainable future. The University’s transition to sustainability needs to be a shared endeavour. The concept of sustainability, however, is not discussed in university documents such as the Academic Plan, or the University’s Trek 2000 Vision Document. As Kathryn Harrison explained in her interview, in order to be effective, a policy should express what’s already a shared commitment as well as lead us in a certain direction, because a policy can only do so much unless people are actually committed to it. A
significant part of the problem, however, is a lack of agreement on what we are talking about, which inevitably leads to lack of action.

The challenge is, as Senge suggests, going beyond writing vision statements and building shared vision through dialogue. The purpose of dialogue is to honour the development of individuals, ideas and organizations at a very deep level. It opens paths to change and clears space for organizational transformation by changing the inner landscape (Brown, 1995). Different from conversation or debate, dialogue is a planned, non-adversarial, facilitated process that helps participants develop a shared understanding of an issue and its potential solutions. Engaging in meaningful dialogue is an essential capacity for learning, generating trust and commitment and encouraging diverse points of view. Creating opportunities for meaningful dialogue during regular community meetings attended by the Dean has been a key component in the Faculty of Agricultural Sciences’ transition process.

In a group interview with the LFC teaching team, Professor Brent Skura shared his experience in the process. “I think in the time I’ve been at the University, the last four years, I guess, since I’ve been involved in this is when I’ve had a chance to talk to more faculty members than I did in the previous 20 years.” Another demonstration of the Faculty’s learning capacities is linking its vision to its core curriculum. Principles of sustainability were central to the Faculty’s Land, Food and Community series:

What we did consciously think about was that sustainability was the underlying principle behind what we were doing...it was really a common thread that ran through the series. How effectively it did I think is another issue...but I think our students are much more aware of [sustainability] than the average student on campus. (Brian Holl)

6. Real world learning. Co-op terms and industry placements are marketed to students as opportunities to gain real world experience. But why must students always leave the campus to gain “real world” experience? Why not make the campus the real world and facilitate opportunities to study the campus? In AGSC 450, students studied the UBC food system as their final assignment.
Working in teams, they were asked to provide an analysis of one aspect of the UBC food system and make recommendations. Their reports have been published on the Faculty's web-site and submitted to the Campus Sustainability Office for review. The project also contributes to the collective memory of the course through intergenerational collaboration. This year's accomplishments provide the foundation for future generations of students who will build upon the first class' initial findings as an on-going assignment in the LFC course and service to the University community. In the LFC video, one group of students suggested that the hypothetical cases they studied in PBL courses should also be designed based on real life issues and needs in the community. Connecting to the wider community and facilitating opportunities for mutual exchange are critical components of an educational model based on principles of sustainability and citizenship.

5.2 Toward a Theory of Action - Sustainable Citizenship Education through Learning Communities

"Since the beginnings of the current higher education reform movement in the mid-1980's, change has been promoted under the banners of assessment, continuous quality improvement, active learning, strategic planning, distance education, and other related movements" (Angelo, 2000: 75). An alternative vision of change has been unraveling throughout this thesis based on a transformation of academic departments into living learning communities. How will a commitment to sustainable citizenship education manifest itself in the daily life, structure and decisions that we make on our campus? What does it mean in practice to design learning communities within the university? They already exist at UBC in the form of the four Innovative Learning Programs: Arts One, Science One, Foundations and Coordinated Science, as well as the First Nations House of Learning, Green College and informal environments such as campus clubs and organizations. The subject of the sub-case study in this thesis, the Land, Food and Community series, has also been
described by members of the FAS as a “community of learners”. Though there exist a variety of
definitions and manifestations, learning communities in this thesis represent the principles and
capacities of learning organizations, citizenship and sustainability as discussed in previous chapters.

“Learning communities are places where an invisible fabric exists of relationships that are tended to
and cared for; vulnerability and diversity are welcome; curiosity reigns; experimentation is the
norm; inquiry is practiced with compassion; questions can go unresolved” (Ryan, 1995: 290).

Building on Ryan’s definition and incorporating the implications discussed earlier for organizational
learning at UBC, the following design insights form the basis of a theory of action toward
sustainable citizenship education.

5.21 Design Insights

1. Context is Everything – Notions of “sense of place” and “rootedness” in landscape (intellectual,
organizational, built and natural) provide the foundation and context for effective learning
communities. Part of the sense of place experienced by many participants at Schumacher College,
for example, comes from the ancient wisdom echoed in the walls of the 16th century college
building. A sense of place is further fostered through story and ritual. Director, Anne Phillips
begins every course by telling the story of Schumacher College and how it was created. What are
UBC’s stories? Do students outside First Nations Studies programs learn about the Musqueam
(Coast Salish) people, on whose ancestral territory UBC is situated? The development of UBC’s
Point Grey Campus was the outcome of the Great Trek in 1922 – a student-led pilgrimage to lobby
the provincial government for a new campus. How is the Great Trek reflected in the institutional
memory at UBC? Does it find a place in curriculum? Every UBC student should know the story!
An invitation to connection and learning, stories provide context. “However a story is told, it
carries more than facts; it conveys what is around the events and the people – what informs them,
inspires them, moves them, explains them" (LeBaron, 2002: 229). Tools in the transition to sustainability, stories connect us to past and future generations. “In stories we find places of relatedness and feel stimulated to act” (Ibid.: 224).

2. **Pause/Reflection** – Based on the point of view that education is the tool students use to develop their own definitions about their roles in life, learning communities ensure regular opportunities to pause and reflect on those definitions and roles. Possible questions for students to reflect upon before they graduate and leave the campus could include: What was most meaningful about my experience at UBC? What did I come here to do and what do I want to do now as I leave the University? How, if at all, have my intentions changed? The questionnaires that students were asked to complete in the sub-case study were designed with this goal in mind. If implemented, the Sustainability Pledge would offer students the opportunity to discuss and reflect on these types of questions before graduation.

Furthermore, the development of self-reflection in teaching brings into question the faculty’s relationship to what is learned and who is taught (Tierney, 1994). Tierney (1994) suggests that departments might develop co-teaching assignments among faculty, who could exchange feedback on their teaching practices based on questions such as those proposed by John Smyth (1992: 299):

- What do my practices say about my assumptions, values and beliefs about teaching?
- Where did these ideas come from?
- What causes me to maintain my theories?
- Whose interests seem to be served by my practices?
- What constrains my view of what is possible in teaching? (157)

3. **Shared Vision as Core** – In the case of the FAS, the Faculty’s shared vision: Land, Food and Community is the focus of its core curriculum. As a result, every student in the Faculty has a part in
the vision. Engaging students in the department’s shared vision is critical to designing learning communities as it fosters connection between purpose and learning.

4. On-going Feedback – Principles of feedback and dialogue are characteristic of learning communities such that when an opportunity for dialogue and feedback is initiated, the process doesn’t end once the session or meeting is over. In learning communities, feedback and dialogue are on-going processes in which participants follow up on previous contexts and outcomes in order to avoid repeating the same mistakes and understand the organization’s learning patterns.

5. Keystone Figures – In ecological terms, keystone species help to support the entire community of life of which they are a part. In principle, keystone species prove the interconnectedness of the living world. A “keystone” is the uppermost and last stone placed in an arch. It locks all the other stones in place making the structure stable and strong. Who within the university or department fill keystone roles? Keystone figures are, in Senge’s terms, the internal networkers and community builders. Keystone figures are nurtured and celebrated in learning communities as risk-takers and innovators, who need not necessarily hold positions of administrative leadership within their departments or on campus. In learning communities, faculty roles shift from delivering content, truths and facts, to designing learning environments and experiences, where they serve as keystone figures such as coach, mentor, and role model for learners. In a service learning situation, professors become coaches, often facilitating students’ adjustment to a different culture.

6. Leakiness Between Systems – As a general ecological rule, without exchange among systems, there is less stability within systems. Systems exist in relation to one another. In other words, a

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24 In an ecosystem, each species connects to and depends on other species. While each species contributes to the overall integrity of the ecosystem, some species do more than others in the overall scheme of things. Some species provide essential services, and without the unique work of these key species, the ecosystem changes significantly. Scientists call these pivotal players "keystone species." When a keystone species disappears from
robust system, or learning community, has connections to the outside world - a wide surface area with many sensory mechanisms. In the academy, these connections can be described as community-university collaborations - working with partners in the community as other than subjects or audiences. Some examples at UBC include the Learning Exchange and Humanities 101 programs (See Appendix IV). Studying people or communicating to them is very different from actually involving them in the work or research in a substantive kind of way, especially in a project's problem definition and research design stages. As John Robinson discussed earlier, community-university collaborations can be difficult for the University to deal with because the criteria aren't there, nor the systems in place to figure out how it works well and how it doesn't work well. In the university publication, *Challenge and Promise*, Margo Fryer and Brian Lee (1999) begin to develop a set of criteria for community-university collaboration based on their experiences working with UBC's Downtown Eastside Initiative (now "The Learning Exchange"). The initiative is based on the premise that universities have a responsibility to reach out to the larger community and play a role in supporting social change.

The dichotomy between outside and inside, between self and other, disappears in learning communities. As Margo Fryer expressed in her interview, this needs to happen before the transition to sustainability can be furthered in the deep way that UBC President, Martha Piper may be referring to; the realization that I cannot hurt you or the environment without hurting myself.

7. *The Whole is Embodied in the Small* – Leakiness between systems also refers to exchange among other learning communities within the larger system, i.e. departments within the University. Learning communities embody the concept of the University as a microcosm of the real world. Real world problems cannot be solved by one discipline alone. Real world solutions require interdisciplinary collaboration. Though it would require significant administrative coordination,
this could take the form of a mandatory for-credit project designed to facilitate inter- and intra-faculty collaboration among all fourth year undergraduate students before they graduate. The project could be the keystone course, the final, interlocking piece of a series of interdisciplinary experiences that have prepared students for their keystone project. Such experiences could draw upon existing programs such as SEEDS and the LFC Innovation Fund in the FAS that rewards students' proposals to study the institution and fosters intra-faculty collaboration. During my interview with Brian Holl, he made the point that traditionally, we are taught by specialists, and for most of their undergraduate careers, students are blocked off from one another according to their specializations:

And then once in a while in the fourth year, we'll have a capstone course and we'll be really amazed when we get our undergraduate students together and they can't figure out how to put all this stuff together. And for the previous four years, we've done nothing but keep them separate and we block people off in terms of their specialties.

8. A Diverse Cast - A wide range of actors perform in the education production. The notion that education is all around us is at the heart of sustainable, holistic learning communities. Who are the actors in the learning experience? The University's built environment, policies and institutional partnerships are all actors, and most notably at UBC - an institution located in one of the world's richest ecosystems: the Pacific Northwest Rainforest - the natural landscape is an actor.

No two learning communities are the same. They are as unique as the individual students and staff who participate in them. Colleges and universities experience a high turnover rate of students, which also contributes to the dynamic, diverse character of learning communities, though this is not necessarily the case with staff and faculty, particularly tenured faculty.

9. Ways of Knowing - Knowing lies not so much in the mind of individual actors, but arises in relationship and through participation (Goodwin & Reason, 1999). Based on this reasoning of the nature of knowing, assessment takes on a different meaning in learning communities. In their species, and the intricate connections among the remaining residents begin to unravel.
article, “Toward a Science of Qualities,” Goodwin and Reason draw upon Park’s (1999) three forms of knowledge: representational, relational and reflective. Representational knowledge develops through the identification of relationships between discreet variables. Relational knowledge is the foundation of community life. Its development fosters community ties as well as helps to create other forms of knowledge. “Connected ways of knowing are evoked in relationship, whether within ourselves or with others” (LeBaron, 2002: 141), or to a particular place and time. They arise from acknowledging the relational systems that link us to the expansive, bigger picture (Ibid.). “Because we feel linked to a bigger picture, we move out of narrow ways of perceiving into the realm of possibilities” (Ibid.: 156). Through the development of relational knowledge, we come to understand that our actions might have an impact on someone miles away, at a later time, or on our natural ecosystems. Reflective knowledge involves normative states in social, economic and political realms. It concerns a vision of what ought to be, what is right and what is wrong. It often involves a transformative influence and arises through the process of consciousness raising, or “conscientization”. Not only do service learning courses provide a valuable service to the community, but they can provide students with opportunities to transform in very powerful ways:

For many students, involvement on the front line at a formative time in their lives can be a transformative experience, forcing them to confront their own values and the utility of their coursework. Forming the kinds of values and understandings that direct community service provides can reshape future professionals – lawyers, architects, social workers, planners – so that they approach their profession in ways that will benefit their local community over their entire professional lives. Similarly, the sometimes painful intersection between traditional research and community needs often produces a profound change in researchers who must directly confront the utility of their work. (LeGates & Robinson, 1998: 314).

According to Park, reflective knowledge instills conviction and courage in the knower, and commits him or her to action (Goodwin & Reason, 1999).

Assessment processes in learning communities take into account all three forms of knowledge, bidding farewell to quantitative measures alone. This presents a challenge for institutions operating
in an educational system that relies primarily on quantitative evaluation methods to determine a student's success. Educational models that focus on experiential, community-based learning force us to explore alternative assessment methods. The development of relational and reflective knowledge, for example, is at the heart of effective service learning programs. How do you grade students in a service learning course? How do you evaluate the development of relational and reflective knowledge since there are no right answers?

To start, when we talk about evaluation and assessment of students, we cannot exclude students in the discussion (Tierney, 1993). In learning communities, students learn methods of self-evaluation and self-inquiry, such as keeping a course journal to record their reflections on their learning experience. As discussed in Chapter 3, assessment is not just about measurement tools and analytical techniques; it is first and foremost about asking the right questions.

The underlying tenet of learning communities and sustainable citizenship education is the recognition that all life is interrelated; the whole is truly greater than the sum of its parts. Just as Schumacher College was created with the philosophy that "education is life, not just a preparation for life," (Bakshi, 2001) sustainable learning communities are symbols of this educational ideal. In practice, learning communities are a response to the educational deficiencies of large institutions identified by Sale in terms of a lack of community, overspecialization, bureaucracy, alienation and "growthmania". The concept of learning communities requires the university to explore alternative pedagogies. Dewar & Isaac (1998) suggest that "teaching to transgress" (hooks, 1994) – to cross the boundaries of inquiry usually imposed by the authority of the professor and to challenge the emphasis on synthesizing what other people think – implies a collaborative, case-based, experiential approach that is very different from the usual ways of teaching and learning in the university. Such a pedagogy is consistent with learning communities as it reinforces processes where students, faculty
and community people learn together. It moves beyond “hierarchies reinforced by the university toward a practice that sees members of the community as experts and as partners,” (Dewar & Isaac, 1998: 346) creating tensions that have the potential to transform parts of the university.

5.3 Promising Initiatives and the Way Forward

Many promising initiatives were highlighted during the interviews, which provide a good starting point for discussing UBC’s potential for becoming a learning organization. It is important to begin by recognizing the internal assets within the University, to be inspired by the good things going on, and share some of UBC’s success stories instead of starting with what is missing, problematic or needed. We need to celebrate successful change, as well as the efforts of committed staff, faculty and students. If we recognize and nurture this energy and these strengths, a path toward sustainable citizenship education is surely not far from reach. It is exciting to learn that interdisciplinary programs and engaged learning methodologies such as service learning and problem-based learning are currently being explored and practiced on a small scale at UBC. The potential for implementing a sustainability pledge at graduation and George Spiegelman’s labour of love, the Interfaculty Program on Sustainability Studies, are also signs of great promise. Please see Appendix IV for an elaboration of some of the examples discussed during the interviews, which is by no means an exhaustive piece as there are certainly many promising initiatives underway. Many of the initiatives featured here, however, are still in their early stages of development and lack any formal evaluation, though this might only be a matter of time.

Efforts to extend the University’s community outreach and promote opportunities for dialogue are demonstrated through recent events like the Global Citizenship conference in September 2002 to discuss the role of higher education post the tragedies of September 11, 2001. In addition, sustainability is the theme of this year’s second annual Research Awareness Week. Planning the
University Town as outlined in the UBC’s Official Community Plan also presents a critical opportunity to revisit the institution’s commitment to sustainability and its relationship to the local community. The overall challenge is to move beyond isolated experiments and facilitate the beginnings of larger change. University documents such as the Academic Plan, Trek 2000 and Policy No. 5 are major steps forward in thinking as an institution about the best ways to serve the society that supports the University. The following suggests a process for taking action.

Martha Piper’s reappointment as President may be the catalyst such a process requires. Her promise to review Trek 2000 presents an opportunity to revisit Policy No. 5, explore next steps and act on the institution’s commitment to sustainability education. In her interview, Kathryn Harrison noted that the institution’s inability to act sustainably is due to a lack of understanding of what we mean by sustainability. There is an opportunity here to demonstrate institutional leadership, engage in dialogue and facilitate a series of citizens’ forums on the role(s) of the university and what it means to be Canada’s leader in campus sustainability.

There are excellent models of citizens’ forums in the public policy arena to help guide the creation of a participatory, inclusive and mindful public involvement process. The university could host a series of informed community deliberations and invite representatives of community groups, faculty, staff and students to spend time deliberating the practice of sustainability education at UBC. Deliberative materials would be sent to participants prior to the forum in preparation for discussions in small groups, with a facilitator, around specific questions such as those used in the case study interviews. How is UBC a model of sustainability and what can it do to demonstrate to our communities the way to a sustainable future? What can the public expect from UBC graduates? Identifying a skilled cadre of individuals on campus to serve as facilitators and forum coordinators is key. At the end of each discussion session, groups could formulate questions to raise at a plenary session with a community panel. Panelists might include university administrators, faculty, students,
government officials, and community experts on citizenship and sustainability education. During each discussion session, as well as the plenary, note-takers would document everyone’s comments. All of the documented information would be compiled into a report that reflects the views of participants as part of the Trek 2000 review. The report, as well as an outline of the citizens’ forum process, could be accessed on the University’s web-site in order for participants to easily refer to the document and see how their ideas were taken into consideration.

One-time events work well as generators of new ideas but these should be complemented by an ongoing cycle of dialogue, feedback and reflection. Building on institutional innovations like the “Sustainability Circles”, community gatherings of students, faculty and administrators from every campus department could be facilitated to talk about the Policy’s next steps and its relation to UBC’s Trek 2000 vision. Specifically, such community gatherings could focus on:

• **The nature of a sustainability requirement** – Though a mandatory course may not be the way to go, careful consideration should be given to the LFC model in which sustainability is incorporated into the Faculty’s required core curriculum. If other faculties are interested in pursuing a similar approach, where can they go for support? A menu of options for completing a sustainability requirement in an undergraduate program would also be made available to students, including coursework as well as experiential/practical activities. Options may draw upon existing initiatives such as the Inter-Faculty Program on Sustainability Studies’ pilot courses, SEEDS and The Learning Exchange.

• **Strengthening internal collaboration** – As suggested in the report “Rethinking Environmental Education at UBC”, the web-sites of most of UBC’s environmental programs had more links to off-campus resources and organizations than to on-campus ones. Fostering strong internal networks across academic disciplines to build capacity, share resources and complement one another’s programs is critical to effective action.
• **Co-teaching/team teaching opportunities** – Encouraging interdisciplinary studies among students is nothing new, but we shouldn’t leave out faculty. Opportunities to co-teach or team-teach interdisciplinary courses can serve as valuable learning opportunities for faculty, with the right resources, workshops and support available.

• **Sustainability report cards** – Following Erfan Kazemi’s suggestion, report cards such as the ones that department heads and vice presidents are mandated to provide based on how well their portfolios match criteria outlined in university policies (e.g. tuition) and Trek 2000 can be developed for Policy No.5. The first step is to develop criteria, which would emerge from participatory processes such as the citizens’ forums and community gatherings discussed here.

• **Faculty and staff development workshops** – Next steps in implementing Policy No. 5 would include a series on ongoing professional and academic development workshops on topics such as: “the reflective practitioner”, “team teaching”, “systems thinking”, “interdisciplinary collaboration” and “theory and practice of service learning”.

• **Network of centres for community collaboration** – In order to link curriculum with real needs, issues and accomplishments in our communities, a coordinated, long term, intentional effort to support community-university collaborations is manifest by a network of centres in every faculty. (The network could also extend to other post-secondary institutions!) Centres would serve as a clearinghouse for community-based research opportunities for class projects or theses brought forward by members of the campus, local, and global communities, and headquarters for symposia and workshops on issues related to community-university collaboration. This suggestion builds on the community-university liaison office already proposed in the Academic Plan.
An important step forward is identifying and engaging key individuals and groups already committed to the concept of sustainable citizenship education. In addition, concrete financial resources must be invested to create the infrastructures capable of supporting and assessing a range of sustainable citizenship education activities in the long term. The ideas proposed here are only the beginnings of a larger, ongoing conversation. Becoming a learning institution is a continual process of change and reflection leading to deeper shifts where the point is to demonstrate to our communities the hope for a sustainable future.
6) CONCLUSION

And when you get the choice to sit it out or dance,
I hope you dance. (Leanne Womack)

What does it mean to be Canada’s leader in campus sustainability? Some might argue that having a sustainable development policy and a campus sustainability office is a sufficient demonstration of leadership and far exceeds the efforts of most universities. But if sustainability implies a new educational orientation, not to be added-on to fit pre-existing norms, a fundamental shift is required. John Robinson concluded that: “There’s a rhetorical shift that has been profound and there have been policies developed that have been quite important, but the internal structural dynamics of the system haven’t changed to reflect that shift.”

The principal question explored in the case study is, how, and how well, is UBC’s Sustainable Development Policy, being put into practice? How well does UBC’s theory in use match the espoused theory expressed in Policy No. 5? The statements called for in the Policy require double-loop learning or generative learning, but according to the outcomes of the interviews, the institution’s experience is better qualified by single loop learning or adaptive learning processes. There are clearly some important initiatives brewing on the periphery; however, the University still has a long way to go to reduce the disconnect. The transformation of the FAS offers some insight into the practice of generative, double loop learning, based on a fundamental re-evaluation of its mission, operations and curricula. At the very least, UBC has drawn some attention to the responsibility of institutions of higher education to demonstrate the way to a sustainable future.

Ideally...no institutions in modern society are better situated and none more obliged to facilitate the transition to a sustainable future than colleges and universities. If the public dialogue about sustainability gets beyond symbolism and down to hard realities, it will be because a much more fully educated and morally energized citizenry demanded it. What would it mean for educational institutions to meet this challenge? (Orr, 2002: 96)
This thesis is not intended to provide a blueprint for meeting this challenge, nor is it a formal evaluation of the Sustainable Development Policy or the LFC series' ability to help meet this challenge. It is a conversation about the purpose of education and the relevant models and processes that can best serve the needs of the 21st century. It explores what it means to move from policy to practice - what it means for an institution to live its values and become a learning organization - and what the practice of designing learning communities might look like. "Academic policy includes the course followed by the institution, the tasks that specifically must be performed in research, in teaching, in the spreading of culture, and in university extension" (Escobar, Fernandez & Guevara-Niebla, 1994: 135). This thesis takes as its starting point two of UBC's first steps in the transition to sustainability (Policy No. 5 and the LFC series), draws inspiration from the Schumacher College experiment and imagines how the rest of the transition might unfold.

Based on the argument that sustainability, citizenship and organizational learning are closely linked, a vision of sustainable citizenship education guides us through the thesis. But, the point, of course, is not to develop yet another abstraction to add to the list (experiential education, citizenship education, sustainability education, community-based education, etc.). The point, rather, is to encourage and engage in discussions about institutional meanings (service, community, sustainability) and develop a shared language that helps us to describe this work. Without a language, without some agreement on what we are talking about, we cannot begin to develop tools, plans and strategies for assessing the quality of this work, its impact on campus and community capacity, and for improving effectiveness (Holland, 2001). As members of the institution struggle with the form and meaning of sustainable citizenship education, they might invent their own language as a result of the creative tensions that arise in meaningful dialogue.

On a departmental scale, we see demonstrations of meaningful dialogue and shared vision in the Land, Food, and Community series in the FAS, where the core values of the Faculty are also the
core curriculum. Students' reflections on their understanding of sustainability and the role of LFC in developing that understanding reinforce that the department's espoused theory links closely with its theory in use. Further generative learning is required, however, in order to better integrate the LFC series with other parts of the Faculty. On-going and ever evolving, organizational learning is not an end but a means to effective action.

In this final chapter, I revisit the research methodology and discuss some of the challenges and limitations I experienced. The chapter also includes a section on my personal reflections on the research process and further reflections on institutional change.

6.1 Design Challenges and Limitations

If I were to do the research over, there are some things that I would change based on the problems and limitations I faced with the current study. Though it wasn't intentional, I didn't involve members from the off-campus community in the research. It would be valuable to build on the research in the future and engage members of the local community in a forum concerning the role of UBC in building a sustainable future in the context of community-university partnerships. I set fairly tight participation parameters in my thesis, given time constraints and a lack of funding. Every interview (interviews ranged from one to two hours) was audio-taped and transcribed word for word, which would require up to eight hours per interview. Participation was always optional and in some instances I ran out of time with participants during the interviews. With more time, I would have engaged in more consistent follow up with participants. During the interviews, some participants would stray from the questions, and since I was interested in the thoughts the questions would stir among interviewees, I wasn't strict about returning to the original set of questions. I also hoped that the interviews would serve as opportunities for self-reflection and avoided interfering with the interviewees' responses unless they were completely off topic. Though most participants
were selected using snowballing techniques, referrals came from individuals who I had hand-picked based on their direct involvement with sustainability issues on campus. I was also interested in capturing the thoughts of individuals who hold decision-making roles on campus given that the theoretical framework for the thesis is based on organizational learning. All of the case studies on organizational learning that I had previously read about focused on individuals in top-level management and decision-making positions. As a result, the sample of participants isn’t very representative of the university community. Whereas students consist of approximately 80% of the university population in the institutional core, only 3 out the 13 (23%) individuals interviewed about Policy No. 5 were students. In the sub-case study on the Faculty of Agricultural Sciences, however, students far exceeded the number of staff and faculty participants. Though there is a strong gender balance overall among participants, the university’s ethnic diversity isn’t necessarily reflected in the study samples, nor is the diversity of academic and operational units.

Terminology issues surfaced during the interviews, as some participants struggled with the last question on business and the University, and wanted to know what I meant by the word “business.” As a result, participants answered in a variety ways according to how they interpreted business, i.e. business-like behaviour, the university as a private enterprise, partnerships with business. Providing a definition in the question may have been helpful, but I was also interested in hearing how participants would personally define business and its relation to the University as an organization. Other participants struggled with the first question that referred to Dr. Piper’s speech and her definition of sustainability as “a deep-seated internal shift in perspective.” Participants were asked to reflect on what the President meant by that definition. Whereas some of the interviewees had attended the event when the speech was delivered, some of those who weren’t in attendance were concerned that they couldn’t properly answer without understanding the context of the rest of her speech.
Another concern I had was with my role as Teaching Assistant in AGSC 450, given that my study sample consisted of students who I supported, guided and evaluated. That said, I only had 13 students in my tutorials out of a total of 115 students. As a member of the LFC teaching team, I gained further insights into the Faculty, more than I could have otherwise. Having an entire semester to get to know the students, and for them to get to know me, they had a better understanding of my research, there was plenty of opportunity to raise any questions or concerns, and there was time to build a level of trust. In addition, the video activity was designed not only as a component of my research methodology, but as a formal part of the course. Without the questionnaires and the video, students would not have had the structured time to reflect on what they had learned in LFC and the effects of LFC on their roles as citizens beyond UBC. It should also be noted that I collaborated on an on-going basis with both course instructors, who contributed significantly to the research design. In addition, I did not initiate the sub-case study research. Dean Moura Quayle first proposed the idea to study the LFC series.

The timing of the video activity posed some limitations as well, restricting opportunities for meaningful follow-up. It was generally felt among members of the teaching team that students would have more meaningful reflections to share at the end of the course, rather than part way. Therefore, it would make sense to facilitate the video during the last class. Most of the participants, however, left the campus shortly after the end of the course and have now graduated from UBC without having the opportunity to view the video and give feedback.

During my research, I faced the question, is it "proper research" to examine your own institution? I reflected on the implications for my thesis given that I was examining an institution where I was both a student and a member of staff, not to mention an active member of the community, serving on a wide range of campus committees, including the Student Union. I disagreed with the traditional emphasis on objectivity in research and the value of context-
independent knowledge, as subjectivity is unavoidable as thinking and feeling human beings. "The most advanced form of understanding is achieved when researchers place themselves within the context being studied" (Flyvbjerg, 2001: 83). Some of the most revelatory research can emerge from self-inquiry, an approach, I feel, more institutions should consider undertaking, perhaps as a complement to more objective approaches.

6.2 Personal Reflections – The Medium is the Message

Reflection is a common thread that weaves together the various parts of this thesis. From the student questionnaires and the video exercise, to the implications for organizational learning and designing learning communities, to the interviews featured in the vignettes, the message to be retained and practiced is "reflection is learning". Readers are also encouraged to reflect on the research content and develop their own answers to the questions raised in the thesis. Asking colleagues to interview me was a way to gather further insights into my role as the researcher, understand the context in which the research is rooted and reflect on what I have learned and how I have been affected by the research (See Vignette 4). It was a way for me to “practice what I preach” and embody the principles of reflection advocated for in the thesis.

Vignette 4: My Learning

Interview by David Wolfenstein25, Schumacher College, July 2002

DW: If there was one thing that you would recognize as a sign that universities were becoming learning organizations what would it be?

NG: We wouldn’t have a sustainability office staffed by 5 or 7 people working on the issues. It would be more integrated into everything that the university does, in every department, faculty, school, office, that it wouldn’t be left to a handful of people on the periphery to deal with. It wouldn’t be a matter of just working on quantifiable measures around things like recycling, waste reduction, energy efficiency, though these are extremely important initiatives and activities. I think

25 David Wolfenstein was a course participant at Schumacher College.
a truly sustainable university would be thinking about what sustainability means in terms of curriculum and how this concept is informing the citizenship that we are building in our graduates, and how sustainability fills a role in the partnerships and relationships that we create and build and nurture with community.

DW: How have you been affected by the research?

NG: I've been really pleasantly surprised by how much I've truly enjoyed carrying out these interviews with people on campus, hearing these stories. Spending time in conversation, and just learning so much through the whole process. I feel like I've been able to connect with very different perspectives on this whole question. The interviews were grounding.

DW: What have you learned?

NG: What I'm talking about I think will be seen as a big challenge. What I've learned a lot about I guess is the practical side – the questions around how do we really put this into practice? What do we really mean by this? And these are the current realities we're facing like huge government cutbacks, and where does this fit in, in a way that's not add-on or value-added, that it's truly a part of how the institution lives. So I think being exposed to debate has been really healthy for me, being challenged has been rough but I think I've learned a great deal from that as well. Hearing from other people who are saying 'well, we're doing this already' and this resistance to change.

6. 3 Further Reflections on Organizational Learning

Colleges and universities educate a large proportion of the voting citizenry, not to mention most of the politicians, journalists, reporters and news commentators. We also educate all of the school administrators and teachers who, in turn, educate the entire citizenry at the primary and secondary education level. In short, we in the higher education community not only have helped to create the problems that plague our society, but are also in a position to do something about them (Astin, 1999). “Whether we like it or not colleges and universities place themselves in a position of leadership in society because they presume to provide an intellectual framework and moral foundation that will be valid into the future” (Senge, 2000: 275). Ironically, however, universities exhibit few of the characteristics of learning organizations in the language of Schon, Argyris, Senge and Kofman and others.
Kofman and Senge (1995) identify three main dysfunctions in our institutions: fragmentation, competition and reactiveness. The discipline-centred design of most colleges and universities perpetuates fragmentation, and an overemphasis on competition reinforces our fixation on short term measurable results. Learning, rather, often requires altering the flow of time – slowing down the action to enable reflection on tacit assumptions and counterproductive ways of interacting. Reactiveness, however, has gradually become a way of life. We have grown accustomed to changing only in reaction to outside forces, yet the wellspring of real learning is aspiration, imagination, and experimentation (Ibid.).

Senge's basic meaning of a learning organization is an organization that is continually expanding its capacity to create its future (1990). UBC, however, is also committed to creating the future citizens of the world or global citizens. Therefore, not only is learning a matter of expanding the institution's capacity to create its future, but the future of our communities is also at stake. Can universities serve as agents of positive change? Some scholars feel that is too late and argue that the university has lost its meaning-producing role in society to the hands of corporate culture. This thesis acknowledges this concern and examines the potential for UBC to become a learning organization in order to reflect on its meaning-producing role and demonstrate on a day to day basis its commitment to sustainability.

Can the University design itself for the twenty-first century and learn to recalibrate its mission, operations and curricula with global sustainability in mind? Where will we turn in the search for alternative models of the educational enterprise? To speak of education at Schumacher College is to speak of living in community. The College brings into sharp focus what is meant by the purpose of education. What might we learn from such a small, unique institution? It provides a portrait for how change can occur and allows for self-reflection about our own campus efforts that are aimed at educational innovation.
“Everything we do has to respond to sustainability principles,” expressed Moura Quayle. She emphasized that the University's role in facilitating a shift toward sustainability is to increase dialogue. “It is to ensure that there is a dialogue about what sustainability means to us and that there's a thread of that dialogue that occurs in whatever we do.” The transition would also require rethinking the standards for academic success to encourage engagement with real and sometimes messy public problems. “It would change the standards against which we evaluate institutions of higher education to include real ecological impacts on the world and perhaps those of our graduates” (Orr, 2002: 81).

The honest, humble and purposeful “I don’t know” grounds Kofman and Senge’s vision of learning organizations. As society’s ultimate “knowing” organizations, not knowing may be difficult for universities. In the University’s transition to sustainability, shifting from a knowing organization to a learning organization is to reduce the disconnect between the institution’s espoused theory and its theory-in-use. Can the University follow in the light of the Faculty of Agricultural Sciences and develop communities of learners where “we are continuously learning from our students, our external communities, and each other in order to stay relevant?” (Faculty of Agricultural Sciences, 1997) In my interview with Brian Holl, he responded, “I think the University is getting there. I think the concern I have about the Sustainability Office is that it’s a front... ‘Yeah, we’re doing stuff. See, we have an Office’. But I think the progress is certainly noticeable in the past year.”

As do all social institutions, colleges and universities exist as systems within larger global political systems and are affected by external forces of change. But, as David Orr points out, our post-secondary institutions are also unique in many ways:

[M]ore than any other institution in modern society, colleges and universities continue to have a moral stake in the health, beauty, and integrity of the world our students will inherit. We have an obligation to provide our students with tangible models that calibrate our values and capabilities - models they can see, touch and experience. (2002: 133)
Though there is no prescription for learning, organizations can develop capacities for learning like the ones discussed in this thesis. As the writer, I hope that readers will not only reflect on the ideas presented, but will also create and explore their own ideas about learning capacities and the University's transition to sustainability. The learning organization I envision is an institution committed to the real work of building a sustainable and decent human future, capable of serving by example – a true learning community.
BIBLIOGRAPHY


Quayle, Moura. 1999. Making Change Under Pressure: Transforming the UBC Faculty of Agricultural Sciences. (Personal reflections paper)


APPENDIX I: Implementing Policy No. 5 – An Unplanned Learning Experiment

List of Participants:
- Derek Masselink, UBC Farm Manager, Graduate Student, Faculty of Agricultural Sciences
- Alice Miro, Undergraduate Student (Environmental Science), Student Environment Centre Volunteer
- John Robinson, Former Director, SDRI, Professor, Geography
- Erfan Kazemi, Undergraduate Student (Math), Board of Governors
- Fred Pritchard, Director, Campus and Community Planning
- Sid Katz, Executive Director, Community Affairs
- Tony Dorsey, Director, School of Community and Regional Planning
- Moura Quayle, Dean, Faculty of Agricultural Sciences
- Martha Piper, UBC President
- Freda Pagani, Director, Campus Sustainability Office
- George Spiegelman, Professor, Microbiology, Chair, Environmental Science
- Margo Fryer, Director, The Learning Exchange
- Kathryn Harrison, Professor, Political Science, Former Chair, Environmental Studies

Interview Questions:

1. UBC President, Dr. Piper has described sustainability as a ‘deep-seated internal shift in perspective’ (Sustainability Circle, September 25, 2001, Sage Bistro). What do you think she means by a ‘deep-seated internal shift’? What is the University’s role, if any, in facilitating this shift? (i.e. what kind of institutional shift is required in order to help facilitate an individual shift?)

   - It is now expected that UBC students will graduate having completed an ‘international requirement’, or with some degree of exposure to an international perspective. Should there be a sustainability requirement?

   - What would be the evidence that students are graduating as ‘sustainability leaders’?

   - How might we assess how well the sustainability agenda is put into practice at UBC, particularly in the areas of curriculum and community engagement?

2. What is your personal understanding of sustainability? How do you view your role in moving the sustainability agenda forward at the University? What do you feel is the role of UBC’s Sustainable Development policy?

   - Based on your work at UBC as well as with other organizations, do you have a general theory of institutional change? How might it relate to the implementation of a sustainability agenda at UBC?

3. In what sense, if any, is the University a business? Are there any areas of the University where following a business approach is credible? If so, do you see potential or unavoidable conflicts with the sustainability agenda?
Some of the contemporary literature on the role of higher education critiques the University and indicates that an increasing corporate presence on Canadian campuses, particularly in research, threatens the University's cultural function. This concern is also echoed among student interest groups on campuses across Canada. How do you respond to this critique? (If we associate the University's cultural function with a commitment to our community "to prove that sustainability works"...
APPENDIX II: Towards a Transformed Faculty

List of Participants:

Moura Quayle, Dean, Faculty of Agricultural Sciences
David Shackleton, Associate Dean, Academic, Faculty of Agricultural Sciences
Brian Holl, Chair, Curriculum Implementation Team, retired faculty member

Group interview with members of the Land, Food and Community Teaching Team:
Professor Alejandro Rojas, Professor Jill Condra, Lynne Potter-Lord, Professor Art Bomke,
Professor Brent Skura, Katie Holmes, Marcia Thomson

Interview questions:

1. Is the series guided by an overall vision? If so, please describe this vision.
2. What were the main motivations/intentions involved in initiating the series?
3. How would you describe the process used in the design of the series? Who was involved? Were
   any particular models followed? How were sustainability principles incorporated into the design
   process?
4. How did you approach the use and meaning of values-based and context-specific terminology
   like ‘sustainability’ and ‘citizenship’ in the learning objectives of the series? For example, was a
   consensus-based approach used?
5. UBC Academic Plan: "Students should leave UBC able to contribute positively to society".
   TREK 2000 (UBC’s vision document): “Graduates will value diversity, work with and for their
   communities, and be agents for positive change”.
   How, if at all, have these outcomes had a role in the design of the series? Has UBC’s Sustainable
   Development policy filled a role? If so, how?
6. What do you hope students will learn once having completed the LFC series?
7. Now that the first LFC series has been completed, what have you learned?
8. What have been the greatest challenges?
9. What have been the greatest celebrations and accomplishments (i.e. what have you valued
   most)?
10. What can other faculties/schools learn from this experience?
11. What are the plans for assessment? What criteria will be most important?
12. What are some of the anticipated changes in the Land, Food and Community series? Future
    directions? Areas for improvement?

Student Questionnaires:

1. What is your definition of sustainability?
2. How do you see yourself contributing (if at all) to this goal now and in your life beyond UBC?
3. As a graduating student, looking back, what did you come here to learn? What would be the
   evidence that this has been accomplished?
4. Academic Plan: "Students should leave UBC able to contribute positively to society".

TREK 2000 (UBC’s vision document): "Graduates will value diversity, work with and for their communities, and be agents for positive change".

In your experience, how has the LFC series contributed to these outcomes? What would be the evidence?

5. Has your overall experience at UBC contributed to or hindered your understanding of sustainability? How?

6. Describe your role as a ‘sustainability’ leader. How has the LFC series (AGSC 250, 350, 450) contributed to this role?

Student Videos (Questions for Reflection):

1. What does a sustainability leader look like in terms of skills, competencies and qualities? How does the LFC series fit into this picture?

2. Do you feel like a sustainability leader? Why or why not?

3. How can UBC promote leadership for sustainability among students?

4. If you could change anything about the series, what would it be?

5. What would be the most important thing to keep doing in the LFC series?

6. Is there anything else you’d like to share with incoming students?

Theme Songs Selected for the Student Videos:

“Right Now”, Van Halen
“One Love”, Bob Marley
“Rockefeller Skank”, Fat Boy Slim
“I Hope You Dance”, Leanne Womack
“Excuse Me Mister”, Ben Harper
APPENDIX III: Video - "Land, Food and Community"

Please see attached VHS video.
APPENDIX IV: Promising Initiatives

The SEEDS pilot program, coordinated by the UBC Sustainability Office, promotes internship or applied research opportunities that promote campus sustainability at UBC. Currently entering its third year, it is Canada's only program bringing together students, staff and faculty to address sustainability issues. Students earn academic credit and staff members gain pertinent research to their areas of operation. The pilot was initiated in January 2001 and provides an opportunity for students to apply their academic interests by contributing to the University through research and field study.

Located in Vancouver's Downtown Eastside, the Learning Exchange is a UBC initiative based on the premise that universities have a responsibility to reach out to the larger community and play a role in supporting social change. The Trek 2000 student volunteer program at the Learning Exchange is evolving into a more student-directed program, as well as a service learning approach. The volunteer orientation program currently prepares students to work one on one with members of the Downtown Eastside community. In some cases, these are people with whom the students otherwise wouldn't have interacted. Students experience the other face of education, as well as issues of privilege and power in society. The most common theme among student evaluations, is the demystification of stereotypes. Students have the opportunity to learn first-hand how the Downtown Eastside is a community like any other, with neighbourhoods and networks of community groups, as well as challenge and promise.

The student-initiated program, Humanities 101 is housed within the Faculty of Arts. Co-founder, Allison Dunnet, describes the purpose of the program as 'providing barrier free access to non-credited university education for personal development'. Program funding is used to supply meals, bus tickets and subsidized day care for participants, who are mostly residents of Vancouver's Downtown Eastside community. Volunteer graduate students and faculty engage in curriculum development and course instruction, while undergraduate student volunteers coordinate the various
course sessions. Humanities 101 began in the Fall of 1998, and its success has inspired the creation of Music Appreciation 101, Science 101 and most recently, Entrepreneurship 101.

The possibility of implementing a graduation pledge or sustainability pledge to pursue socially and ecologically responsible employment is currently under discussion at UBC. In the United States, Manchester College coordinates the efforts of a national graduation pledge alliance, whose members consist of nearly 70 colleges and universities nation-wide including Harvard, Princeton and Stanford Universities. Though the wording might vary slightly at each member institution, it basically reads: "I pledge to explore and take into account the social and environmental consequences of any job I consider and will try to improve these aspects of any organization for which I work." Taking the Pledge is voluntary and allows students to determine for themselves what they consider to be socially and ecologically responsible. Instituting the pledge gets at the heart of a good education and can benefit society as a whole. Not only does it remind students of the ethical implications of the knowledge and training they received, but it can help lead to a socially and ecologically conscious citizenry. It can also serve as a focal point for further consciousness-raising around campus. Each year over a million students enter the work force in the US. The impact on our society would be enormous if even a significant minority of applicants and job-holders inquired about or questioned the ethical practices of their potential or current employers.

Whereas the academic process at UBC has largely been one of disciplines taught in isolation, in large lecture theatres with limited opportunity for dialogue and discussion, the University's Trek 2000 vision document "is consistent with the notion of a learning community that strives to enhance student involvement, personal investment in learning, and a sense of identity and individual influence in the community" (PAIR, 2002). Although this type of learning experience differs significantly from that of most UBC undergraduate programs, the University's two largest faculties currently offer four first year Innovative Learning Programs (ILPs) which are designed to achieve
certain types of goals described in Trek 2000. The Faculty of Arts offers Arts One and the
Foundations Program and the Faculty of Science offers Science One and the Coordinated Science
Program. As non-mandatory programs, just over 10% of first year students participate in the ILPs
(PAIR, 2002); however, there are no special requirements or screening processes for admission to
three of the four ILPs. Only Science One requires a separate admissions process, while admission to
the others is based on registration priority, a function of a student’s entering secondary school grade
average.

According to the “Survey of First Year Students in Arts, Science and Innovative Learning
Programs 2000/2001” prepared by UBC Planning and Institutional Research, each program is
interdisciplinary in nature, although the mechanisms for crossing disciplinary boundaries vary, and
is characterized by “team teaching” and small-group learning. Three of the programs offer students
a ‘home base’ for social and academic activities, and all strive to provide students with easy access to
faculty members for support and mentoring. Established in 1967, Arts One is the oldest of UBC’s
four ILP programs. It’s also one of the longest-standing interdisciplinary programs offered in
Canadian universities. The program combines first year English, Philosophy, and History in an
interdisciplinary fashion into one course worth 18 credits of a typical 30-credit, first year course
load. Each year, Arts One is divided into two separate groups consisting of a maximum of 100
students and five faculty members. Each group has a separate theme, such as the 2001-02 themes:
Myths and Reason and Forbidden Knowledge.

UBC’s newest ILP, the Foundations Program, accepted its first cohort of students in September
2000. Central to Foundations is a new curriculum and alternative approach to teaching where
students are exposed to broad themes in both the humanities and social sciences. The program has
two divisions, each of which includes three courses worth eight-credits: Routes to the 21st Century,
Knowledge Bases, and Approaches to Social Understanding. Faculty members work together as a
team to integrate the information and concepts taught in these three courses. In addition, each
course includes a two-hour seminar that is comprised of no more than 20 students. It’s here that
students are able to experience a small learning community to analyze and discuss the course
materials.

Initiated in 1993, Science One builds upon the Arts One model by presenting the traditional
science disciplines—Biology, Chemistry, Mathematics and Physics—in a unified format. Enrollment
is limited to 72 students, and at its core is one, 25-credit course that combines these four courses,
incorporating lectures, labs and tutorials. Like Science One, the Coordinated Science Program (CSP)
attempts to provide students with an integrated understanding of first year Biology, Chemistry,
Physics and Mathematics. All 150 CSP students take their core science courses together (which may
also include non-CSP students). To help integrate the courses, CSP faculty members meet regularly
to coordinate their lecture materials and student assignments. In addition to their four core science
courses, students are broken down into groups of 30 for a weekly two-hour CSP interdisciplinary
workshop where course material is discussed and connections drawn between the disciplines.
Unlike the core courses, which are typically taught in lecture-style format, the workshops encourage
students to participate in lively discussions, debates, student-led presentations, and group projects.
Less academically and socially intensive than Science One, the Coordinated Science program targets
students who want to study first year science in an interdisciplinary manner, but for whom Science
One is less appealing. It’s also another option for those students who were unsuccessful in their
application to Science One (PAIR, 2002).
APPENDIX V: UBC Policy No.5

Policy #5: Sustainable Development
(http://www.universitycounsel.ubc.ca/policies/policy5.html)

Approved: May 1997
Responsible:
  • All Vice Presidents

Introduction

"Human demands upon the planet are now of a volume and kind that, unless changed substantially, threaten the future well-being of all living species. Universities are entrusted with the major responsibility to help societies shape their present and future development policies and actions into the sustainable and equitable forms necessary for an environmentally secure and civilized world." (The Halifax Declaration)

The severity of the problem has been recognized not only by universities, but also by industry. One conclusion from the Business Council for Sustainable Development, Report of the First Antwerp Eco-Efficiency Workshop, sponsored by the Commission of European Communities and the U.N. Environment Program, in November 1993, was: "Industrialised world reductions in material throughout, energy use and environmental degradation of over 90% will be required by 2040 to meet the needs of a growing world population fairly within the planet's ecological means."

As part of its responsibility as an educational and research institution and as a signatory to both the Halifax Declaration and the Talloires Declaration by the University Presidents for a Sustainable Future, UBC provides leadership by demonstrating the means to a sustainable community on campus. UBC recognizes that just as the university contributes to a healthy society and economy through education to build up social capital, we also need to invest in maintaining the ecological services and resources, our natural capital, upon which society depends.

UBC seeks to become a centre for teaching and learning about the skills and actions needed to manage ourselves in a sustainable way. This in turn requires responsible fiscal management that enables the university to continue to pursue these goals.

Purpose

• to develop an environmentally responsible campus community that is economically viable and reflects the values of campus community members;
• to ensure integration of ecological, economic and social considerations at all levels of strategic planning and operations within the University;
to work towards a sustainable future in cooperation with organizations such as the GVRD and the City of Vancouver;

• to assume a leadership role through practising sustainable development and instilling sustainable development values in its graduates and employees, through research, teaching, and operations.

Policy

The University of British Columbia, including its subsidiaries and ancillary operations, is committed to improving its performance in sustainability in all areas of operations. UBC will develop appropriate standards for managing sustainability at UBC. Specific targets, priorities and timetables for achieving these objectives are developed in a consultative process involving faculty, staff and students, as outlined in the procedures of this policy. In the process of meeting the UBC mandate for teaching and research, efforts focus on the following inter-related areas:

• UBC contributes to the protection of its environmental life support systems. This means minimizing the pollution of air, water and soil.
• UBC preserves and enhances the integrity of ecosystems at UBC through careful management, and the development and implementation of remediation measures for degraded sites as appropriate.
• UBC seeks ways to conserve resources and reduce waste. This means developing methods to minimize the energy and material intensity of university activities and reducing waste.
• UBC has information and reporting systems in support of decision making based on sustainable development principles including life cycle, social and environmental costing and accountability to stakeholders.
• UBC seeks to ensure its long term economic viability through responsible and effective management, the development of a comparative advantage in its educational and research activities, innovative methods to calculate and account for external costs, to identify cost-savings and new sources of revenue and through innovative partnerships with the larger community.
• UBC works to enhance its capacity to teach, research and practice sustainable development principles, and to increase ecological/social/economic literacy and practices among faculty, staff, students, and the public at large.
• UBC implements this policy, mindful of the need to balance ecological, social and economic imperatives, in an open and transparent decision-making process with the involvement of all stakeholders.

Procedures

Pursuant to Policy #1, "Procedures may be amended by the President, provided the new procedures conform to the approved policy. Such amendments are reported at the next meeting of
the Board of Governors and are incorporated in the next publication of the UBC Policy and Procedure Handbook.”

Ombudsperson for Sustainable Development

The Ombudsperson for Sustainable Development, reporting to the Associate Vice President Land and Building Services and working with all sectors in the University, is responsible for focusing efforts on the objectives of the policy, promoting the development of sustainability target and action plans of individual units, and coordinating the many sustainable development activities, on-going and emerging, on campus. The Ombudsperson liaises closely with the Environmental Programs Manager and the Greening the Campus coordinator and is the chief contact with the external community about issues and advances in sustainability at UBC, providing linkages for campus and regional efforts. The Ombudsperson coordinates reporting on all related University efforts, include recording and reporting on progress (and lack of progress) and plans for long-term development. The Ombudsperson provides training and guidance to the University community and serves as the central information source about sustainability issues.

Targets and Action Plans of all Units

An action plan will be developed in all units for improving performance in key sustainability areas with clear indicators for targets, by all units, with the assistance of the Ombudsperson for Sustainable Development. Plans will include evaluation guidelines, effective measures of progress, reporting mechanisms and appropriate educational support. Changes to existing practices as well as new and innovative methods are considered during the development of the plan.

Once drafted, the targets and action plans will be reviewed by the Vice President responsible for the area for approval of actions, timing and funding. Administrative heads of unit are responsible for ensuring communication about the goals of the unit’s plan and its implementation once approved. Administrative heads report on their progress annually to the Vice President responsible for the units and send a copy to the Ombudsperson for Sustainable Development Programs for publication of an annual report to the Board of Governors.

Target and action plans are reviewed by the unit every two years, taking into account new technologies and opportunities. The Ombudsperson establishes management systems sufficient and appropriate to UBC in order to develop plans and meet goals for sustainability approved by the Board of Governors.
Education about Sustainability

A coordinating mechanism for enhancing educational efforts about sustainability is the Greening the Campus (GTC) program. The Ombudsperson for Sustainable Development works closely with the GTC Coordinator.

Advisory Committee on Sustainable Development and Greening the Campus

The Ombudsperson and the Greening the Campus program are advised by a committee composed of representatives (faculty, staff and students) of key areas across campus. The Advisory Committee on Sustainable Development and Greening the Campus is advisory to the Vice President Administration and Finance for operational matters and to the Vice President Academic and Provost for academic matters.

The committee's responsibilities are:

- to advise on the Greening the Campus program, in which students, staff and faculty engage in projects to enhance sustainability of UBC operations and to increase knowledge of and develop solutions to sustainability issues;
- to foster the integration of knowledge and issues about sustainability into all relevant scholarly and research activities, the curriculum, and student activities of the University;
- to enhance the capacity of academic units to teach and practice sustainable development principles;
- to assist the Ombudsperson for Sustainable Development to communicate the goals of the sustainable development policy and develop support for them within both operational and academic units of the University;
- to report on Greening the Campus activities annually to the Ombudsperson for Sustainable Development, so that the activities and accomplishments of the Greening the Campus program can be reflected in reports to the Board of Governors.