

3. Please describe the key successes and challenges of your project. (Minimum of two examples for each)

4. What key points of advice or **lessons learned** would you give to other SPF teams either regarding your experience managing your project or the project itself?

Sustainability learning communities 2014-2016

Description

Joint project between the McGill Office of Sustainability (MOOS) and Teaching and Learning Services (TLS) to explore integrating sustainability in things individually and collectively, be it locally or globally, by

Project Overview

GOAL: Transform approaches to teaching within our work so all McGill students, upon completion of their degrees will be engaged citizens with the knowledge, skills, and perspectives necessary to address Sciences (FAES) and

f Integrated Studies in Education (DISE).

Project members:

- x TLS Marcy Slapcoff, Eva Dobler
- x MOOS: Kim McGrath, Lilith Wyatt (until April 2014)
- x Students: Valérie Toupin, Dubé, Frédéric Rivard, Yi Guan (Elaine) Huang, Amanda Winegardner (Graduate Student Assistant, TLS) May Le (Education Intern, MOOS) until Sept. 2014)
- x Faculty: Anila Asghar, Caroline Berger, Elena Bennett, Roger I. Cuevas, Mary Hendrickson, Nelson George McCourt, Caroline Riches, Natalie Waters (until June 2015), Elizabeth Wood

Milestones

- x Established a learning community made up of faculty, students and staff
 - Held monthly meetings on both campuses beginning in December, 2014
 - Created networking opportunities for faculty and students
 -

Selected materials from Sustainability Learning Community

Summary points from education for sustainability research

Learning outcomes and competencies related to sustainability

- o The majority of literature related to learning outcomes and competencies in “sustainability”, “sustainability education”, “education for sustainable development” and “social responsibility” provides broad lists of knowledge requirements and skills. A remaining challenge with these lists is in identifying those unique to

Learning outcomes from the literature relating to sustainability/social responsibility

The literature on education for sustainability and social responsibility refers to learning outcomes, competencies and skills. Although there are nuances in the meaning of these terms, we feel they are equivalent for our purposes and can be used interchangeably. The information in this table is drawn from this literature, and is loosely organized into two columns. The first column “Overarching categories” refers to broad outcomes whereas the second column, “Examples” refers to outcomes related to cognitive, methodological and attitudinal processes and contains a higher level of specificity than level one. References are found below.

1. Overarching categories (See Note A below)	2. Examples (See Note B below): Students are able to...
System thinking competence: the ability to collectively analyze complex systems across different domains (society, environment, economy, etc.) and across different scales (local to global), thereby considering cascading effects, inertia, feedback loops and other systemic features related to sustainability issues and sustainability problem-	

today have consequences long into the future" [3].

- o Design action plans to improve any process-product relationship from an environmental point of view
- o

Sample learning outcomes related to sustainability/social responsibility

Sustainability Learning Communities: Kickoff meeting, December 2014

The literature on education for sustainability and social responsibility refers to learning goals, competencies and skills. Although there are nuances in the meaning of these terms, one can identify two equivalent, methodological and didactical tools (see “Examples” a higher level of specificity than the references are found below.

1. Overarching categories (See Note A below)	2. Examples (See Note B below) Students are able to...
<p>System thinking competence: “the ability to differentiate, analyze, synthesize systems across the boundaries of the subject of local, national and global sustainability issues and sustainability problem-solving frameworks” [1,2].</p>	<ul style="list-style-type: none"> o Explain how sustainability relates to their lives and their values, and how their actions in issues of sustainability o Explain how systems (biological, environmental, social, governmental, economic etc.) are interrelated⁴ o Translate what they know about sustainability to a world stage⁴ o Talk about international, national, and local initiatives to protect and improve the natural and social environment o Understand what impacts whether a local action can be applied to a large⁵ scale
<p>Anticipatory competence: “the ability to collectively analyze, evaluate, and craft rich pictures of the future related to sustainability issues and sustainability problem-solving frameworks” [1,2].</p> <p>Normative competence: “the ability to collectively, map, specify, apply, reconcile, and negotiate sustainability values, principles, goals and targets... This capacity is based on acquired normative knowledge including concepts of justice, equity, social ecological integrity, and ethics; as well as methods and methodologies such as multi criteria assessment and structured visioning” [1,2].</p>	<ul style="list-style-type: none"> o Analyze differing theories about economic, social or environmental development⁵ o Define sustainability o Reflect objectively on the models of individual behaviour and cultural patterns⁶ existing in society⁵ o Detect cause/effect relationships in environmental issues⁵ o Detect cause/effect relationships in social issues⁵ o Explain the historical origins of current environmental concerns

understanding of strategic concepts such as intentionality, systemic inertia, path dependencies, barriers, carriers, alliances etc.][2

Interpersonal competence:

References

1. Vaughter, P., Wright, T., McKenzie, M., & Lidstone, L. (2013). Greening the Ivory Tower: A Review of Educational Research on Sustainability in Post-Secondary Education. *Sustainability*, 5, 2257-2271.
2. Wiek, A., Withycombe, L., & Redman, C.L. (2011). Key competencies in sustainability: a reference framework for academic program development. *Sustainability Science*, 6, 203-218.
3. Redman, E. (2013). Advancing educational pedagogy for sustainability: Developing and implementing programs to transform learning. *International Journal of Environmental & Science Education*, 8(1), 31-34.
4. American College Personnel Association. Sustainability Task Force: Student Learning Outcomes, Assessment Materials & Guidelines. online: https://ctc.cornell.edu/filedepot_download/351/20 (Note: Carleton College also promotes these learning outcomes)
5. Hidalgo, L.A., & Fuentes, J.M.A. (2013). The development of basic competencies for sustainability in higher education: An educational model. *US-China Education Review B*, 3(6), 447-458 (only).

Glossary of terms relating to sustainability, social responsibility and education

Sustainability Learning Communities: Kickoff meeting, December 2014

The purpose of this glossary is to explore the diversity of definitions associated with common terms associated with sustainability and education literature.

TERM	DEFINITION(S) AND SOURCES	NOTES
Education for Sustainable Development (ESD)	<ul style="list-style-type: none"><li data-bbox="401 354 1577 487">o UNESCO allow every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future. ESD means including key sustainable development issues into teaching and learning; for example, climate change, disaster risk reduction, biodiversity, poverty reduction, and sustainable consumption. It also requires participatory	

Resilience	<ul style="list-style-type: none"> o Center for Resilience (Ohio State U) the capacity of a system to survive, adapt, and grow the face of unforeseen changes, even catastrophic incidents. 	<ul style="list-style-type: none"> - See Showstack (2014). - Center for Resilience http://resilience.osu.edu/CFRsite/concepts.htm, see "Rethinking sustainability" - Note: "survivability" is also a term used in corporate scenarios.
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Social Justice Education	<ul style="list-style-type: none"> o Bell (1997)/Hackman and Rauscher (2004) number of key goals that can be distilled into three main areas: social responsibility, student empowerment, and the equitable distribution of resources. All three of 14 0 Td ()Tj /TT3 1 TS7171a39,-4.3(i)804 k.3(n)-0.7(b)-0.ill1 TS0re f 1356ld tj /TT3 1 TS717217 (d) 	
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KeyReferences

Bell, L.A. (1997). Theoretical foundations for social justice education. In M. Adams, L.A. Bell and P. Griffin (Eds.), Teaching for diversity and social justice: A sourcebook (p. 3-15). New York: Routledge.

Council of Ministers of Education, Canada (2012). Education for Sustainable Development Canadian Faculties of Education. Available online: https://cudc.uqam.ca/upload/files/ESD_Dean_reportEN.pdf

Hackman, H.W., and Rauscher, L. (2004). Pathway to Access for All: Exploring the Connections Between Universal Instructional Design and Social Justice Education. Equity and Excellence in Education 37:123-134

McGill Office of Sustainability (Sustainability at McGill). (2014). Vision 2020: A Sustainability Strategy for McGill University. Available online: http://www.mcgill.ca/sustainability/sites/mcgill.ca.sustainability/files/sustainability_strategy_final2.pdf

Saroyan, A., and Amundsen, C. (Eds). (2004). Rethinking Teaching in Higher Education: From a course design workshop to a new framework. Stylus Publishing, Virginia USA.

Showstack (2014). Sustainability as Environmental Framework may be Outdated, Lawyers Argue. Eos 95: 22.

Suskie (2004). Assessing Student Learning: A Common Sense Guide.

Vaughter, P., Wright, T., McKenzie, M., and Stone, L. (2013). Greening (er)3(2013).(n)-0.8)p

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Name: _____

1. How would you rate your experience in the Sustainability Learning Community?

1 2 3 4 5
Very negative Neutral Very positive

Please explain

2. Has anything changed in the way you think about sustainability, teaching and learning? If so, please describe this change and what prompted it.

3. Which processes, tools, strategies, etc. did you find valuable?

4. What would you like to see next for sustainability, teaching and learning?
a. for you as an individual

b. for McGill as an institution?

THANK YOU!