

**Exploring the Development of Student Agency from the
Perspectives of Young Canadian Eco-Civic Leaders**

Elizabeth Glithero

Thesis submitted to the
Faculty of Graduate and Postdoctoral Studies
in partial fulfillment of the requirements
for the Doctorate in Philosophy degree in Education

**Faculty of Education
University of Ottawa**

ABSTRACT

This study investigates how Canadian youth, nationally recognized as eco-civic leaders, perceive their own sense of agency and their capacity to effect ‘change.’ More specifically, this study explores how these youth are interpreting change (i.e., attitudinal, behavioural, social, political, etc.), and what their perspectives reveal about the relationship between school and community-based environmental learning experiences and their capacity to make change in society. This project explores the notion of ‘student agency’ as it relates to an emerging trend of environmental action learning aimed at active citizenship within the fields of environmental education (EE) and to a lesser extent, civics education. Drawing on different qualitative research methodologies, such as but not limited to narrative inquiry, 34 past recipients/finalists of the Toyota Earth Day Canada Scholarship participated in this study. I used three different dimensions of *environmental action learning* to construct the conceptual lens through which the findings were interpreted. My findings suggest a critical gap exists between how EE is widely *practiced* in Canadian schools (i.e., environmentally responsible stewarding), and how it is currently being taken up in recent EE policy and research (i.e., developing capacity to effect broader socio-ecological change). In turn, this research asserts that although we are cultivating ‘good stewards’ and ‘good citizens,’ we are not educating youth toward becoming ‘change agents.’ As such, the majority of youth in this study demonstrate an egocentric perception of their identity and capacity as young eco-civic leaders. Consequently, my research suggests that specific learning conditions, including youth and adults serving as co-participants in community-based action projects aimed at broader social, political, and environmental change, are important in the development of student agency.

ACKNOWLEDGEMENTS

As the common adage goes, “it takes a village to raise a child,” so too does it take a community of special folk to enable one to achieve a doctorate degree. Thanks is due to the community of faculty members, fellow graduate students, and teacher candidates in the Faculty of Education at the University of Ottawa who collectively have served as my mentors, colleagues, and support web throughout this process. Specifically, thank you to Joel Westheimer for serving as my thesis supervisor and to Nicholas Ng-A-Fook, Lorna McLean, and Awad Ibrahim for serving as thesis committee members. Thank you to Marcia McKenzie for serving as my external examiner for my defence. To each of you, thank you for your guidance, encouragement, and valuable comment on the script. Thanks is also due to Ruth Kane and Tracy Crowe for your ongoing mentorship as I became part of the teaching faculty and research community over the past number of years.

To my family and friends, thank you for your encouragement, support, and love throughout this academic expedition.

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INTRODUCTION: Chapter One

If you look at the science that describes what is happening on earth today and aren't pessimistic, you don't have the correct data. If you meet the people in this unnamed movement and aren't optimistic, you haven't got a heart.

(Paul Hawken, *Blessed Unrest*)

Framing the Research—Asking the Questions

My work over the past fifteen years has allowed me to witness firsthand the committed efforts of motivated students and teachers across Canada engaged in school and community-based action projects aimed at environmental well-being. Community cleanups, recycling and composting programs, school gardens and local food-based cafeterias, litterless lunches, no idling and water bottle-banning campaigns, and other behaviour-changing initiatives are examples of student activism that have become commonplace in many schools across Canada over the past decade. This groundswell of environmental education-based (EE) activism is what practitioners and scholars alike frequently refer to as *environmental action learning* (Arnold et al., 2009; Blanchet-Cohen, 2008; Chawla & Flanders Cushing, 2007). Beyond classrooms and school yards in Canada, this movement is also evident in current EE research, policy, and practice in many countries including USA, Australia, Sweden, and the UK (Corcoran & Osano, 2009; Lundholm & Plummer, 2010; McKenzie et al., 2009; Stevenson et al., 2013).¹

The emergence of environmental action learning can be found in recent EE policy frameworks put forth by provincial Ministries of Education in Canada, as well as in several other

¹ Environmental education (EE) is a transnational movement based on global concerns for deteriorating ecosystem services and a mounting awareness of the interdependence of society and nature (Lundholm, 2011). However, EE and environmental action learning get taken up differently (with overlap) in countries. As examples, mainstreaming sustainability discourse is common in Australia, UK, and Canada; deep ecology and *friluftsliv* philosophy are orientations central in Norway, Finland, and Sweden; nature deficit disorder in relation to health, as well as reappropriating dominant economic discourse are important foci in United States, as well as other countries.

international jurisdictions.² The trend towards environmental action learning has also been well documented in broader EE discourse focusing on youth civic engagement (Astbury et al., 2009; Hoffman & Staniforth, 2007; Kozak & Elliott, 2014).³ In the current Ontario EE policy framework (2009), for example, students are seen as “active citizens” (p. 13) and “decision makers to effect positive environmental change” (p. 15); teachers are asked to work towards building “student capacity to take action” (p. 15) and “to effect long-term change” (p. 11); and “systems leaders” (i.e., principals, administrators, policy-makers) are encouraged to make environmental leadership a “whole-system responsibility” (p. 18).

What is central to this emerging trend in EE discourse towards environmental action learning is that it recognizes the need to develop student agency in young Canadians – the idea of building capacity in students to effect broader change aimed at sustainability and socio-ecological well-being. The question remains however, can such personal acts of responsible citizenship— the community cleanups, litterless lunches, and water bottle-banning campaigns that have been implemented so widely in Canadian schools in the context of environmental action learning – drive the broader change being advocated for in current EE policy and theory? With such a systemic focus on individual behavior change in EE practice there exists cause for concern when turning to Schumacher’s words put forth in 1973:

The volume of education continues to increase, yet so do pollution, exhaustion of resources, and the dangers of ecological catastrophe. If still more education is to save us, it would have to be education of a different kind; an education that takes us into the depth of things. (p. 61)

² Three examples include: “Environmental Learning and Experience: An Interdisciplinary Guide for Teachers” (British Columbia, 2007); “Guide to Sustainable Schools” (Manitoba, 2006); and “Acting Today, Shaping Tomorrow” (Ontario, 2009).

³ These three references speak to work done in Canadian schools through two prominent non-formal EE organizations—Green Street (now evolved into Imagine-Action) and Learning for a Sustainable Future.

The passage of time offers perspective. Over 40 years later, Schumacher's words seemingly still ring true. *Pollution, exhaustion of resources, and the dangers of ecological catastrophe* have only intensified since Schumacher first penned these words.

Considering: 1) the rate of change in which we now live; 2) the urgent need to better understand, adapt to, and *effect* sustained environmental, social, and political change in order to build more sustainable livelihoods; and 3) the deep engagement of youth as central to this process—I have become increasingly focused in my praxis on examining how we are interpreting change in relation to the concept of student agency. As I have engaged in this work, questions repeatedly emerged. For example: are we as teachers *really* engaging youth in action-oriented learning aimed at broader change? Are we developing capacity and competencies in youth to actively participate in collaborative processes that lead to social and ecological change? I found hope in seeing the agency and change-oriented rhetoric used in recent EE curriculum policy. However, as I shifted the lens to EE practice, a gap routinely appeared. Our systemic take-up of EE in teacher practice and schooling, broadly speaking, focuses on action learning aimed at individual behavior change (i.e., acts of good stewardship) or a “lifestyle activism approach to socio-ecological change” (McKenzie, 2006, p. 217). This is problematic when juxtaposed with the three aforementioned assumptions. Good stewards, much like good citizens, are not necessarily agents of change (Sears & Hughes, 2006; Westheimer & Kahne, 2004).

There exists a troubling gap between how environmental action learning is being advocated for in more recent curriculum policy (i.e., educating for active citizenship towards broader change) and how it is being taken up widely in the classroom by teachers, students, and schools as a whole. However, this gap could also be described as a lag in terms of curriculum implementation. Similar concerns have emerged within bodies of work in EE research that examine notions of change and agency in the context of environmental action learning. In his unpublished critical analysis of the

concept of change in the EE literature, Kool (2012) found little, if any, evaluative research that focuses on ‘social change,’ ‘systemic change,’ ‘political change,’ or ‘worldview change.’ Kool suggests that we have operationalized change in EE practice as “pushing people to change” – that is to say, pushing students towards short-term attitudinal and behavioural change (p. 8). He concludes that the above approach, and one that is fully congruent with the institutional and political dimensions of our schooling and government systems, has “distracted” us from exploring how to help co/construct learning experiences that might “pull or attract people towards [broader] change” (p. 10). As a field we need to deepen our understandings of what we mean by change in order to extend or reorient our practice with regards to action-oriented education in the context of sustainability. This argument is strengthened when discussed in relation to other EE scholars’ work on “educating for agency” (McKenzie, 2006, p. 219).

In her research, McKenzie (2006) examines three Canadian educational programs that focus on social and environmental change and uses discourse analysis to understand student agency. She puts forth the idea of “contingent agency” which is “constituted subjectivity.” She in turn situates agency as fluid and in “relationship to the relative powers of various discourses over contexts and over time” (p. 201). Moreover, McKenzie’s work suggests learning opportunities are created for teachers and students to engage in “more reflexive and systemic socio-ecological activism” (p. 220). In this light, agency is about “(un)making oneself” in relation to dominant societal discourses and the negotiating or ‘resisting’ of larger systemic forces (p. 220). McKenzie’s critical-oriented work (and others to be discussed in Chapter 2) serves to disrupt conceptions of agency as an individual characteristic or as a manifestation of individualistic will.

Also addressing the problematic nature of EE’s focus on individual behaviour change or what we might call *personally responsible stewarding* is the work of Chawla and Flanders Cushing (2007) on “strategic environmental behavior.” These authors advocate for a “political model of

environmental education,” one that recognizes collective actions in the ‘public sphere’ as the most effective (p. 438). In an effort to better understand how EE can teach toward the “most strategically effective action,” they review literature that focuses on learning processes aimed at engendering *both* responsible environmental behaviour and collective political action (p. 438). What makes the above authors’ work important, I suggest, is that they look to research on political socialization and active citizenship (i.e., civics education research) to help further discussions in EE literature on action and change-oriented education. Rather than using critical, social-ecological perspectives to examine notions of student agency in EE, like Chawla and Flanders Cushing, I chose to use an eco-civic framework. Despite these varying theoretical orientations, the common arc across the above referenced works and the EE field is the argument that we need to move beyond educating for responsible environmental behaviour in our personal lives.

Purpose, Approach, and Research Questions

In this study therefore, I sought to understand how *students* perceive the concept of agency in particular relation to trends towards active citizenship in EE and to a lesser extent, civics education. If youth are to be/become ‘active citizens’ and ‘change agents,’ we must I suggest, gain a better understanding of youth’s perspectives of what agency and action-oriented learning means and looks like to them. Furthermore, I am interested in knowing where these youth perceive to be getting a sense of pedagogical lift-off. In other words, what are the kinds of learning experiences and/or conditions that they identify as formative in cultivating their sense of agency? Finally, I am keen to examine where their perceptions of agency and change, as well as their modes of eco-civic action, fall in relation to the problematic gap between how EE is widely practiced and how it is presented within recent EE curriculum policy and research. I am interested in knowing whether or not this particular sample of youth— young recognized eco-

civic leaders—perceive agency and their acts of/towards change as an individualistic characteristic or as something more, whatever that might be.

To explore the above research interests, my study investigated Canadian youth who have been recognized regionally and nationally for being environmental leaders in their schools and communities. The participants in this study have been identified as civically engaged youth (ages 16-24) working within our schooling system and in the systems and structures of our communities to effect what others have recognized as positive change. I am mindful that these youth are not a representative sample of Canadian youth. Moreover, they collectively represent what others have referred to as the state-constructed ideology of the “good and legitimate citizen” (Kennelly, 2011, p. 8). This acknowledgement creates some tensions that will be discussed in Chapter 2.

Through a narrative-oriented qualitative approach, using questionnaires, interviews, and a focus group as my data sources, three central questions guided my research: (1) How do youth, recognized as eco-civic leaders, interpret their own sense of agency? (2) What are the kinds of learning experiences and/or conditions of learning that these youth identify as having developed their sense of agency—their capacity to make change? (3) What do these youth’s perspectives reveal about the relationship between school experiences in environmental action learning as currently perceived in the field and their capacity to make change in society?

This research suggests a critical gap exists between interpretations of student agency as currently practiced and policy, as well as scholarly perspectives on an approach to EE praxis that is aimed at developing student capacity for affecting broader social and environmental change (Chawla & Flanders Cushing, 2007; Stern, 2000; Wals & Jickling, 2009). Current EE practice, as findings from this research support, is widely focused on the individual student and on the framing of student agency as the encouragement of personal acts of pro-environmental behavior.

This positioning of agency in our practice as teachers falls short in an action-oriented approach to education that is aimed at the cultivation of change agents (Sears & Hughes, 2006; Westheimer & Kahne, 2004). More research attention is needed to address this identified gap between EE practice, policy, and theory. This study adds to the existing conversation taking place in related bodies of work in the EE literature which will be discussed more fully in the next chapter. This study aims to evoke discussion—particularly amongst teachers, school administrators, and teacher educators—on moving toward a better understanding of the *pedagogical translation* of educating for agency and active citizenship that is aimed at broader social, political, and environmental change. How do we teach for agency and change? Can we? Or rather, what learning conditions might we consider when imagining how to co-create experiences with students that support their development (and ours) of agency aimed at change? How can teachers, students, school administrators, educational researchers, and educational policy makers, as well as community-based youth leadership organizations, work more collectively and collaboratively to make this suggested pedagogical leap?

Contextual Assumptions—Change, Sustainability, Citizenship, and Youth

I am a former classroom teacher (2000-2003), a teachers college educator (2006-present), former Education Director for Students on Ice (2004-2008), and a national keynote speaker on EE and youth leadership (2006-present). The concepts of change, sustainability, and citizenship have been central to all of these endeavours. However, it was on one particular expedition in the Arctic in 2006 where I felt the direct interplay between these concepts. On June 21, 2006, I stood on the frozen Arctic Ocean about 60 kilometers out from the Inuit community of Pond Inlet, located on the northern tip of Baffin Island in the Canadian Arctic. I was, at that time, the Education Director for Students on Ice – an internationally recognized organization that takes high school and university-aged students on learning expeditions to the Polar Regions. For those 12 days, we were an

intergenerational and international learning community of 20 people. Coincidentally, Canadian astronaut Steve Maclean, who first went into space in 1992, was at the International Space Station at the same time that we were on expedition in the Arctic. With excitement, we had arranged pre-expedition for Steve to take a satellite image of our ‘floe-edge basecamp’ from space (see Appendix A for photo). In speaking with Steve weeks following the expedition, we asked what were the biggest changes he saw [while looking down at Earth] between his two trips to space over a 14-year span. Without hesitation, he replied: “the amount of deforestation in the Amazon and the amount of ice loss in the very area you were standing when I took that photo.”

This learning experience provided an opportunity to make personal what is often perceived by students and educators alike to be abstract. The scientific statistics associated with these historical times in which we live are often hard to digest or are difficult to connect in relevancy to our daily lives. Either the scale of the issue or the convenience of it being an issue ‘over there,’ can leave us feeling very overwhelmed and/or disconnected with these challenges. In the last 50 years earth has been transformed faster than any other time in the past 200,000 years,⁴ to such an unprecedented extent that many scientists today have acknowledged a new geological era—the Anthropocene—marked by the actions of humans. Learning experiences, like the one I describe above, intimately connect us to these global and planetary challenges, having the potential to transform abstract concepts and numbers into personal issues. They serve to help catalyze the will and the urgency to rethink what global environmental movement crusader Bill McKibbin (2010) puts as: ‘*how to live in the world we’ve created.*’

⁴ For example, according to the Fourth Assessment Report in 2006 by the Intergovernmental Panel on Climate Change: “eleven of the last twelve years (1995-2006) rank among the twelve warmest years in the instrumental record of global surface temperature (since 1850). Retrieved on April 10, 2014 at http://www.ipcc.ch/publications_and_data/ar4/syr/en/spms1.html

McKibbon's (2010) and Hawken's (2007) work are part of a growing body of popular and scholarly literature focused on sustainability⁵ and the critical importance of societies to develop capacity in dealing with a global deterioration of ecosystem services and a mounting awareness of the interdependence of society and nature (Lundholm, 2011). The process of rethinking and transforming our current unsustainable trajectory requires both a shift in consciousness and a shift in civic engagement. There exists an inextricable link between sustainability and citizenship. EE trailblazers Wals & Jickling (2009) describe this intersection best: "A sustainable world without participation and democracy is unthinkable... deep sustainability requires deep participation, while shallow democracy will lead to shallow sustainability" (pp. 78-79). To achieve sustainability—that is to say, to reach a state of planetary well-being where the more-than-human world is not subordinate to the human world—we as citizens (all of us) need to address and transform our deeply buried assumptions about market economics, democracy, and neoliberal ideologies (Klein, 2014; Rand, 2014). Several educational scholars have taken up this challenge through their related work in critical, democratic, eco-justice, and/or socioecological education (Giroux, 2009; Jensen, 2004; Kahn, 2010; O'Sullivan, 1999).

Along with a disruption of our social structures and cultural narratives, we as a society require new ways of thinking. The energy, idealism, and innovation inherent to youth—or what others have named the 'currency of youth'—are resources that are needed to achieve what McKibbon asserts above, perhaps more now than ever. Naturally positioned

⁵ According to the United States Environmental Protection Agency, sustainability is "based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations." Retrieved from <http://www.epa.gov/sustainability/basicinfo.htm>
More generally speaking, sustainability is the "endurance of systems and processes." Retrieved from <http://en.wikipedia.org/wiki/Sustainability>

at the forefront of such reconceptualization, young people are central to strengthening our social foundations, sustaining the environment, and improving our future quality of life as global citizens. For example, a 10 year old girl from India, who in 2005 while attending a workshop on the ecological footprint, ignited internationally a conceptual paradigm shift by advocating for the development of an *ecological handprint*.⁶ The innovative thinking of youth, as illustrated in the above example, underscores the critical role youth can/need to play as active participants in addressing these global sustainability challenges.

Consequently, we need young people to be actively engaged as participants in different community leadership and decision making roles where their fresh conceptions, ideas, and energy can make a difference to the betterment of society and the more-than-human world. Furthermore, the sheer scale of today's youth offers additional rationale as to why we need their deep engagement. As suggested in the 2011 United Nations Population Fund Report,⁷ with "3.5 billion people under the age of 30 living today, this is a "new global power reshaping the world."

Despite "negative public image" of today's youth as disengaged or apathetic in sustaining our democracy (Youniss & Levine, 2009, p. 5), my experience as an educator over the past 15 years has taught me otherwise. As the young parliamentary page who disrupted Canadian Prime Minister Stephen Harper's Speech from the Throne on June 3, 2011 aptly argues:

⁶ Ten year old Srija, visiting the Holy Mary School in Hyderabad, Andhra Pradesh, India, proposed the idea of an ecological handprint when she was participating in a project of the Conference on EE involving taking action for sustainability. At the time, Srija asked: "why are we focusing on footprints? Why are we not focusing on handprints? What can I do with my own hands to build a more sustainable world for everyone?" Handprint has since become an "action and solution-oriented tool designed for today's and tomorrow's leaders of sustainability." See www.handprint.in

⁷ Retrieved at <http://foweb.unfpa.org/SWP2011/reports/EN-SWOP2011-FINAL.pdf> (see page 9)

We are not just about our Macbooks and caramel lattes! The youth I've met across Canada are engaged, motivated, pissed off, and fearless... Certainly, many young people in Canada are not engaged. Why aren't youth even voting? Why aren't youth taking to the streets in the same numbers of the 60s and 70s? It's easy to get the wrong impression—that we're apathetic. But young people in Canada care deeply. The problem is we are trapped in a structure that bars us from meaningful engagement... The other problem is that *we don't know how to make change*. (DePape, 2012, p. 19, my emphasis)

Although DePape's reflection offers a personal statement on the broader context of youth engagement in Canada today,⁸ it does suggest that we as a society, public education included, are not creating learning experiences to develop agency aimed at broader social, political, and ecological change in our youth. This study set out to gain a better understanding of the development of student agency, including the necessary learning conditions, from the experts themselves—young people.

Situating Two Key Concepts— Student Agency and Relationality

Rooted in the field of cognitive development, psychology, and self-awareness studies, 'agency' or 'sense of agency' is best described by Gallagher (2000) as "the sense that I am the one who is causing or generating an action" (p. 15).⁹ Cultural anthropologist Ahearn (2001) defines agency as the "socioculturally mediated capacity to act" (p. 112). Agency is also explored in sociocultural theory in education (Lantolf & Poehner, 2008), including considerations of student agency in relation to "academic identity" (Jackson, 2003), as well as personal identity (Duff, 2012; Hawkins, 2005; Van Lier, 2007). As an example, in her research on student agency in the classroom, Hawkins (2005) describes agency as a student's "actions stemming from his [sic] understandings of this space and who he [sic] could (and wanted to) be

⁸ In referencing this act of civil disobedience and DePape's words of reflection on the act, I am not necessarily condoning her chosen act, but rather drawing attention to her message wherein lies the value.

⁹ Also see the work of Roessler & Eilan [Eds.] (2003).

within it” (p. 78). The above framings of agency focus on the individual and issues related to individual identity.

More specific to this research, agency has been taken up to varying degrees in a few different although related bodies of work within the EE literature. These include: 1) older but relevant EE work on “significant life experiences” (Chawla, 1999; Hungerford & Volk, 1990; Palmer, 1993; and Tanner, 1980); 2) “action competence” research (Almers, 2013; Chawla & Flanders Cushing, 2007; Schnack, 2000); 3) critical socio-ecological perspectives (Barrett, 2007; Lousley, 1999; McKenzie, 2006/2009); and 4) recently popular EE work on “social learning” (Wals, 2007). These bodies of work, including a review of several empirical studies on the topic of agency, will be examined in the next chapter. For now, I want to discuss how I am orienting the concept of “student agency” in this study.

In returning to McKenzie’s (2006) work, her framing of agency as “contingent” and always in relation with dominant discourses directly aligns with Kennelly’s recent work (2011) on youth cultures, activism, and agency within the broader youth studies literature. In building upon “long-standing” feminist debates (i.e., Benhabib, 1999; Butler, 1995; Lovell, 2003; McNay, 2000), Kennelly (2009a) offers a definition of agency— “that is at its core relational” and largely ‘political,’ as “the capacity to take action within the realm of the public” (p. 259). In using the Rosa Parks story as an example, Kennelly puts forth the concept of *relational agency*, an orientation that accepts but also extends Lovell’s work (2003) on framing the locus of agency within a collective. Kennelly suggests that it was a “set of relationships” for Park, as a member within a community of activists (i.e., Highlander Folk School) that provided her agency. More so, it was Park’s belonging in and relationships to/within a collective that provided her with the “resources, knowledge, and capacity to take that enormous risk” (p. 116).

Like Kennelly, I am positioning agency as one's capacity to take action in the public sphere (as opposed to agency in the form of personal acts of 'responsible' behaviour—i.e., being a 'good steward'). Also like Kennelly, I understand agency to be something that is cultivated through our relationships with others who are oriented towards change and in relation to our shared learning experiences that are oriented towards developing our collective capacity to effect such change. However, unlike Kennelly, I also understand agency to be cultivated through our relationships with the more-than-human world, through a relational, ecological ontology (Glithero & Ibrahim, 2012; Scott, 2010; Sterling, 2009). It is the idea that our engagement with agency (or with knowledge, subjectivity, citizenship, etc.) be "ecologically conceived" (Code, 2006, p. viii). That is, we come to know the world and act in the world through wider biocentric awareness. For me, agency comes from a space of ethical knowing—"a responsiveness to what is appropriate here and now" in such anthropocentric times (Davis, 2004, p. 176).

In contrast, Kennelly's work takes up relationality through the lens of identity and notions of belonging within the logic of liberal, humanist thinking. She examines the idea of relational agency through identity and the intersectional domains of race, class, and gender. Her work offers a powerful critique of notions of youth citizenship within a neoliberal era. My approach does not negate in anyway the role that these critical lenses play when exploring notions of student agency and youth activism. Rather for me, my approach to a relational understanding of agency is framed by ecological thinking. Ontologically, I have always had an "I-Thou" relationship with the natural world (Buber, 1970). Pedagogically, I am guided by a relational approach that is taken up primarily through a blend of outdoor experiential, place, and inquiry-based learning. I view teaching, much like Davis (2004), as "creating the conditions for the emergence" of possibilities (p. 184). Nell Noddings, in Bingham & Sidorkin's (2004) book, *No Education Without Relation*, also reminds us "that the benefit of a relational pedagogy is a

deeper, more genuine appreciation for democracy” (p. viii). Every participant—student and teacher—in the learning process has talents that are a valued part of our interdependence. In this light, relationality is taken up in this study through a prioritized understanding of the importance of relationships, both human-to-human and to the more-than-human.

A quick point needs to be made on the concept of identity. Although I am not examining student agency through the lens of subculture identity as in Kennelly’s work, I do explore whether or not the youth in this study—having been recognized for their environmental leadership—self-identify as eco-civic leaders. In this context, I explore identity as one of four analytic aspects in examining my first research question—how do these youth interpret their own sense of agency? The other three aspects (see Chapter 5) include: 1) their perceived capacity (or not) as an eco-civic leader; 2) their perceptions on the concept of change; and 3) their perceptions on the concept of agency. Of particular interest, I examine what relational insights emerge between the youth’s perceived *identity* and *capacity* as young eco-civic leaders. I recognize that my take up of identity in this study is limited, partial, and neglects to address the domains of marginalization that are central to cultural studies research focusing on identity.

With these positional considerations on agency, relationality, and identity established, this research builds a theoretical argument for the need of an eco-civic action learning framework. As part of this broader argument I propose a conceptual framework on ‘three kinds of environmental action learning’ in the context of student agency to serve as a tool through which current EE practice can be more critically examined. Although I have outlined above my orientation to the concept of agency as the capacity to effect change in broader spheres (i.e., collective, social, public), based on the central argument of this thesis, my framework must also recognize where EE practice is currently situated. Presented and discussed in Chapter 4, my conceptual framework acknowledges what I am naming *environmentally responsible stewarding*

as the first kind of environmental action learning. This is followed by two further kinds, including: *participating in community eco-civic action* and *effecting socio-ecological change*. Within the first kind of environmental action learning, individualistic characteristics are recognized as the early seeds of agency upon which a ‘deeper reflexivity’ and ‘collective competencies’ that lead to effecting community and socio-ecological change can be cultivated (Chawla & Flanders Cushing, 2007; McKenzie, 2006).

Situating Engagement, Leadership, and Activism in Relation to Agency

This study and the conceptual framework strive to engage classroom teachers, teacher educators, and school administrators in necessary dialogue on how to support teachers – across the curriculum— in creating conditions that enhance learning aimed at broader change in the context of sustainability. How then, might we situate a discussion on student agency in relation to terms that are used more commonly in classroom practice and schooling discourse— engagement and leadership? As well, it is worth briefly discussing a related term that is largely void in the same aforementioned setting—activism.

Student/Youth Engagement

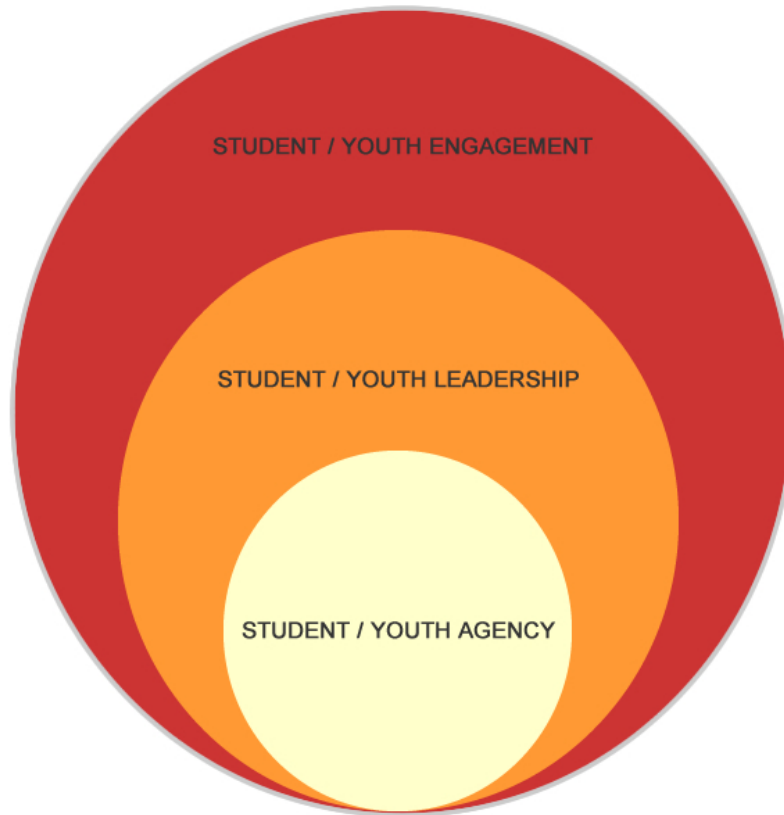
According to the Centre of Excellence for Youth Engagement in Canada,¹⁰ youth engagement is defined as “the meaningful and sustained involvement of a young person in an activity focusing outside the self.” In working from this definition, youth engagement thus entails the ‘locus of involvement’ to move beyond the individual. In other words, such engagement involves participating within a ‘collective’ sphere whether that is the family, school, community, and/or society at large. More specific to this study, EE researcher Chawla (2001) defines youth engagement as “a process in which youth engage with other people around issues that concern their individual and collective life conditions” (p. 9). Embedded within these

¹⁰ See www.engagementcentre.ca

working definitions are the related and topical concepts (in the context of formal education) of ‘student voice’ and ‘student empowerment.’ Building on these definitions, I situate *youth engagement* as community-based “involvement” and “participation” that may (or not) include promoting environmental and/or social change. Moreover, *student/youth agency* is about direct action or more “strategic actions” (Stern, 2000) and collective action to effect such change. For example, a young person may be active in a school environmental club that does monthly schoolyard cleanups and manages the school’s recycling program (i.e., youth engagement), whereas another youth may serve as an equal voting member of an intergenerational municipal committee that is working on legislating and implementing an environmental protected area in their community (i.e., student/youth agency).

Youth engagement and student/youth agency, despite the above distinction, are nonetheless parts of a shared spectrum. They are not mutually exclusive (i.e., ‘either/or’). Youth engagement is the foundation from which student/youth agency has the potential to be developed. A young person needs to be ‘engaged’ before they can cultivate the skills, know-how, relationships, and networks to drive change. These ideas are represented in Figure 1 below. Using the analogy of a topographical map, these related concepts are depicted as contours of the same topography.

Figure 1: A Nested Relationship between Engagement, Leadership, and Agency



Student/Youth (Eco-Civic) Leadership

In building on the above concepts and working definitions of youth engagement and student/youth agency, youth leadership or in the context of this study—‘youth eco-civic leadership’—needs also to be discussed. Youth leadership in the field of EE is typically discussed using such common terms as “environmental leaders,” (Arnold et al., 2009) or “environmentally active citizens” (Blanchet-Cohen, 2008; Chawla & Flanders Cushing, 2007; Schusler et al., 2009). Eco-civic leadership is a concept that I have regularly used in my own practice as an educator over the past 15 years. The term ‘eco-civic’ does appear in the educational literature. For example, Ng-A-Fook (2011) uses the term “eco-civic responsibilities” in the context of social action curriculum project (SACP)-based learning. His

interpretation of eco-civic responsibility is taken up through an Indigenous, post-colonial, and social justice-oriented lens. In other related work, Ng-A-Fook (2010) talks about “environmentally responsible citizenship,” drawing on Westheimer and Kahne’s (2004) notion of democratic citizens, as well as ecojustice pedagogy (p. 50). Ng-A-Fook’s work on SACP offers a decolonizing learning model aimed at cultivating social change. For me however, the term ‘eco-civic responsibility’ falls short when speaking about a mode of learning aimed at broader social change. Whether personal or collective, *responsibility* does not necessarily equate to *capacity* for (effecting) change. Exploring this particular distinction is where my use of the term *eco-civic leadership*, as part of a more focused discussion on the concept and development of student agency in the context of an eco-civic action learning framework, extends the above work.

Youth eco-civic leadership refers to a young person taking a lead role (individually or collaboratively) in organizing and mobilizing others around a particular community-based environmental issue they find relevant. This young person is more than simply involved as a *responsible* participant (i.e., youth engagement); they are deepening their participation by assuming a leadership role. As depicted in Figure 1, youth (eco-civic) leadership falls between youth engagement and student/youth agency. Early in the sphere of youth (eco-civic) leadership, a young leader’s efforts might be focused on mobilizing her peers around a school recycling or water saving initiative aimed at environmental behavior change. A more developed young eco-civic leader might engage her peers in organizing a community rally to pressure local government on a particular environmental issue of interest to youth, an act that moves such a young leader towards the development of student agency.

Student/Youth Activism

Activism can be an uncomfortable word for people, especially teachers, school administrators, and parents. Thanks largely to mainstream media and political portrayals, activism, in the general public, is commonly associated with violent protests, inappropriate or unwarranted acts of civil disobedience, or – specific to the environmental movement – acts of ‘eco-terrorism.’ Educational stakeholders, as a whole, avoid using the term *activism* (i.e., “active citizens” is okay, “activists” not so much). Yet, when it comes to emerging trends in EE policy and literature as discussed earlier in this chapter, students are encouraged to become “active citizens” (Ontario EE policy framework, 2009, p. 13) and teachers are asked to work towards building “student capacity to take action” (p. 15). Likewise, the emergence of the field of Action Civics in the civics and youth development literature has an explicit aim to support students in taking “action, especially collective action” (Gingold, 2013, p. 6). If we are advocating for our students to become ‘active citizens’ and/or ‘change agents’ in our communities, then we *are* aiming to foster an ethic of activism among today’s youth.

I suggest that we need to reinterpret and/or reclaim the word activism in education—at least in environmental and civics education discourse where learning aimed at ‘active citizenship’ is most prominent. As Rosie, a youth participant in this study shared:

Does activism have to be about jumping in front of a machine that’s going to build a pipeline or... do[ing] something like Sea Shepard’s and you actually go and stop a whaling vessel? I think an activist is more just someone who is dedicated to whatever they’re passionate about and they are willing to try to get the message out there, to try and make some sort of change, whatever it might be.

As educators, how might we develop a culture of youth activism as a significant part of what environmental action learning and Action Civics is striving to achieve. I am mindful of the different labels or ‘speak’ we are using today, whether that is practitioners, policy-makers,

and/or researchers, me included (i.e., I use the term ‘young eco-civic leaders’ as opposed to ‘youth activists’ in this study). A return to Kennelly’s (2011) work can help clarify the tensions within education around the concept of activism. In particular, it is Kennelly’s discerning of the relationship between notions of ‘youth citizen’ and ‘youth activist’ that is most helpful to this discussion. The former, she suggests, is associated with “qualities and characteristics that are desirable to the nation-state” (p. 3). The latter on the other hand, sits in an “uneasy coexistence” in which its qualities shift in recognition between those that are desired and those that are not (p. 3).

If cultivating capacity to effect broader change is central to our understanding of educating for student agency, then activism, as positioned by Kennelly above, is part of this constellation. To effect broader collective and social change will require our social structures, systems, and agencies of power within to be disrupted and transformed— the education system included. To embrace activism as a part of educating for agency is to explicitly accept that our education system needs to change in fundamental ways. Several researchers, using different approaches, have taken up a critical analysis of what those changes are (see Gatto, 2005; Giroux, 2009; Gough & Scott, 2007; Jensen, 2004; O’Sullivan, 1999; Sterling, 2001). What is of central relevance to this study is to see what insights emerge from a youth perspective around notions of activism as part of (or not) their understanding(s) of student agency, as well as in relation to the learning experiences and/or conditions that they identify as formative.

Two Final Notes on the Concepts of Youth and Change

The concept of youth has been understood as an age-specific demographic, a category that is often associated with such common descriptors as ‘dependent,’ as well as “limited,” as is the case in some education for sustainable development literature (Corcoran & Osano, 2009, p. 19). To the contrary, I see youth as beacons of emergent possibilities, as experts on creativity,

risk, resiliency, action, and love. Although we are all “cultural agents” working to understand and negotiate “how agencies of power work,” there is an energy that is fiercest in youth to see/make things different (Ibrahim & Steinberg, 2014, p. xvi). It is from this perspective that I see youth, and through them, our biggest hope for change. Furthermore, when speaking of the concept of change throughout this research, I understand change as individual (i.e., behavioural, attitudinal, and worldview) and collective (i.e., social, political, and environmental).

Organizing the Thesis

This thesis is organized into seven subsequent chapters. In Chapter 2, I situate this study and the central concept of student agency within the educational literature. Chapter 3 outlines the conceptual framework that I used to guide my research process. The methodological and analytical approach for this study is shared in Chapter 4. Chapter 5, framed by my analysis of the findings from the questionnaire and focus group data, presents the argument that current EE practice in school-based environmental action learning stems from an interpretation of ‘change’ as individual behaviour change and personal actions. In other words, one’s personal actions and choices are the primary vehicle for change, as opposed to for example, collective action in the social sphere. In Chapter 6, I extend the above argument by asserting, based on my analysis of the interviews, that EE as currently practiced in Canadian schools is, generally speaking, more about creating ‘good stewards’ and ‘good citizens,’ not ‘change agents’ as recent EE policy and theory advocate. Chapter 7 goes on to provide a comprehensive discussion of the three central narrative themes emergent from my overall findings, including: 1) the value of both egocentric and eco-centric thinking in environmental action learning discourse; 2) the importance of learning conditions; and 3) the need for youth-adult relationships in which students and teachers are co-participants in community-based action projects aimed at broader social and ecological change. These themes serve as important considerations for teachers concerned with learning

that is aimed at cultivating student agency. Chapter 8 offers a conclusion that discusses the implications and contributions of this research.

LITERATURE REVIEW: Chapter Two

I believe that educators must become students of the ecologically proficient mind and of the things that must be done to foster such minds. In time this will mean nothing less than the redesign of education itself.

(David Orr, *Earth in Mind*)

Situating the Field

This study is situated within the fields of EE and civics education. They are distinct fields in educational literature that might also be perceived as being at odds epistemologically. Environmental educators have long been concerned with our relations to the Earth (Hungerford, 2010; Marcinkowski, 2010) as part of their ecologically oriented thinking. Civic educators, with their intense focus on human and political socialization and the relational preconditions of learning and teaching that propel democratic life (CIRCLE, 2003; Youniss & Levine, 2009), hold a perceived humanistic stance. Such a stance might not include a wider reverence for planetary well-being.

The recent trend in EE has been towards conceptions of active citizenship. Likewise, recent findings in the field of civics education suggest ecological thinking is an important part of “social-movement” thinking increasingly evident in today’s youth (Shiva, 2005; Smith & Pangsapa, 2008; Stolle & Cruz, 2009; Youniss & Levine, 2009). According to Chawla and Flanders Cushing (2007), there is value in examining the overlap between these different fields of research. In particular, overlapping interpretations of action-oriented learning and notions of educating for agency are of particular importance to this study. We need to identify other “dimensions of action,” including education for “collective political action,” that have been taken up in fields outside of EE (p. 438). Although more research is starting to look at convergences of these two fields when discussing notions of sustainability, social justice, and

citizenship in relation to youth action (see Appendix B—Kozak & Elliott, 2014; Wals & Jickling, 2009), few empirical studies have taken up this emerging body of work through an eco-civic action learning framework. Such a framework may serve alongside other bodies of EE research to help nudge the systemic take-up of EE practice in classrooms and schools beyond a focus on individual behaviour change.

Philosophical Assumptions

My epistemological approach is guided by an ecological participatory worldview (Code, 2006; Sterling, 2001). Although mindful of social constructionism insofar as it recognizes how knowledge and meaning are socially constructed through situated intersubjectivity (Berger & Luckmann, 1967), for this thesis I conceptualize a theory of knowledge in which “relationships are primary” (Hendry, 2007, p. 492), including our relationship(s) with the more-than-human world. Social constructionism may suggest a “radical interdependence” between us and the world (Crotty, 1998, p. 45). Whereas, ecological thinking demands “wider biocentric concerns” (O’Sullivan, 1999, p. 64).

Theoretical Orientation of EE

EE has long been oriented around the “knowledge, values, attitudes, commitment and skills needed to protect and improve the environment” (UNESCO, 1977, p. 26). Environmental educators have believed that the fostering of pro-environmental attitudes in students, primarily through in-nature experiences and environmental literacy, would lead to ecologically responsible behaviour (Hungerford, 2010; Marcinkowski, 2010; Swayze, 2009). Several reviews of the EE literature reveal that the development of pro-environmental attitudes alone is not enough to change behaviour (Bell et al., 1996; Monroe, 2003). The research also illustrates a false perception in the EE field exists: “that *telling* someone to behave in a certain way and providing sound reasoning to support that command equals *teaching behavior*” (Heimlich & Ardoin, 2008,

p. 231). Furthermore, a growing volume of research suggests that EE's long-standing focus on enhancement of pedagogy aimed at responsible environmental behaviour needs to shift (Blenkinsop & Egan, 2009; Sterling, 2001). More research is needed that examines broader notions of change and on the process of educating for and effecting change (Kool, 2012).

More and more, environmental scholars and teachers understand EE as part of the broader "sustainability agenda" (ARIES Review, 2004). As others have noted, the field of EE has expanded beyond learning *about* human-Earth relationships (i.e., nature conservation) and having meaningful experiences *in* the environment (i.e., outdoor education)—the focused priorities throughout the 1970-1980's (Hungerford, 2010; Marcinkowski, 2010)—to embracing more action-oriented learning that aims to educate *for (and as)* sustainability¹¹ (Orr, 2004; Sterling, 2001; Stibbe, 2009; Wals, 2007). As scholarly efforts build with regards to the education for sustainability movement, principles of ecological processes, living systems, leadership, and emergent, adaptive learning models are increasingly being explored (Capra, 2000). Such work is collectively, although variedly, aimed at negotiating and creating a more sustainable and just world than our current trajectory. Stripped down further, this work is about creating change and looking to education as a public space to cultivate the necessary capacity in young(er) citizens to effect such desired and necessary change. Despite these theoretical and critically important efforts, there still seems to be a significant gap between how this work is

¹¹ Education for sustainability is often used interchangeably with education for sustainable development (ESD) despite tensions. There are ongoing discussions (and debates) about the relationship between EE and 'Education for Sustainable Development' (ESD) (Gadotti, 2004; Hopkins et al., 1996; Kahn, 2008; Marcinkowski, 2010). In 1987, the Brundtland Commission led by the Chair of the World Commission on Environment and Development (WCED) Gro Harlem Brundtland, and the document *Our Common Future*, offered a definition of Sustainable Development that has become the accepted norm (WCED, 1987). With a United Nations endorsed Decade (UNDESD) from 2005-2014, the ESD movement is an international development initiative with a politically global sustainability agenda. Prominent ESD writers have noted that "the roots of ESD are firmly planted in EE" (Hopkins et al., 1996, p. 8). Critics, on the other hand, argue that 'environment' in the context of ESD discourse is viewed with respect to (human) development and thus is embedded within a broader anthropocentric worldview (Marcinkowski, 2010; Sterling, 2001).

being taken up in EE policy (i.e., rhetoric around ‘agency,’ ‘active citizenship,’ ‘effecting change as a system’s responsibility’ as examples in the Ontario Ministry of Education (2009) framework) and how it is (not) being taken up in EE practice in school classrooms, generally speaking.

As a teacher, teacher educator, and educational consultant for public school boards, I see a gap in the *pedagogical translation* of educating for agency and change in relation to the contexts of living sustainably. What might educating for agency and change look like in the classroom? How might we create a “learning culture” in which relationships, collaborative learning, and “the freedom to make mistakes” are encouraged (Capra, 2007, p. 14)? These conditions have been identified as central to learning that is aimed at creating a more sustainable world (Wals, 2007). My research aims to illuminate some insights from a particular group of youth as to a few learning conditions worth considering when educating for agency and change.

Situating the Concept of Student Agency in EE Research

Research on student agency and/or action-oriented learning has largely been taken up in the field of EE through four main bodies of work. To recap, these include: 1) older but still relevant work on “significant life experiences” (Chawla, 1999; Palmer, 1993; Tanner, 1980); 2) “action competence” research (Blanchet-Cohen, 2008; Chawla & Flanders Cushing, 2007; Schnack, 2000); 3) critical socio-ecological perspectives (i.e., Barrett, 2007; Bell & Russell, 2000; Bowers, 2002; Gough, 1999; Grunewald, 2003; Hart, 2005/2012; McKenzie, 2006/2009; etc); and/or 4) recently popular and related areas of EE research such as “social learning” (Wals, 2007). Each of the above pertinent bodies of work in EE inform this study to varying degrees.

Significant Life Experience (SLE) Research

A number of empirical studies in the EE literature have examined the formative influences, significant life experiences (SLE), and/or life stories of young (and young adult)

environmental leaders in a variety of countries. Much of this research draws on the foundational work of Chawla (1999), Hungerford and Volk (1990), Palmer (1993), and Tanner (1980) and involves researchers inquiring with adult environmental educators and activists as to the “sources of their environmental interest, concern or action” (Chawla & Flanders Cushing, 2007, p. 439). Consistent conclusions continue to be reinforced by more recent SLE-oriented studies in EE. Using a Canadian-based study, Arnold’s et al. (2009) research draws from interviews with a dozen young environmental leaders (age 16-19) from Nova Scotia, Canada. Her findings highlight what youth perceive as key *influences* on their ‘environmental action’ (p. 27). Such influences include “parents, experiences outdoors in childhood, friends, role models, teachers, and youth groups and conferences or gatherings” (p. 27). In turn, these findings are consistent with prior research on SLE of adult environmentalists. Moreover, this research continues to support long-standing models on key factors that contribute to responsible environmental behaviour (Hungerford & Volk, 1990).

Similarly, Almers’ (2013) work, based on a phenomenological study that used narrative analysis of the life stories of three Swedish young adults (mid-twenties), identifies six core themes. Almers’ themes include: 1) Emotions creating a desire to change conditions; 2) A core of values and contrasting perspectives; 3) Action permeation; 4) Feeling confident and competent with what one can contribute; 5) Trust and faith from and in adults; and 6) Outsidership and belongingness” (p. 116). Almer suggests that these themes are “important circumstances” in the development of an action competence (p. 121). Her findings serve to extend previous SLE research by shifting the focus from identifying key influences on one’s environmental action and toward illuminating specific competencies that support effective action.

The principal focus within SLE work is to gain a better understanding of participants' perceived sources of commitment to, motivation for, and/or involvement with 'environmental action.' My research moves beyond an examination of the motivational influences behind student participation in environmental action and explores specifically the developmental process of student agency from a youth perspective. In other words, rather than focusing on why or how students became involved in acts of responsible environmental behaviour, I wanted to explore how youth interpret their own capacity to effect change. Do students think they are capable of 'making change' in society? If so, what kind of change? What kinds of learning experiences led them there? And in what ways do/might youth go about 'making change' in society? SLE research offers my study a weighty evidence-based understanding of the kinds of learning influences and experiences that motivate responsible environmental behaviour and empowerment (Hsu, 2009). This knowledge serves as a useful starting point when considering where current EE practice in schools is at and where environmental action learning, in the context of student agency, needs to go.

Action Competence Research

In reviewing the EE literature, student agency is most commonly examined in the context of "environmental action" (Arnold et al., 2009; Bigger & Webb, 2010; Schusler & Krasny, 2010; Schusler et al., 2009) and "action competence" (Almers, 2013; Barrett, 2006; Schnack, 2000). Environmental leaders engaged in 'environmental action' are identified as having developed an 'action competence' (Almers, 2013; Arnold et al., 2009). Schusler et al. (2009) define 'environmental action' as a "process of co-creating environmental and social change while building individuals' capabilities for further participation contributing to personal and community transformation"(p. 124). Similarly, Almers (2013) borrows Schnack's (2000) definition of 'action competence' – "a capability– based on critical thinking and incomplete

knowledge- to involve yourself as a person with other persons in responsible actions and counter-actions for a more humane world” (p. 117). Almers then extends Schnack’s work by arguing for the development of an ‘action competence *for sustainability*’ (p. 117, my emphasis). In both of these definitions, there exists a collective dimension to action competence-based learning.

Other empirical studies in this area of research however, seem to interpret agency through an individualistic lens. As an example, Blanchet-Cohen’s (2008) study focused on exploring ‘child agency’ in early-adolescents (ages 10-13) through the context of *environmental involvement*. Her work pointed to six dimensions of environmental involvement including: “connectedness, engagement with the environment, questioning, belief in capacity, taking a stance and strategic action” (p. 257). A framework (see Appendix C) was created based on these six dimensions of agency to analyze environmentally engaged children’s narratives, leading to what the author identified as “four profiles” of environmental involvement. Her four profiles include: the *initiators*, the *creative*, the *members*, and the *grounded* (p. 268). Most pertinent to my study was the profile of the ‘initiators’ and their dominant tendency towards the sixth dimension—strategic action.

In describing strategic action as the sphere in which children “define and select their approach to addressing environmental issues,” I was surprised, although mindful of the participants age, that the identified environmental ‘action’ activities in this research fell under such classifications as “recycling,” “restoration,” and the “study of nature” to name a few. This is not to devalue the spectrum of modes of environmental involvement that exist and their respective importance. Nor am I dismissing Blanchet-Cohen’s *rainbow framework* as a (very) useful conceptual tool for exploring the developmental stages of child agency. Rather, the limiting factor for me is how the author took up an examination on agency through the lens of

“involvement in environmental activity” (2008, p. 267). Such an interpretation suggests that agency, in the context of EE practice in schools, is about student participation in personal acts of stewardship (i.e., recycling, community cleanups, etc.). However, when discussing ‘strategic action,’ a deeper exploration on the different modes of action did not take place. In other words, the sub-dimensions or range of forms of ‘strategic action’ in order to better support the development of children’s agency is absent within this study. To address this gap, we might turn our attention toward the area of action competence research.

In particular, there is a smaller body of work that builds a direct relationship between environmental action learning and education for active democratic citizenship (Driskell, 2002; McClaren & Hammond, 2005; Schusler & Krasny, 2010). Schusler and Krasny’s (2010) work on developing citizens and positive youth development (PYD) focused on the aims motivating educators to involve youth in environmental action. Nine ‘practice’ themes, based on their findings from educators’ narratives on youth environmental action projects, emerged. These nine themes were: “creating safe spaces, providing structure, building relationships, bridging differences, setting expectations, providing opportunities for meaningful contribution, supporting youth, connecting youth with their community, and expanding horizons” (pp. 218-219). Although these emergent themes—or strategies for teacher practice—serve as important background to this research, my study moves beyond a general focus on PYD to examine specifically youth’s capacity to make change—or student agency. That is, the above authors examination of ‘best practices’ in facilitating environmental action learning ends in relating these key themes to the development of “learners’ capabilities to participate as citizens in democratic society” (p. 209). The authors do not fully discuss what kinds of participation or actions it is that we are trying to cultivate and how these themes inform deeper discussions on the design of learning processes that lead to effecting the desired actions and change.

In referring to Westheimer and Kahne's (2004) work on 'kinds of citizen,' Schusler et al. (2009) suggest more research is needed to understand exactly "what kinds of competencies." The authors offer a preliminary framework to highlight the relationship of youth participation in environmental action towards multiple goals of individual and community development (see Appendix D). What is less developed however is the notion of action competence dimensions in relation to their proposed framework. It is unclear as to whether the same action competencies are needed to reach both "personal, environmental and community transformation" (p. 124). Is the same knowledge, commitment, visions, action experiences and perhaps others needed to achieve personal, community, and environmental change? Are different competencies needed within each of these dimensions? Is this approach toward learning too prescriptive? Does a determined set of competencies translate toward action that in turn changes our relations with the more-than-human world?

Mindful of such curricular and pedagogical concerns, I return to Chawla and Flanders Cushing's work (2007) on "strategic environmental behavior." These authors discern that EE needs to "emphasize" certain types of environmental action—strategic, collective, political—in order to effect change. They argue for 'strategic action' in the 'public sphere,' including advocating for a "political model of environmental education" (p. 346). Although not empirical, their research conducts an extensive review of the educational literature that focuses on responsible environmental behaviour (i.e., EE literature) and collective political action (i.e., civics literatures). However, in their review they do not cite literature that takes up the notions of agency, action-oriented learning, and social change through critical socio-ecological and other perspectives. Nonetheless, these authors put forth some important "practical applications" for environmental educators to consider. These include: role models and mentors, everyday life experiences, participation in organizations, discussion, achieving success, social network, age-

appropriate initiatives, development of action skills, personal significance, and parent involvement (see Appendix E for full table). My empirical study contributes, in part, to the extension of their proposed considerations for environmental educators.

To begin, my research provides a *youth* perspective on learning conditions that is under-represented in the EE literature. More often than not, research in this area has been based on teachers or adult environmental educators perspectives and experiences. Second, this thesis is less aimed at putting forth overarching recommendations for educators to consider in their practice. Rather, my study seeks to illuminate a few specific learning conditions or aspects of learning design that learners themselves are identifying as points of ‘lift off’ in the context of developing agency.

Across the action competence research that I reviewed is a shared argument that EE needs to move beyond individual behaviour change as the perceived, desired outcome. This body of work makes clear that environmental action learning is about developing capacity in students to effect change on multiple levels. However there exists some fuzziness in terms of how these levels are interpreted. Schusler et al. (2009) describe environmental action dimensions as ‘personal, community, and environmental.’ They represent multiple goals of EE learning. In a different way, Chawla and Flanders Cushing (2007) talk about collective action or collective public change with the focus being on social political change as opposed to individual behaviour change. As I reviewed this particular body of literature, it seemed that educating for agency was about effecting change across all spheres for some and within specific spheres for others. For others still, agency seems less about effecting a certain kind of change and more about a child’s ability to work within “a context of opportunities and constraints” (Blanchet-Cohen, 2008, p. 270). This latter positioning of agency led me to review a body of work within

the EE literature that explored agency through critical, socio-ecological perspectives to which I now turn.

Critical Socio-Ecological Perspectives

Before discussing empirical research on student agency, let us situate the concept of *socio-ecological*. Central to this concept are relationships, human-to-human and human-to-earth (Menzies, 2014). Relationships and relational thinking, upon which any socio-ecological model (education, governance, or other) is predicated, serve as critical philosophical and epistemological cornerstones. Embedded within a socio-ecological model is a holistic understanding of the interconnectedness of socio-cultural and ecological well-being and the inextricable link between social and environmental change. Socio-ecological change, in the context of this study, refers to the deep, systemic change towards social and environmental sustainability. Scholars' work on the concept of socio-ecological change draws from diverse theoretical positions and fields including (but not limited to): critical pedagogy; poststructural theory; systems theory; cultural studies; and feminist theory. Socio-ecological education is informed by critical pedagogy (McKenzie, 2004), particularly social justice education's take up of root causes of social issues and injustices related to gender, race, class, (dis)ability. Socio-ecological pedagogy is also informed by ecojustice philosophy's (Gadotti, 2009; Greenwood, 2009/2003; Kahn, 2008) use of an ecological/ relational lens to challenge or deepen the limiting humanistic ontology that is central to critical pedagogy (Bowers, 2009/2002). Furthermore, systems thinking informs socio-ecological pedagogy insofar as supporting students in exploring how and why societal systems (i.e., political, economic, institutional including education) work the way they do.

Within the above context(s) of what I have called critical socio-ecological perspectives, several EE scholars have explored the concept of student agency in relation to environmental

action learning. To begin with I reintroduce McKenzie's (2006) work and her notion of "contingent agency." Here, McKenzie uses a discourse analysis approach to examine three very different "portraits" of Canadian programs that have a social and ecological focus, including: 1) "a grade 12 global education class in a public school in a rural working class community of 5,000; 2) a grade 8-10 Montessori mini school within an urban public school; and 3) a non-profit, two-year International Baccalaureate school in a remote residential setting" (p. 203). McKenzie's findings suggest that issues of class, as well as "program characteristics" affect students' agency. In turn, she discusses how embracing an understanding of agency as a "matter of positioning within discourse" (i.e., contingent agency) may allow for greater opportunities for "resistance and change" (p. 220).

Similar to McKenzie's research, Barrett (2007) applies poststructural understandings of agency to her postdoctoral study that examined the motivations and practices of outdoor environmental education teachers from two different research sites. She concludes from her findings that teacher agency is "constrained by discourse and contradictory subjectivities" (p. 210). That is, the identified "rhetoric-reality gap" in EE research and pedagogy is less about the commonly identified barriers in research that limit practice (i.e., lack of resources, support, skills, etc.) and more about the privileging of "what gets to count as legitimate knowledge" (p. 219). Both McKenzie and Barrett's re/framing of agency as something that is always understood in relation to discourse leaves us asking ourselves whether educating for agency is in fact possible. Can teachers co-construct learning experiences with their students that engender agency—our collective capacity for effecting deep social, political, and environmental change? This ties back into the work of Blanchet-Cohen (2008) discussed in the above section in which she positioned agency as a process of moving back and forth between 'opportunities and constraints,' and like McKenzie (2006), towards 'resistance and change.'

Other work of Barrett's (i.e., Barrett et al., 2008) contributes to this area of critical socio-ecological research. Teacher and student identity and agency are examined in a case study of an action-oriented sustainability youth forum set in the context of a school-museum partnership. This research unpacks dominant notions of "teacher-student roles and relationships" (p. 20). Findings reveal that forum participants' experiences, both student and teacher, were impacted by these larger institutional "storylines about what it means to be a teacher and a student" (p. 19). Disrupting such narratives, the authors suggest, are essential for students and teachers to recognize their own capacity and to purposefully engage within action-oriented project learning experiences.

Although an earlier study, Lousley's (1999) critical ethnographic study on school environmental clubs directly links to this discussion. In her study, Lousley examined four urban, multicultural secondary school environment clubs to explore how the culture of schooling and the intersectionalities of race, ethnicity, class, and gender inform approaches to environmental clubs in schools. The author argues that is the logic of a "liberal-humanist community service ethic and pedagogy" that dominates environmental clubs efforts in schools (p. 296). This logic is well supported, as the author rightfully notes, by the large body of research that identifies empowerment as a key strategy in cultivating responsible environmental behaviour (Hungerford & Volk, 1990). According to the author, the "depolitical" and "decontextualized" approach to empowerment through the "lifestyle environmentalism" taken up widely in school environmental clubs does nothing to address, let alone change, the "social, economic, or ecological status quo" (p. 300).

The studies discussed above are part of a larger body of research that has applied a critical socio-ecological lens to examining action and change-oriented EE pedagogy. I would include Greenwood's (2009/2003) work on "critical pedagogy of place" and Bowers'

(2009/2002) and Kahn's (2008) research on ecojustice and ecopedagogy as further examples of this body of work. I am not situating my research within this literature. However, it was a necessary area of study to review for several reasons. First, whether it is through poststructural, feminist, cultural studies, or other critical socio-ecological frameworks, this collective body of work has been instrumental in shifting the conversation in EE discourse over the past 15 years, at least in a Canadian and North American context. It has made environmental educators and educational researchers (more) conscious of the contradictions and the possible "incompatibility in trying to educate for a different environmental situation" within the current education system (Blenkinsop & Egan, 2009, p. 85). Second, this area of work, particularly the studies I chose to discuss, have informed my study by deepening my understanding and positioning of the concept of agency. The third reason requires a more detailed discussion to which I now turn.

In not directly taking up structural issues and the related domains of marginalization as part of my theoretical framework through which to explore student agency I am mindful that my research risks being seen as uncritical. For me, my ecological spin on relationality as discussed in the opening chapter encouraged me to explore the learning conditions that a particular group of youth identify as formative in developing their perceived capacity to effect broader social change. Rather than focusing on structural or individual constraints, I was more interested in gaining a better understanding of how these youth were organizing themselves within institutional factors such as schooling or community sites (i.e., local NGO's) with respects to learning. In viewing sustainable communities as the end goal of educating for agency, I wanted to examine the kinds of learning experiences and the underlying conditions of learning that these youth identified (and/or are seeking) as formative in the development of their agency towards effecting change. The value, in turn, lies in how these identified conditions might be used to better support teachers in organizing and co-creating such learning conditions more widely in the

future. With these points made, there exists one other body of EE research—social learning—that I want to briefly explore before turning to the civics education literature that focuses on student agency and active citizenship.

Social Learning

My understanding of social learning is evolving as I write this thesis. As a teacher, I have been inspired by the writing of socio-ecological systems theorists, in particular those scholars whose work focuses on learning models in the context of “ecological literacy” (Orr, 1992; Stone & Barlow, 2005). However, the term ‘social learning’ as an area of research is something that I have just recently come across through Wals’ (2007) publication by that name. To define social learning I borrow the words of Fritjof Capra as they appear in the foreword of Wals’ book:

... purposeful learning in communities aimed at creating a world that is more sustainable than the one currently in prospect. This learning is called social learning to emphasize the importance of relationships, collaborative learning, and the roles of diversity and flexibility in responding to challenges and disturbances. (p. 15)

Working within this definition of social learning in the context of sustainability, there is a clear resonance with the motivation, rationale, research questions, approach, and aim of my study. The centrality of relationships in social learning is explicit. Agency is, I suggest, also central and understood as relational. As we work to create a “learning culture” and conditions that move us together—people, organizations, and communities—towards sustainability, our agency lies in our recognition that we, including our decisions and actions, are always in relation to all the moving parts.

In reviewing some of the social learning literature in the context of sustainability, there are two particular pieces of research—one theoretical and one empirical—that I am grouping

under the umbrella of this body of work for the purposes of this limited discussion. Tidball and Krasny's (2010/2011) work examines urban EE and does so through a 'civic ecology education' framework. Their approach is to view human actions as a *positive* force contributing to community and ecological resiliency and well-being. In this context, urban EE (i.e., streamside restoration project) is understood and practiced as a learning experience that interacts with "processes and institutions" in the surrounding environment (2010, p. 3). Outcomes, in turn, are measured on multiple levels—individual, community, and environmental/ecosystem. Civic ecology education, as the authors suggest, offers EE an alternative framework from those more typically found in the literature with a focus on individual environmental behaviours. Within this latter grouping, EE outcomes would be measured through individual characteristics (i.e., personal actions, motivation, engagement, pro-environmental attitudes, service, etc.). Whereas with a civic ecology education approach, the relational and positive impacts of students engagement in environmental learning experiences with the community and the more-than-human ecology are what become the focus. Less developed however, are the conditions for which "relationships, collaborative learning, and the roles of diversity and flexibility" are created in the civic ecology learning experiences (Capra, 2007, p. 9).

The conceptual framework put forth in this thesis might serve as a useful tool to help bridge Tiball and Krasny's (2011) civic ecology education framework, based on an "ecology of environmental education," with current EE practice in schools (p. 1). In illuminating three different kinds of environmental action learning in the context of student agency, my framework supports teachers and school administrators to examine where our practice is at and where we are going. It helps practitioners reflect on whether our current learning design efforts are more focused on developing agency within individualistic characteristics or whether our efforts are taking into consideration, and working to foster, notions of agency and change on broader

collective, community, and ecological levels. This point will be fully discussed in the next chapter where I present my conceptual framework.

Separate but noteworthy to this brief discussion on social learning in the context of sustainability is the recent doctoral work of Nick Stanger. In his research on (trans)formative childhood and adolescent places, Stanger (2013) considers how experiences in such places “act as catalysts of community, ecological, and civic environmental engagement” (p. 9). In the vein of SLE research, Stanger sets out to understand how experiences within special childhood places (Sobel, 2004) impact or shape future engagement on multiple levels. Although of interest, his findings are less relevant to this study as I am not inquiring about significant childhood experiences or the concept of place. That said, a couple youth participants did share how time spent in nature as a child—“exploring favourite places”—inspired their current eco-civic engagement. Rather however, it is Stanger’s approach to research that serves as an exciting model of social learning. Stanger uses a participatory action research approach with four central participants. He then extends his participatory approach through his highly creative efforts to make his research an interactional on-line experience with the public at large (visit www.transformativeplaces.com). As Paul Hart, in Wals (2007) book on social learning points out, “if the social quality of our learning (i.e., action research) has been neglected, it is because we have failed to conceptualize how to explore active participation, whether in teacher/student activities in schools or teacher/researcher encounters” (p. 323). Stanger’s work provides us with an exciting model of purposeful active participation in educational research. Individual, community, and ecological impacts are considered in his research questions and in his approach. Scholarly work such as Stanger’s fuels the recent popularization of social learning research in the context of sustainability.

In my review of the EE literature, focusing on four specific bodies of research—SLE, action competence, critical socio-ecological perspectives, and social learning—I am foremost left with a feeling that this is a truly exciting time for the field of EE. A strong theoretical base exists that recognizes EE as no longer being about the engagement of youth in ‘fixing’ environmental problems. Rather, it is about the “mindful participation” of all of us (not just students) in new ways of thinking, doing, and being (Davis, 2004, p. 176). With this point made, it is research that ‘mindfully’ experiments with learning processes, including design and conditions, which support this “quantum” transformation that is most needed (Selby, 2007, p. 174). For EE-oriented teachers, teacher educators, administrators, or scholars, we need to develop a better understanding of learning processes that will get us moving towards our desired goals around the building of sustainable communities. Within this context, cultivating agency (in all of us) is about developing capacity for both individual and collective action. Such an aim, suggests a foreshadowing of EE’s transition, as others have noted, towards “a more democratic paradigm” (Schusler et al., 2009, p. 124). Certainly, this now popular field of social learning in an EE context offers much promise. Social learning-oriented or otherwise, more research that explores the tangling nexus of multiple fields, EE and civics being two, around the conceptual notions of sustainability and citizenship is needed.

This study offers an analysis of insights shared by young eco-civic leaders on a few learning conditions for teachers, teacher educators, and administrators, as well as scholars, to consider. These findings serve as a small contributive piece to this ongoing collective and important dialogue. As this emerging work in EE continues, other related work within the new field of Action Civics offers a cross-pollinating pull. Building on Westheimer and Kahne’s (2004) social justice-oriented modes of democratic citizenship, Action Civics explores learning approaches through a ‘theory of change’ framework that will be discussed in the next section.

Action Civics coupled with the bodies of EE work discussed in this chapter thus far, as well as other recent research based on youth activism (Kennelly, 2011), youth social change culture in Canada (Clarke & Dougherty, 2010; Ho, 2013), and critical youth studies (Ibrahim & Steinberg, 2014), together affirm that much is shifting in the theoretical landscapes as to student agency and action-oriented learning. I now turn to the civics literature.

Theoretical Orientation of Civics Education

The general field of citizenship education, at least in a Canadian/North American context, has been traditionally focused on “civic knowledge, skills and dispositions of young people” (Sears & Hughes, 2006, p. 13). Civics education and youth civic engagement have long, and widely, been interpreted, implemented, and measured in schooling as civic knowledge in the form of such things as mock student votes, community service, and/or extra-curricular volunteering activities (see CIRCLE, 2003). Student voting and developing ‘civic knowledge’ (i.e., how governments work) remain central pieces to most civics education-based organizations. As an example, CIVIX is a national (Canadian), charitable, and education-based organization whose mandate is to “build students into citizens.” They offer four core programming deliverables including: Student Vote; Student Budget Consultation; Rep Day; and Democracy Bootcamp.¹² The important work being done by CIVIX focuses specifically on developing youth’s understanding of governance structures, political processes, and central agencies of power within society. However, as Sears & Hughes (2006) and other civic education researchers advocate, there is a need to educate youth beyond a general understanding of political processes and civic identity as a future voter and an all round ‘good citizen.’ These authors call for focused attention in Canada to better delineate citizenship education from character education—developing “good citizens rather than good persons” (p. 13). This is a

¹² See www.civix.ca for program descriptions.

critical step when exploring the development of student agency. We need to develop the skills and knowledge in students to engage them in simultaneous and sustained acts of individual and collective action (i.e., active civic participation in social and political action projects and not just mock votes).

This discussion is deepened by examining the new ‘citizenship education framework’ (see Figure 2 below) within the recently revised (2013) *Ontario Ministry of Education’s Social Studies, History, and Geography Curriculum (Grades 1-8)*.¹³ Four main elements of citizenship education are identified in this framework including: 1) Identity—“a sense of personal identity as a member of various communities;” 2) Attributes—“character traits, values, habits of mind;” 3) Structures—“power and systems within societies;” and 4) Active Participation—“work for the common good in local, national, and global communities.” In relation to this framework, the arguments being made in civics literature by researchers such as Sears & Hughes as to what traditionally constitutes civic education, and what is modeled by organizations such as CIVIX, align with the first three elements listed above—civic identity, attributes, and structures. As theory, policy, and practice work to inform one another, it is encouraging to see the incorporation of the fourth component—active participation—in this citizenship education framework as part of the new Ontario curriculum. What is being advocated for and recommended in civic education literature over the past decade is clearly informing recent education policy with regards to curricula as demonstrated by Figure 2 below.

¹³ See <http://www.edu.gov.on.ca/eng/curriculum/elementary/sstudies18curr.pdf>

Figure 2: Citizenship Education Framework



Note: Above framework is taken directly with permission from the Ontario Ministry of Education's Social Studies, History, and Geography Revised (2013) Curriculum Document (Grades 1-8). Retrieved 12 May 2014, from (see page 10)

<http://www.edu.gov.on.ca/eng/curriculum/elementary/sshg18curr2013.pdf>

However, similar to the field of EE, it is in the pedagogical translation of the “active participation” element of this framework where ambiguity exists. Although the corresponding recommendations outlined in Figure 2 above appropriately suggest that students “build positive relationships with diverse individuals and groups” and “participate in their community” as examples, significant gaps exist as to the learning processes or conditions necessary that support and lead to active civic participation. Similar to the field of EE, more civics research is needed

on learning processes and age-appropriate strategies that support active civic participation—on individual and collective levels— aimed at social and political transformation. With this point made, there exists some clear overlap with respect to identified trends and gaps in these two fields, particularly in the context of educating for student agency.

Situating the Concept of Student Agency in Civics Education Research

Civics education literature has traditionally used the term(s) “efficacy” or “self-efficacy” when exploring notions of student engagement towards political and social change (Gimpel & Pearson-Merkowitz, 2009; Kerr & Cleaver, 2009). Kahne and Westheimer (2006) define efficacy as one’s “confidence that [she] can make a difference” (p. 289). In their two-and-a-half year study of 10 nationally (American) recognized programs that engaged youth in community-based experiences aimed at developing democratic values, these authors concluded from their findings that “efficacious community experiences” (i.e., service learning activities) do not necessarily prepare youth to be democratic citizens (p. 289). From this study, Westheimer and Kahne put forth a framework for ‘three kinds of citizens’ distinguishing a ‘personally responsible citizen’ from a ‘participatory citizen’ from a ‘social justice-oriented citizen.’ This delineation of citizens speaks directly to this study’s discussion on educating for student agency in the context of EE. The above authors’ work moves beyond a focus on efficacy to include the development of a critical understanding among students of how to effect systemic change on social injustices. For Westheimer (2008), democratic citizenship – the goal of democratic education—involves a critical capacity to understand, question, and ultimately act on structural root causes of common social problems (p. 9).

Student agency as perceived in this study builds on the above authors’ work by broadening the lens beyond human society to explore the development of students’ capacity to effect change on social/community *and ecological* levels. In applying an EE lens to Westheimer

and Kahne’s work, I also question whether their focus on a social justice-oriented citizen is about ‘fixing’ social problems, similar to more traditional EE discourse focused on ‘fixing’ environmental problems. That said, Westheimer and Kahne’s work was groundbreaking in shifting the civic education landscape by disrupting the traditional modes of community service, volunteerism, and civic knowledge. In part, it has contributed to the recent emergence (2010) of a new community of researchers and practitioners of civics education in the United States – the National Action Civics Collaborative (NACC).

The work of NACC aims to teach students to “do civics” rather than “about civics” (Gingold, 2013, p. 1), the more traditional approach to civics education. The collective goal of the six American-based organizations that comprise the NACC¹⁴ is to “close the civic engagement gap by implementing Action Civics” which they go on to describe as “student-centered, project-based, high-quality civics education” (p. 3). Although ‘closing the civic engagement gap’ by engaging the ‘traditionally disengaged,’ is a critically important objective, it is not central to this study. However, the pedagogical lens of the emerging field, Action Civics, and the guiding principle of developing ‘youth agency’ as defined by NACC – youth capacity for “action, authority, and leadership” (Gingold, 2013, p. 6)— speaks directly to my study. Although in its infancy as a field, and too early for any empirical studies of which to review on the outcomes of an action civics approach from multiple perspectives (i.e., student, teacher, etc.), this emergent work in civics education speaks to an identified gap being addressed in this study insofar as exploring learning processes that support the development of student agency. There exists value in taking a closer look at Action Civics’ approach to learning.

¹⁴ CIRCLE, Earth Force, Generation Citizen, Mikva Challenge, The University Community Collaborative, Youth on Board (Gingold, 2013)

Action Civics and the ‘Theory of Change’

Action civics researchers have identified a clear call from within and beyond the field for young people to be empowered with the “necessary attitudes, skills, and knowledge to be active and responsible citizens” (Gingold, 2013, p. 3; Campbell, Levinson & Hess, 2012; Youniss, 2011). The NACC and Action Civics as a field, works to “engage students in a multi-step process to identify key issues in their own communities, conduct research, strategize, and take action, all while teaching the necessary political and civic knowledge to be effective” (Gingold, 2013, p. 1). Action Civics can take many forms as Gingold goes on to note in her recent report titled, *Building an Evidence-Based Practice of Action Civics*, in which four guiding principles are offered, including: “1) Action, especially collective action; 2) Youth voice, including experiences, knowledge, concerns, and opinions; 3) Youth agency, including action, authority, and leadership; and 4) Reflection, especially as it enriches the process (p. 6).”¹⁵ Action Civics proponents have collectively created a *Theory of Change* framework (see Appendix F). This emergent model was informed by several youth-oriented fields including: positive youth development (PYD), social and emotional learning (SEL), service learning, youth organizing, and community youth development (CYD). Action Civics moves beyond character development in PYD and SEL, and ‘doing good’ as individual citizens as interpreted in the field of service learning. It looks to “developing youth civic leaders and affecting the current political landscape” where youth feel “their actions contribute to [addressing and solving] real world structural problems” (Gingold, 2013, p. 6).

Action Civics focuses on learning processes that weave together youth leadership development, “traditional” civic education (i.e., knowledge-building of government structures, political processes, historical documents, and general civic awareness), and “guided experiential

¹⁵ These four guiding principles were outlined by the NACC in 2013 as part of the *Action Civics Declaration*

civic education” (Levinson, 2012, p. 57). The NACC uses the *Theory of Change* framework to shape, both philosophically and pedagogically, the Action Civics process. This theory consists of adults guiding and scaffolding student learning opportunities through “community mapping, issue analysis, research, constituency building, strategizing and taking action” (Gingold, 2013, p. 9). It represents an applied, learning by doing process with a focus on collective action. In many ways, it builds upon and offers a pedagogical response to Westheimer and Kahne’s earlier work on ‘three kinds of citizens.’ Although Action Civics is not without its critics, what it does do, perhaps most importantly of all, is to recognize learning as a process of creating space for “open-ended interactions” – something that Peter Levine, one of the founding academics of Action Civics, calls “scarce” in today’s world.¹⁶

Described in this way, the Action Civics approach aligns with EE’s longstanding use of an experiential learning model and to some extent, its more recent use of an environmental inquiry-learning model (see *Natural Curiosity* as an example). Furthermore, based on its nesting of student learning experiences in activities that have direct, positive impacts at a community level, there are parallels between Action Civics learning model and Tidball and Krasny’s (2010) ‘civic ecology education’ framework. However, unlike current EE practice in schools, Action Civics explicitly focuses on teaching students “the skills necessary to make change” (Gingold, p. 8) and clearly articulates what is meant by the word *change* – which in the case of Action Civics is largely political and social change aimed at building a stronger democracy. The strength that an Action Civics model offers EE practice is its focus on learning processes that are designed to support and develop capacity in youth to make change in the public realm as opposed to the private. It is this aspect of educating for agency—learning that leads to action and change at

¹⁶ These quotes were referenced from Peter Levine’s blog for civic renewal site. Retrieved on April 28, 2015 at <http://peterlevine.ws/?p=7974>

collective and ecological levels— wherein lies the problematic gap when looking at EE theory, policy, and current practice in Canadian schools, generally speaking. Action Civics pedagogy has considerations that might help to nudge EE practice in schooling beyond a focus on individual behavioral and attitudinal change (i.e., environmentally responsible stewarding).

In this chapter, I have reviewed several bodies of work within the EE and civics literature that focus on action-oriented learning—SLE, action-competence, critical socio-ecological perspectives, social learning in the context of sustainability, and Action Civics. One identified gap that this thesis takes up is that little research exists that works to bridge the strengths that each of the fields of EE and civics bring to conversations on educating for agency. To address this gap, I use aspects of these aforementioned bodies of research to construct an eco-civic action learning framework. I suggest that such a theoretical framework serves to bridge trends and research in EE around environmental action learning and active citizenship with the new field of Action Civics. Each of these fields, in varying ways, has shifted the research gaze towards exploring learning processes that support students to simultaneously participate in learning experiences that will lead to individual and collective change, be that social, political, or ecological.

An eco-civic action learning framework creates spaces of permission for more dialogue, pedagogical explorations, and action-based learning that embraces a broader spectrum of change around notions of sustainability and citizenship. This new position supports risk-taking in learning and enables students and teachers to co-participate in critically examining “lifestyles, power relationships, inequities” while at the same time to co-participate in problem solving, decision-making, and effecting change-oriented solutions (Wals & Jickling, 2009, p. 78). Such an approach to education, as Wals and Jickling go on to suggest, “calls for high levels of participation, attention to the quality of interaction, acceptance of uncertainty, pluralism, and

emergence” (p. 79). These properties are essential to a social justice and democratic-oriented citizen as proponents of Action Civics assert. At the same time, the above properties are “essential of sustainability” (p. 79) and inherent to social learning aimed at sustainability.

The above points may be perceived as a challenge or limitation of an eco-civic action learning framework for scholars in the field of civic education in which generational renewal around principles of (Western) democracy seemingly matter most. Civics is a field in which the environment has widely and traditionally been seen as a special interest issue peripheral to the larger agenda of political socialization (Stolle & Cruz, 2009; Westheimer, 2008; Youniss & Levine, 2009). Upfront however is the extent to which dialogic relations are viewed as a necessary vehicle to civic participation (CIRCLE, 2003;¹⁷ Hess, 2009). According to Hess (2009) learning must engage youth in *deliberative democracy* or “high-quality public talk” of controversial (political) issues and common problems (p. 62). In this light, civic educators are advocating for engagement in relational acts of meaning making and “open-ended interactions” around democratic life (Levine, 2012). It seems that the leap that is needed for an eco-civic action learning framework to work from a civics stance, is for scholars and practitioners within this field to extend their valuing of relationships and relational thinking to include an ecological, more-than-human, dimension.

Social change agents of today require an ecological ethos, a deep understanding of relationships, relational thinking, and the inextricable link between society and nature. EE’s recent trends around environmental action learning can be strengthened by advancements made in the field of civics through critical examinations of the development of ‘democratic citizens,’ as opposed to ‘good citizens’ (Sears & Hughes, 2006; Westheimer & Kahne, 2004) and by

¹⁷ Full author citation is Carnegie Corporation of New York and Centre for Information and Research on Civic Learning and Engagement (CIRCLE), 2003.

taking note of the learning design methods being explored within the new field of Action Civics. By moving beyond a focus on the creation of ‘good stewards’ in EE practice in schools towards the development of ‘active citizens’ as termed in recent EE policy, we can begin to examine more deeply the learning processes and conditions salient to developing student capacity to participate in effecting change beyond their personal lives. The interplay between these two fields is strengthened, I argue, through the use of an eco-civic action learning framework.

This research and the work that is being done in the areas of study outlined in this review contribute to what Lundholm, Hopwood, and Rickinson (2013) have pointed out as a new and necessary area of EE research. The above authors suggest that EE research has traditionally focused on two main approaches, including: 1) “researching learners... investigating the environmental characteristics of young people” (i.e., knowledge, attitudes, and/or behaviours); and 2) “measuring outcomes... and the extent to which they [EE programs] bring about changes in students’ environmental knowledge, attitudes, and/or behaviours” (p. 244).¹⁸ The authors go on to acknowledge that there exists an emerging third approach in researching EE, that of “exploring processes... (and) how learners themselves make sense of EE” (p. 244). As EE and civics researchers continue to shift their gaze to exploring and better understanding learning processes that support student agency and action/change-oriented education, this ‘third’ and emerging approach to research, of which these authors speak, represents an exciting and critically important area of work.

Much of the research to be done in this area is *less* about creating or capturing resistance narratives or counter-cultures (typical of critical theory and critical youth studies). Rather, it is *more* about “generating visions of alternatives” of learning which often already exist in “the practices of our social movements and our activist groups” (Whitmore, Wilson & Calhoun,

¹⁸ Note the focus on individual knowledge, attitudes, and/or behaviours.

2011, pp. 11-12). Future research in this area needs to embrace the same properties of “*uncertainty, pluralism, and emergence*” being advocated for by scholars in the fields of EE and civics who are concerned with education that is focused largely on citizenship, sustainability, and socio-ecological change (see p. 48). More research also needs to include students and practitioners as co-theorizers through more participatory action and appreciative inquiry-based research. Certainly, the emerging work being done by the Research in Participatory Education Network (RIPEN) on participatory approaches to education (Reid et al., 2008) and other related work (Ballard & Belsky, 2010) in the context of social learning and socio-ecological systems theory serves as an important area of research upon which to build.

In conclusion, this thesis is not putting forth a conceptualization of an eco-civic action learning framework. Rather, it builds a theoretical argument for the need of one. Such a framework will emerge through a collaborative effort with scholars from both the fields of EE and civics to consider the strengths and synergies between existing and emerging research models on learning processes, approaches, conditions, and principles aimed at educating for agency and change. As this thesis suggests, two possible research models to consider include: Action Civics’ Theory of Change (Gingold, 2013) and civic ecology education (Tidball & Krasny, 2010). What this thesis does put forth however, is a conceptual framework on ‘three kinds of environmental action learning’ in the context of student agency. I view this framework as an entry point and contributive piece towards a much broader, overarching conceptualization of an eco-civic action learning framework. The aim of the framework being put forth in this study is to serve as a tool to support EE teachers, administrators, and teacher educators to engage in deeper discussions on the argued gap or lag between EE theory, policy, and current practice in schools. It is a tool to help us reflect pedagogically on what kind of action and change we are currently teaching for and what kind of learning processes will support us in educating for

broader change. Furthermore, beyond serving as a conceptual tool, this framework also served as an analytical tool for my research findings and subsequent discussion. Chapter 3, to which I now turn, outlines my proposed framework.

CONCEPTUAL FRAMEWORK: Chapter Three

An understanding of citizenship as participation puts less emphasis on rights as entitlements to be bestowed by a nation state... and more on...the process of citizen action, or human agency, itself.

(John Gaventa, *Global Citizen Action*)

In this chapter, I begin by highlighting an established framework from the civics literature – Westheimer and Kahne’s (2004) ‘Kinds of Citizens’— that has been taken up widely by both scholars and teachers who are concerned with engaging youth in democratic and social change-oriented learning (Lundholm, 2011; Schusler et al., 2009). I then build on Westheimer and Kahne’s work to propose a new conceptual framework in the context of environmental action learning aimed at student agency.

An Established Framework

Westheimer and Kahne argue that much of what passes as civics education in schools today has more to do with “voluntarism, charity, and obedience than with democracy” (2008, p. 8). Citizens of good character who are engaged in personally responsible acts of community service (the bulk of existing civics education) are not representative of an interpretation of democracy as “thinking critically about important social assumptions” (p. 6). Nor is it enough to participate in leadership efforts to organize community initiatives. For Westheimer and Kahne, democratic citizenship requires a relational understanding of how systems and social movements work and a critical capacity to understand, question, and ultimately act on structural root causes of common social problems (p. 9). In distinguishing *three kinds of citizens*—1) personally responsible; 2) participatory; and 3) social justice-oriented (p. 9)— these researchers offer a simple yet effective (and non-hierarchical) framework that highlights the spectrum of how civic engagement is interpreted in the field of civics education (see Appendix G). *A social justice-*

oriented citizen, according to Westheimer and Kahne, not only “thinks critically about important social assumptions” but more so develops strategies for utilizing her agency to change structures, systems, and “ways of doing” that impede well-being—socially, politically, and economically (p. 9).

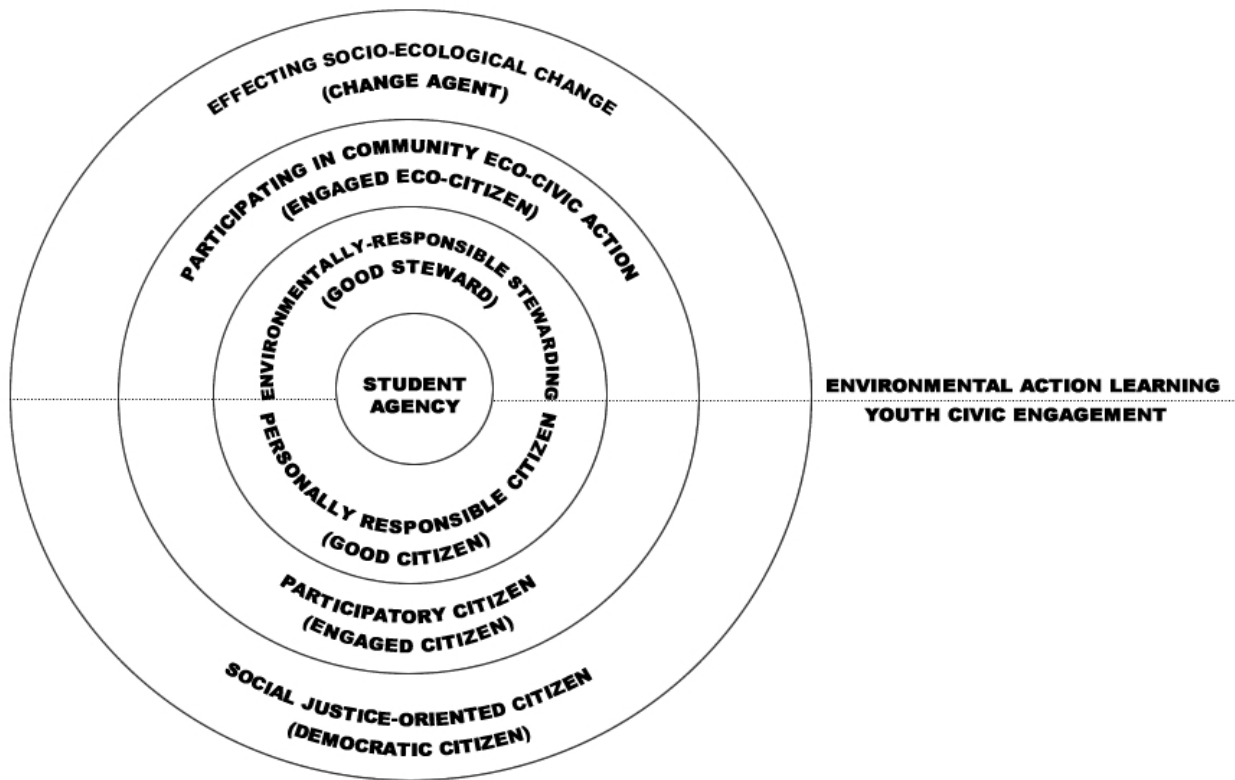
In shifting from ‘personally responsible’ to ‘participatory’ to ‘social justice-oriented’ citizens, the focus moves from individual behaviour (i.e. personally responsible acts of citizenship) to the development of capacity in students to work with others to effect social change (i.e., collective action through collaboration). Westheimer and Kahne’s framework has been widely taken up by citizenship scholars, as well as teacher education professors across North America as it offers a simple model that sparks critical dialogue and reflection. Westheimer and Kahne’s advocacy for applying a social-justice oriented lens to civic education has informed, at least in part, the emerging field of Action Civics and their subsequent *Theory of Change* framework highlighted in Chapter 2. It has served to move conversations in the field, shifting the landscape of civic education. The more traditional modes of civic learning – student votes, community service, volunteerism, civic knowledge—have been extended by an action-oriented approach to civics that engages youth as participants in community-based learning experiences that value relationships, democracy, and civic renewal towards change. In turn, I wonder how a reconstitution of Westheimer and Kahne’s framework—one that takes up an eco-civic orientation—might serve as a useful tool to help address similar trends and identified gaps in current EE practice.

An Emerging Framework

In building upon Westheimer and Kahne’s work on youth democratic engagement, my framework explores environmental action learning in the context of student agency. As Figure 3 demonstrates I propose three kinds of learning, including: 1) environmentally responsible

stewarding; 2) participating in community eco-civic action; and 3) effecting socio-ecological change. This framework served as a conceptual and analytical tool for this study (see Appendix H for tabular format).

Figure 3: Three Kinds of Environmental Action Learning



There exists strong theoretical correlation between the two hemispheres in the above model. Westheimer and Kahne’s framework addresses the spectrum of how civic education has been widely interpreted (i.e., moving outward from the more traditional approaches focusing on the development of civic knowledge and ‘good citizens’ towards the development of ‘democratic citizens’). Likewise, my framework on *three kinds of environmental action learning* addresses a similar spectrum. It moves outward from how EE is currently and widely practiced in classrooms and schools (i.e., the development of

environmentally responsible stewards) and towards how the notion of agency is being taken up in recent EE policy (i.e., the development of ‘change agents’) and in various bodies of EE research that is exploring different approaches to EE practice that supports change-oriented learning (McKenzie, 2006; Reid et al., 2008; Wals, 2007).

Beyond the strong theoretical correlation between these fields with regards to the recent trends as noted above, I chose a circular design as I wanted to place these two fields in direct relationship with one another. I wanted to depict them as parts of a larger whole—an eco-civic orientation. At the core of this relational positioning is the emergence and critical importance of the concept of student agency. The dotted line across the equator symbolizes the current distinction between these two fields. Its porosity however, represents the emerging intersection and borrowing between these fields as notions of sustainability and citizenship increasingly converge, and with it the potential pedagogical implications of such a convergence. Furthermore, citizenship, sustainability, and socio-ecological change are inextricably linked elements of this conceptual model. As a student moves outwards in the spectrum they are developing and applying capacities as young citizens that are related to effecting socio-ecological change aimed at both sustainability *and* a strengthened democracy. This interdependent model, predicated by relational thinking, expands and deepens Westheimer and Kahne’s more linear model. With intention, the focus has shifted away from perceiving students as citizens as nouns (i.e. a certain kind of citizen) as depicted in Westheimer and Kahne’s model. My framework places the focus on students’ actions (i.e., verbs such as *stewarding*, *participating*, *effecting*). This shift reflects the recent trend of action learning (i.e., the actual ‘doing of’) in these respective two fields. Such a shift also speaks to the more action-oriented thinking inherent to youth as exemplified in the ecological handprint example in the Introduction Chapter.

Of additional importance to this conceptual framework, and similar to Westheimer and Kahne, I do not interpret these different kinds of student agency in the context of environmental action learning to be mutually exclusive. In other words, it is unlikely that a youth who is effecting socio-ecological change on a broader systemic level, stops participating in local eco-civic action in her community and/or stops engaging in personal acts of *environmentally responsible stewarding*. It is possible for a youth to engage in each of these modes of student agency at the same time. For example, a student may recycle and compost daily at home and school, as well as participate in organizing an intergenerational community bio-blitz at a local wetland. There is fluid movement across this framework. In this sense, it is a non-hierarchical model. One form of learning or mode of agency does not replace another mode as one moves outwards across the spectrum. That said, what this model is intended to do is to illuminate the current and long-standing value we as a field have placed on the first kind of learning depicted—environmentally responsible stewarding—and the expansion in EE practice that needs to happen if we are looking for education to serve as a catalyst to broader social and ecological change.

Lastly, this model is most easily perceived as a two-dimensional framework highlighting the interdependent relationship between recent trends in EE and civics education around student agency. However, it can also be interpreted three dimensionally. A third axis exists that moves outwards from the centre, constructing a continuum in which the locus of action moves from the individual to the collective and the locus of change moves from the personal, to the community, and outwards still to the ecological. It is the third dimension to this framework that illuminates the centrality of relationships and collaborative learning in my orientation towards student agency in this study. In returning to Capra's (2007) definition of social learning (see p. 37), the importance of relationships, collaborative

learning and flexibility increases as one moves outwards across the framework. The strength and depth of relationships impacts the degree of change being effected at each level. More “open-ended interactions” and an emergent approach to learning are embraced as one, once again, moves outwards across the framework (Levine, 2012).

Conceptual Framework in Relation to Research Questions

This study aims to utilize the participants perspectives to reflexively examine this emerging conceptual framework and its theoretical underpinnings. Students interpretations of their own sense of student agency, including their own perceived identity and capacity as a young eco-civic leader, as well as the formative learning experiences that they identify as having developed their sense of agency, are analyzed using this framework as a tool. This research hopes to contribute to a collective deepening of our understanding of the concept of student agency in the context of an eco-civic action learning framework. In doing so, it serves to excite possibilities (and complexities) in fostering knowledge mobilization between the fields of EE and civics education. Furthermore, this study and proposed framework intend to contribute to the identified *lack* of empirical research in EE literature on change (Kool, 2012), specifically studies, it seems, on learning aimed at collective action towards social and ecological change.

Three central questions guide my research as stated in the Introduction Chapter. To recap, they include: (1) How do youth, recognized as eco-civic leaders, interpret their own sense of agency? (2) What are the kinds of learning experiences and/or conditions of learning that these youth identify as having developed their sense of agency—their capacity to make change? (3) What do these youth’s perspectives reveal about the relationship between school experiences in environmental action learning as currently perceived in the field and their capacity to make change in society? In seeking to gain a better understanding of the developmental process of student agency from a youth perspective, I wanted to know under what learning conditions these

youth are getting a sense of ‘lift off,’ so to speak. Likewise, how do these youth perceive themselves to be engaging in change—where—and what kind of change? The research along with my experience over the past 15 years as an environmental educator has led me to the conclusion that we seem systemically ‘stuck’ on an approach to environmental action learning that is focused on learning about (environmental) issues through knowledge-building, awareness-raising, and opportunities to participate as ‘good stewards’ & ‘good citizens.’ Less clear is a deeper understanding of an approach to learning that focuses on processes aimed at collective action towards socio-ecological change and how youth can best co-participate in these processes, whatever they might be.

Conceptual Framework in Relation to Research Participants

I chose to focus on the youth perspective not only because my collective experiences as an educator have taught me firsthand the currency of youth – their energy, innovative thinking, and inherent ability to see more relationally—but furthermore, the perspectives of the 34 youth participants provided an important platform from which to shift the pedagogical conversation. I was interested in what stories these youth might tell that would enable us as EE teachers as well as school administrators to see environmental action learning differently, to become ‘unstuck.’ I wondered whether or not, the ideas and experiences that these 34 youth identified in terms of learning conditions that they felt supported their development of student agency could contribute to a deepening of EE praxis. As a leading systems thinker, Margaret Wheatley (2005), fittingly points out:

Living systems contain their own solutions... Somewhere in the system are people already practicing a solution that others think is impossible. Or they possess information that could help many others. Or they defy stereotypes and have the very capabilities we need. (p. 106)

My assumption was that the youth in this study (and beyond) would hold some of these solutions we need as a field. And they do.

METHODOLOGY:

Chapter Four

We are in between stories. The old story sustained us for a long time—it shaped our emotional attitudes, it provided us with life’s purpose, it energized our actions, it consecrated suffering, it guided education. We awoke in the morning and knew who we were, we could answer the questions of our children. Everything was taken care of because the story was there. Now the old story is not functioning. And we have not yet learned a new one.

(Joseph Campbell, *The Power of Myth*)

My research study looked at the stories, ideas, and perceptions shared by recognized young eco-civic leaders in Canada. As Wheatley points out in the quotation at the end of Chapter 3, I asked what ‘solutions’ are youth already practicing or, at the very least, what ‘information’ might they possess that can help us rethink and/or redesign EE praxis around environmental action learning in schools? Furthermore, do they offer insights that may help us as researchers better bridge and cross-pollinate the paralleling trends emerging in recent EE and civic education literature on student agency?

Research Design

Early on in the research proposal stage of my doctoral work, I considered different forms of qualitative approaches through which to conduct this study—phenomenology, critical auto/ethnography, participatory action research, and narrative inquiry. Initially, it was Van Manen’s (1990) work on ‘*researching lived experiences*’ through a hermeneutic phenomenology that was of particular interest to me, largely because of his relational ontological assumptions as both educator and researcher. The value that Van Manen places on the pedagogic voice in educational research spoke to my thoughts around the role and responsibility of an educational researcher. He suggests that “we are not simply being pedagogues here and researchers there—we are researchers oriented to the world in a

pedagogic way” (p. 151). Moreover, according to Van Manen, it requires researchers having an “awareness of the relation between content and form, speaking and acting, text and textuality” (p.151). It is clear that relational thinking is central to Van Manen’s understanding of pedagogy. He goes on to state that “pedagogy is neither one nor the other,” in referring to theory and application, as well as intention and action. He suggests, “pedagogy constantly and powerfully operates in between” (p. 146). What resonates with me about this aspect of Van Manen’s work is the poststructural notion of in-betweenness, an idea explored by several scholars including (but not limited to): Aoki’s (1986/2005) ‘bridging space;’ Bhabha’s (1990) ‘third space;’ Derrida’s (1993) ‘aporia;’ and Giroux’s (1992) ‘border pedagogy.’ I too identify with pedagogy as a third space of sorts. For me, teaching is about creating a space where questions and doubts are explored and where generative tensions play out. It is about being mindful of the web of relationships at play, including our relations with the more-than-human world.

Researching the lived experiences of the youth in my study through a phenomenological and relational approach informed by Van Manen’s work would have likely proved to be a good methodological fit for my study. However, I kept finding myself being pulled towards narrative research. Simply put, I learn through stories. I teach through stories. As a keynote speaker I rely on storytelling. Stories, both lived and told, have influenced my ways of knowing. I appreciate and have witnessed in my life the universal and transformative nature of stories. As acclaimed First Nation and Canadian author Thomas King (2003) states in his book, *The Truth About Stories: A Native Narrative*: “stories are wondrous things” (p. 9). It is the unique constellation of stories that we each have, shaping our respective lives that for me, is most wondrous. Therefore, I chose, in the

end, to design a general qualitative study that borrows certain methodological components of narrative inquiry (Clandinin, Pushor, & Orr, 2007).

Narrative Aspects and the Concept of Relationality

Methodologically, I felt a sense of home/place as I turned towards the foundational work of Clandinin & Connelly (2000/1995/1991) and the idea of narrative as relational inquiry. In terms of my dissertation, I was particularly drawn to their definition of narrative research as a methodology for “inquiring into storied experiences... on storied landscapes” (Clandinin & Murphy, 2007, p. 598). Through stories we can learn more about the macro and micro socio-cultural, institutional, and historical relations and context through the narratives that we are told or which we choose, knowingly or unknowingly, to tell. From this perspective, within the context of education and educational research, narrative offers a way methodologically to understand our experiences and to examine how our experiences are situated within, and shaped by, broader systemic forces of which we are part. Often focusing on the stories and experiences of teachers, the concept of relationality is central to the above authors’ prolific work in examining and reflecting on the relational complexities and “ontological commitments” (p. 598) of narrative inquiry as a research methodology.

My research engages in hearing the storied experiences of youth, who have been recognized as eco-civic leaders, as an effort to better understand learning conditions, processes, and/or spaces aimed at developing student agency. The stories that I gathered from the youth in the study provided me with a form of data—narratives—and my interpretation of their stories shared and the subsequent discussion of the emergent themes across their stories, served as a means of knowledge production. To this extent I orient my qualitative study with/in a narrative approach, as opposed to orienting it as a specific narrative inquiry study. Although I engaged in “relational ways with participants” in this

research, I did not negotiate with participants through “field, interim and final research texts... as part of the research journey” (Clandinin & Caine, 2012, p. 172). In not doing so, I did not fulfill, and recognizably so, all eight of the “design elements for consideration in narrative inquiry” as outlined by Clandinin, Pushor, and Orr (2007, p. 21).

Our “research relationships” (the youth and me) aligned more with the work of Cynthia Chambers (2004) and her practice of framing inquiry in an active, first person voice, a kind of “autobiographical inquiry” (p. 1). Although my study did not focus on my own life as the “site of inquiry,” it did focus on *research that matters to me*, and that arose from my “living practice” as an educator (p. 7). More importantly, it became evident throughout my study that this research also *mattered for* others, particularly the youth in this study. As one participant openly wrote: “Your research study is very inspiring. Youth can, and are, effecting systematic change but more needs to be done in our public education system to cultivate such capacity on a much broader scale. I hope it [this research] will have an impact on the future of education in Canada.” Together, the youth participants and I found, what Chambers (2004) refers to as, “a path with heart” (p. 7). The researcher-participant relationship in my thesis did not represent a collaborative process of “mutual storytelling and restorytelling” as characteristic of NI research. It did however model a genuine “valuing and confirmation of each other” (Connelly & Clandinin, 1990, p. 4). Drawing on Buber’s work from the opening chapter, there existed an ‘I-Thou’ relationship between myself and the participants. It was out of listening to their stories through which this research took shape, giving their stories the “authority and validity that the research story has long had” (p. 4).

In this discussion on the concept of relationality as an important methodological component of this study, I am mindful that we as researchers need to make explicit how our philosophical assumptions influence the “conduct of our inquiry” (Creswell, 2007, p. 15).

Social constructivist-oriented narrative researchers suggest that people “cannot be understood only as individuals...they are always in relation, always in a social context” (Clandinin & Connelly, 2000, p. 4). I would add that people are also “always in relation, always in a social *and ecological* context” (p. 4, my emphasis). Our intersubjective experiences are situated within a more-than-human ecology. Relationships represented an important methodological consideration in the researcher-participants’ valuing of one another and each others’ stories. However, it was the researcher-participants’ shared connection with the more-than-human world that also served to cultivate a relational bond that was “caring and [of] mutual intention” (Clandinin & Connelly, 2000, p. 4). Consequentially, the researcher-participant relationship felt like a “collaborative process” insofar that we each shared stories in this study as a mode of engagement towards a commonly desired end goal— to support and enhance learning experiences aimed at socio-ecological change (p. 4).

To build on the above point, I turn to Hendry’s (2007) orientation of narrative inquiry. My study became a “site of communion,” a space where the youth participants and I became present to “our interconnections” (p. 496), and our own shared, storied experience around eco-civic engagement. This notion is reflected in the degree to which 10 of the 11 interviewees have stayed in touch with me over the past 15 months, from the time of interviews to final thesis submission. As one of the these youth recently wrote in an email, “I still remember our meeting like it was yesterday. It was such a pleasure talking to you! In my current job I feel like I have those types of conversations [like in our interview] with community partners, youth, and co-workers on a very regular basis.” Again, for those involved, this research mattered.

Like Hendry, I was mindful of the way narrative inquiry can/might use stories as reifications much in the tradition of positivist thinking. Simply put, I did not set out to capture “a” story or to fit the youth participants’ insights “neatly into ‘a’ plot” (Hendry, 2007, p. 490), a ‘plot’ that is often guided by the rooted metaphors of our established thinking. Rather, through a more relational view of narrative and my ecological orientation, I interpret the participants’ shared stories, not as a “collection of objects,” but rather as “networks of relationships” (p. 492). By listening closely to “how narratives are told and why” (p. 490) by the youth participants, I aimed to gain critical insights on the learning experiences that they perceived as formative in developing student agency. More specifically, I wanted to unpack these experiences and to know more carefully the learning conditions that these youth identify as important. In other words, I was less interested in knowing if it was a school project to organize a local bioblitz or a youth conference on environmental action that distilled a self-awareness of student agency; rather I was *more* interested in better understanding the learning conditions and pedagogical process of any identified experience. With my relational understanding of student agency, I was particularly interested in listening as to whether or not the participants spoke about: a) the role and/or their relationship with the teacher(s), mentor(s), or other community adult(s) that were facilitating, supporting, and/or co-participating in a particular identified learning experience; b) the relationship between school and community in terms of how the walls between became more permeable and/or the process by which bridges and/or partnerships were developed; and c) the development of particular skills and/or competencies related to a student’s capacity to make change.

Furthermore, I was interested in examining more carefully what relational lens(es) were being applied by the students, knowingly or unknowingly, to tell their stories. Similar to above, several reflexive questions guided my thinking with regards to examining what, if any, relational

lens(es) the youth participants were utilizing, such as: a) how might have their current environment or place (i.e., university campus, NGO, etc.) informed their shared insights; b) did the timing of our research interactions influence their responses (i.e., exam time, current community project immersion, or recent event participation, etc.); or c) whether or not the participant was currently working closely with a mentor or within a collaborative network? With these points of research methodology established, I turn to discussing how I used a modification of Tannen's (2008) '*three narrative types*' framework for data analysis.

Applying Tannen's Narrative Framework as an Analytical Tool

Tannen identifies '*three narrative types*' as a framework from which to interpret research data. Her proposed types include: 1) small-n narratives—“accounts of specific events or interactions;” 2) Big-N Narratives—“the themes speakers developed... in support of which they told the small-n narratives;” and 3) Master Narratives—“culture-wide ideologies shaping the Big-N Narratives” (p. 206). Typically with this approach, a large number of small-n narratives are grouped into a much smaller number of Big-N Narratives, which in turn, fit into an overarching Master Narrative. Tannen's narrative framework, one that is typically more suited for a categorical analysis approach rather than my more relational inquiry approach as outlined above (see Lieblich, Tuval-Mashiach & Zilber, 1998), was modified for this study. Rather than categorizing *events* or *interactions*, as Tannen suggests, in the context of 'small-n narratives,' I listened closely for insights on learning conditions as part of the learning experiences identified by participants as formative in the development of student agency. With regards to 'Big-N Narratives,' much like Tannen, I identified 'themes.'

However, unlike Tannen, I welcomed diversity (as opposed to seeking agreement) across and within the themes. I assumed that even in the presence of a (partially) shared identity amongst the participants (see next section), I would discover “multiple and divergent

interpretations” (Wheatley, 1999, p. 7). As for a ‘Master Narrative’ there was not one in a traditional narrative research sense. As opposed to trying to objectify ‘a’ ‘Master Narrative’ from the participants’ perceptions and experiences regarding student agency, I approached this research, as I do teaching and learning, as a highly relational, participatory, dynamic, and emergent process with real persons. My findings, in turn, transpired more as a web of relational insights and implications for EE teachers, policy-makers, and scholars to consider, as opposed to a neatly organized and presented central narrative. As a result, I had re/conceptualized Tannen’s framework through a more ecological orientation.

Research Participants and the Toyota Earth Day Scholarship Program

A total of 367 youth between the ages of 18 and 24 and who were either past recipients or finalists of the Toyota Earth Day Scholarship (hereafter TEDS) received an invitation to participate in this research study. Of the 367 invitees, 111 were TEDS recipients and 256¹⁹ were TEDS finalists. In 2002, Toyota Canada and the Toyota Canada Foundation, in partnership with Earth Day Canada, established TEDS to help support emerging young Canadian environmental leaders. TEDS “encourages and rewards graduating Canadian high school students who have distinguished themselves through environmental community service, extracurricular and volunteer activities, and academic excellence” with a \$5000 grant.²⁰ Each year the scholarship program recognizes 20 students, all of whom are entering their first year of postsecondary studies. Regional panels and an overall national panel comprised of community, business, and environmental leaders select the annual winners. Awards are granted in five geographic areas including: Atlantic Canada; Quebec; Ontario; Western Canada/Northwest Territories/Nunavut; and British

¹⁹ These numbers do not include the additional email invitations that bounced.

²⁰ To date, 140 students have been awarded with a total of \$700,000 in scholarships.

Columbia/Yukon. Each year a national winner is selected from the 20 regional winners.

Participant Suitability

The above sample of research participants was selected for both convenience and suitability reasons. From 2010-2013 I served as a national judge for TEDS. As a result, I had an already established rapport with the scholarship program staff and in turn, had both the support and access to this sampling population. It should be noted that as a judge I had not met any of the recipients in person,²¹ nor was this study to serve as any kind of a formal program evaluation for TEDS. Beyond convenience, I had at my disposal an excellent critical case sampling of qualified candidates (Creswell & Plano-Clark, 2007). That stated, TEDS' criteria (see Appendix I) do not speak directly to a student's demonstration of a capacity to 'make change' nor does it use the terms 'student agency' or 'eco-civic leadership.' Rather the scholarship criteria acknowledges students who have exemplified "outstanding environmental commitment, community service, and capacity (and potential) for leadership during the course of their studies."²²

TEDS' criteria however, do speak directly to "outstanding student capacity for leadership" as well as "outstanding potential as an environmental leader." In turn, I see strong value in exploring these youths' perspectives of student agency in relation (at least partially) to 'leadership' as outlined in TEDS' criteria, and why I chose to use the term *eco-civic leader/ship* in this study. Furthermore, my diverse work as an educator makes me well positioned to recognize that TEDS is widely perceived by students and teachers as Canada's top scholarship for honouring eco-civic student engagement and leadership. As such, researching the perspectives of past TEDS recipients and finalists, despite the noted gaps in criteria alignment,

²¹ I had previously met one youth participant through a Students on Ice expedition in 2010.

²² Retrieved at <http://www.earthday.ca/scholarship/eligibility.php>

served to offer contributive insights to evolving research on student agency in the fields of EE and civics education.

Procedure and Data Collection Methods

A triangulation of data collection methods was used in this research study. The three instruments included: 1) an online questionnaire; 2) face-to-face or online interviews; and 3) a face-to-face focus group. Graphic facilitation was also incorporated into the methods (see respective session below for more details). Such multi-text layers enabled me to implicate method as an “emergent construction” (Yardley, 2008, p. 7) in which I attempted to create space for different methods to evolve and in turn, to serve “an empowering, consciousness-raising function” (Hollander, 2004, p. 609). Myself, as researcher, together with the youth participants, co-cultivated an atmosphere in which the kinds of conversations we had – be it through interviews, focus group and/or informal email interactions—represented the more informal and relaxed dialogue typical of daily life (Hollander, 2004). I was mindful throughout the research process however, that “our” collective daily life is situated within the context of a specific community of like-minded people insofar as our shared commitment to environmental and social change (i.e., eco-civic leaders).

Each of the three methods outlined above (i.e., questionnaires, interviews, and focus group) were pre-tested with local youth and/or colleagues, and revised as appropriate before being implemented.

Questionnaires

Upon receiving ethics permission from the University of Ottawa’s Research Ethics Board, as well as permission and approval of all research material from TEDS Program staff, a letter of invitation (see Appendix J) was sent out from the Awards & Recognition

Program Manager at Earth Day Canada. As noted above, 111 past recipients and 256²³ past finalists between the years 2007 and 2013 received the invitation. I chose to focus on scholarship recipients and finalists from 2007 to 2013 for two reasons. First, I wanted to minimize the age effect by having all research participants within the same age demographic—mature youth (age 18-24); and second, I anticipated that in selecting more recent recipients/finalists, I, in collaboration with TEDS staff, would have a higher likelihood in contacting the youth due to the transient nature of this age demographic.

For those scholarship recipients and finalists who responded positively to my invitation to participate in this study, I sent them (via email) an electronic invitation to the online questionnaire.²⁴ See Appendix K for a copy of the online questionnaire, including consent form. Once the participant logged onto the questionnaire, an online consent form outlining participants' rights and study expectations appeared followed by the questionnaire. It was also noted at the start of the questionnaire that it would take approximately 20 minutes to complete and that it would be conducted in English only.

Thirty-one youth accepted my invitation to participate in this study and in turn, completed the online questionnaire. I reflected on possible reasons for an extremely and unexpectedly low participant response rate (8.5% or 31 of 367 invitees). Plausible rationale included the following: 1) the highly transient nature of this age demographic; 2) the frequent turnover and/or use of multiple email and social media contact addresses at any one time; and 3) my data collection period coincided with the start of the academic school year, a typically busy and overwhelming time of year for youth in this age demographic. A richer

²³ These numbers do not include the additional email invitations that bounced.

²⁴ The online questionnaire was created using fluidsurveys.com, a fully Canadian-based organization in which all data is securely stored on Canadian servers.

discussion on the methodological implications of this lower than anticipated level of participant response is discussed at the end of this chapter.

The purpose of the preliminary questionnaire was threefold: 1) the responses, once analyzed, provided a baseline of data. I was interested to see if these youth—some of Canada’s top *recognized* young eco-civic leaders—were articulating a strong sense of student agency and/or were able to reflect on learning experiences in relation to the development of their own capacity to effect change; if not, then these findings alone would be substantial as they would suggest that the gap identified in this study between what we are doing and what we aim to be doing with regards to developing student agency in the context of environmental action learning is significant; 2) the questionnaire participants served as the sample pool for my interview participants; and 3) the questionnaire responses were used to help generate and/or refine my interview questions.

The above 31 completed questionnaires, as well as three additional questionnaires (see below sections for further details) for a total of 34 participants, were saved as individual files. A summary report was also created using a service feature on fluidsurveys.com. This report compiled all 34 participants’ responses under each question heading. A table was created to organize the questionnaire participants’ demographic profile with regards to age, geographic designation based on TEDS regional categories, and population, including a rural/urban designation as perceived by the youth participant (see Appendix L).

Interviews

The second phase of the data collection process involved 11 semi-structured interviews, either face-to-face or online via skype. The aim of these interviews was to probe deeper the relevant material culled from the questionnaire phase of the research study. Interviews were conducted using a *general interview guide approach* (Turner, 2010). With greater flexibility than

a standardized interview format, yet more focus than a conversational approach or “interactive interviewing” (Ellis, 1999), a semi-structured approach enabled me to ask new questions or change pre-constructed questions based on participant responses to previous questions (Turner, 2010). I also borrowed some interview techniques from Critical Incident Technique (CIT) (Urquhart et al., 2003) in which participants were asked to share a story about a particular learning experience and/or moment that they had brought forth in a questionnaire and/or earlier interview response.

Interviewees were self-selected from the questionnaire sample. At the end of the online questionnaire was a notice indicating that I was interested in conducting approximately one-hour interviews with 10 participants; interested individuals were asked to email me at their earliest convenience. Seven individuals from the questionnaire sample contacted me to participate in an interview.

In anticipating a larger pool of questionnaire respondents (i.e., approximately 25-35% as opposed to the 8.5% response rate), I imagined, in turn, having to choose the 10 interviewees from a larger number of interested individuals. In my research proposal I had expressed interest in selecting the 10 interview participants in such a manner as to collectively represent the diversity of the TEDS winners. For example, I wanted to consider in my ‘purposeful sampling’ (Patton, 2002) attention to gender and socio-economic status. Accordingly, I was aware of gender discussions in the context of EE research which reveal that girls demonstrate stronger pro-environmental attitudes, behaviours, and environmental responsibility than boys (Chawla & Flanders Cushing, 2007), a statistic I have observed firsthand as a national judge for TEDS (i.e., 17 of 20 finalists in 2013 were girls). Likewise, I was mindful of the tension in EE research findings that suggest youth with lower socio-economic status are more likely to show conservation behaviours (Chawla & Flanders

Cushing, 2007), while at the same time youth environmental engagement (at least in a North American context) is typically the domain of students from middle class families (Arnold et al., 2009).

However, with only seven participants eagerly contacting me for an interview, even after sending a follow-up email to all questionnaire respondents re-inviting them to participate in an interview, I embraced, in turn, a first come-first serve approach. See Appendix M for interview consent form. See Appendix N for interview guide. In knowing at the time of the focus group (see next section) that I was a few youth short of my desired sample size of interviewees (i.e., 10), I welcomed the enthusiasm of three additional youth, each of whom met my research criteria, to participate in an interview following our shared focus group experience. An additional youth, separate from my focus group, was extended an invitation to participate in an interview upon a conversation we shared at the Earth Day Canada's (EDC) annual fall youth conference of which my focus group was part (see next section). She was the most recent TEDS recipient of a national scholarship, obviously meeting my research criteria. This group of 11 youth interviewees strongly reflected my participant suitability and enabled me the desired opportunity to examine more deeply the questionnaire and focus group findings with a substantial sample size.

Each interview was between 45-70 minutes in duration. With nine of the youth, interviews were conducted via skype. The remaining two interviews were conducted in person at the EDC youth conference. For the interviews conducted via skype, I used an online digital voice recorder software and created MP3 files of each interview. The two face-to-face interviews were recorded using a portable handheld recorder. These recordings, once uploaded to my computer, were also converted and saved as MP3 files. All 11 interview files were then transcribed by ear and saved as word docx files. Back up files of each

interview recording and transcription were made and stored on a separate hardware device. Borrowing from methodological suggestions put forth by Ellis (1999) in her work on “heartful autoethnography,” each interviewee was sent the respective transcription from his/her interview. The purpose of this act was not to have the participants edit the transcription in anyway but rather to strengthen reliability of data by giving them “a chance to comment, add materials, change their minds, even offer their interpretations” (p. 674). See Appendix O for the interview participants’ profiles with regards to age, gender, and current academic status.

Focus Groups

The third data collection method for this study was a focus group. In my research proposal I had articulated a design plan to bring as many interviewees as possible together for a collaborative discussion forum that was guided by a more action research-oriented approach; as initially envisioned, this discussion forum would take place once I had conducted my initial analysis of the above two sets of data (questionnaires and interviews) and that the specific format for this collaborative discussion forum would be chosen based on the location of the interviewee sample population. For example, if half or more of the 10 interviewees were living within a relatively close proximity to one another (i.e., Toronto-Ottawa-Montreal corridor) I would then choose to bring these youth together for a face-to-face focus group. If the interviewees turned out to be scattered across vast geographical distances (Canada and potentially beyond of which I anticipated) I foresaw using an on-line private discussion forum (i.e., wiki) as my focus group method. The rationale for this final collaborative data collection approach was twofold. First, I wanted to model the application of ecological thinking in my study by using a more relational approach—moving beyond a focus on the individual to the collective. Second, I intended to model the necessary awareness of researchers (and educators) to better create space to support

the development of student agency by having participants serve as co-theorizers and partners in exploring a new framework or visual conceptualization of student agency from a youth perspective (in contrast to or as an evolution of my preliminary framework— see Figure 3 and Appendix H). However, in embracing an emergent approach to this study, an unplanned opportunity to conduct a more convenient and conventional focus group presented itself.

During the early stages of my data collection phase I was approached by TEDS program staff about the idea of facilitating a workshop in relation to my doctoral study—an ‘action research’ workshop of sorts— as part of EDC’s 2013 conference—‘*Beyond Green*’— that was taking place on October 25-27th in Toronto, Ontario, Canada. The nearly 1000 conference attendees were comprised of youth, aged 14-30, who self-identify as young environmental school and community leaders. The above youth may have been past recipients/finalists of TEDS, past or current EcoMentors program participants,²⁵ and/or environmentally engaged youth from across Canada who had not been previously affiliated with any EDC programming, including TEDS. Regardless, each of the above youth descriptors aligned well with my study’s criteria. In turn, I embraced this emergent opportunity to conduct a face-to-face focus group with interested conference youth. See Appendix P for my focus group workshop description as advertised to all conference attendees.

Fourteen self-selected youth attended my focus group; six were high school students (ages 14-18); four were university students (ages 19-late 20’s); and four were young professionals (approximate ages between 25 and 40) including a high school teacher, a program coordinator for Natural Step Youth Sustainability Program, a social entrepreneur,

²⁵ EcoMentors is a program run by Earth Day Canada that provides the opportunity, training, and resources for youth to be active leaders in raising awareness and promoting positive change in support of a healthier environment. For further information visit www.ecomentors.ca

and an intern with YMCA working on environmental sustainability projects. For the purposes of this study I only included the data presented by the six focus group participants who fell within my study's desired age demographic—mature youth (18-24)— as well as including two 16-year old high school students in attendance; it was evident in the introductions made by these two 16-year olds at the start of the focus group that their experience and insights as young eco-civic leaders strongly aligned with those of the study participants to date. Thus the data from a total of eight participants in this focus group were analyzed and incorporated into the findings of this study. However, all 14 focus group participants signed the consent form at the onset of the focus group session. See Appendix Q for focus group consent form.

As none of these eight targeted focus group participants had completed the online questionnaire or an interview prior to the focus group as I had envisioned in my proposal, I modified my proposed focus group guide accordingly (see Appendix R for focus group guide). The objective shifted away from the more co-creative process as outlined in my proposal in which participants would potentially co-theorize about the conceptual framework put forth in this study and/or other emergent visual conceptualizations of the development process of student agency. Rather, the goal of this focus group opportunity was to collectively share personal insights on similar questions posed during the questionnaire and/or interview methods of this study. For example, focus groups participants were asked to share, through a learning circle format, if they: 1) 'identified as an environmental or eco-civic leader and/or as a change agent;' and 2) 'what competencies they felt youth needed to develop (and how) in order to be(come) a young person capable of effecting change.'

As a result of it being an emergent focus group opportunity, involving youth that, although representative of my research criteria, had not engaged in the research process to

date, the data gathered was limited. Furthermore, the focus group, open to all, was attended by as many adult leaders as it was youth leaders; each of these adults, all working or studying in the area(s) of youth engagement, youth sustainability action projects, and youth environmental leadership, came, not surprisingly, with their own agenda of inquiry.

Although my focus group followed a sharing circle format, and was well received by all participants as “truly engaging” and an “inspiring session,” the emergent composition of this learning community was, for the purposes of this study, somewhat limited.

Following the focus group however, three youth who offered rich insights during the collaborative session were interested and invited to fill out the online questionnaire and to participate in an interview. In response, two of the three youth followed through in completing the online questionnaire and all three youth eagerly participated in an interview. As a result, this brought my questionnaire response total from 31 to 33 and brought my interview total from seven to 10 participants. Also at the EDC youth conference in Toronto, I had an opportunity to unexpectedly meet one of the 2013 TEDS recipients in person. In our conversation she immediately made the connection between me and the research invitation letter she had received weeks before; in her own words she expressed having “dropped the ball in responding” but was keen to participate if the opportunity still existed. She committed on the spot to completing the online questionnaire and to participating in a 1-hour interview via skype the week following the conference. She honoured both of these commitments. To reiterate, the intention of this study was not to get a “representative” sample of Canadian youth. In fact, it is a particularly un-representative sample. I wanted to investigate a very specific demographic—some highly engaged and recognized young eco-civic leaders. The three youth noted above fit this targeted demographic, thus why I seized the opportunity to include them in this study.

As a result, this brought my final questionnaire and interview totals to 34 and 11 respectively. Moreover, I had a further unexpected opportunity to meet in person at the conference one of the youth who had responded positively to my initial research study invitation and thus had already completed both the questionnaire and an interview with me via skype. I embraced this emergent opportunity and conducted, with her consent, an impromptu follow-up, face-to-face interview with her between workshop sessions at the conference. As a result, although my total number of interviewees for this study was 11, with this one particular interviewee, I had conducted two interviews.

The above face-to-face focus group was recorded using two separate personal handheld recording devices positioned at either end of the room. These recordings were then uploaded and stored as MP3 files on my computer and back up files of each were created and stored on an external hard drive. These files were then transcribed by ear and stored as word docx files. The two transcriptions (one from each recording device) were then cross-referenced to ensure accuracy. Once achieved, a single transcription was then used in going forward for data coding and analysis purposes. See Appendix S for the focus group participants' profile with regards to age, gender, and current academic status.

Once I conducted my initial analysis based on the above three sets of data (questionnaires, interviews, and emergent focus group), I concluded that going ahead with a second focus group with the 11 interviewees as originally envisioned was not necessary; a decision that was supported by my supervisor. First, we felt that I had already gathered a large amount of useful data at this point, a collection of data that required a significant amount of time and focus to comb through in detail without risking being overwhelmed by further data. Second, in acknowledging that due to the geographical circumstances of the 11 participants, that moving ahead with a 60-90 minute on-line discussion forum would likely

not elicit the level of collaborative and co-theorizing data that I had envisioned, nor provide any new data that would alter my preliminary findings. Although I was keen to model a more relational research approach and to create an opportunity in my research design to support the possible further development of student agency in (some of) the participants, I recognized the above joint decision as the right one for this particular study at this moment in time. My interest in knowing how the youths' insights might enhance, inform, and/or evolve the conceptual framework put forth in this study was still mildly achieved as some of them informally offered feedback and comments by email after I sent them a summary of my findings along with a book in gratitude for their participation in my study.

That said, I was/am still left reflecting on at what level do we consider research as relational. More specifically, what methodological tools must an educational researcher have in place in order to examine, embody, and model the concept of relationality within the research methodology? Certainly, Clandinin, Pushor & Orr's (2007) work referenced earlier, outlining the eight "design elements for consideration in narrative inquiry," serves as a useful entry point for further reflection in my own evolving practice as a new researcher. In future research on this topic, I would extend my approach to methodology by creating the research space for youth participants to engage more fully as co-participants, particularly in the "process of making the findings public" (Clandinin & Ciane, 2013, p. 172). For the purposes of this study, my time spent in the field with these youth and the collaborative approach to the interviews (see *Interviews* section), coupled with the participatory action orientation of this study insofar as its broader focus on "bringing about change in [EE] practice," leaves me comfortable with the methodological tools I used to model relationality within this research (Creswell, 2007, p. 22).

Graphic Facilitation

Beyond the methods used in this study as outlined above (i.e., questionnaires, interviews, focus group), I also incorporated graphic facilitation into my research as a data analysis and representation method. During the research process I approached a local graphic facilitator, Jennifer Sheppard, to assist in creating a visual interpretation of the key findings and emergent narrative themes. The purpose for using graphic facilitation to highlight the findings were threefold: 1) to serve as an artifact of the thinking that emerged from and within this study; 2) to serve as a creative knowledge mobilization and dissemination tool for this research; and 3) to serve as a useful entry point for future discussion post-study with youth, teachers, administrators, researchers, and other educational stakeholders who are focused on student agency development.

The graphic facilitator and I met for 60 minutes at a local coffee shop at the onset of the research to discuss my idea and rationale for wanting to incorporate her work into my study. We then met several months later, once my analysis of findings was complete, for a 60-minute session via skype as she was traveling overseas at the corresponding time. During this digital session, I talked through the research process and my central findings, speaking specifically to the three emergent narrative themes from the study. She simply listened and drew a visual interpretation of what she ‘heard’ (see end of Chapter 7). This process was extremely valuable to my overall analysis; it challenged me to articulate the findings as succinctly as possible while at the same time, illuminating the relational aspects of the findings beyond the text. The drawing become both a visual ‘harvest’ of the study and an engaging tool to advance future thinking about teacher practice around the development process of student agency in the context of EE, civics, and social justice-oriented learning, as

well as in more general educational foci on student engagement and student voice, both popular in current school board discourse. As put by Jennifer, the graphic facilitator:

Imagine what's possible when this artifact is shared with STUDENTS, teachers, administrators, parents and other stakeholders and they are invited to inquire together about the same topic! The artifact can be a useful starting point to share the thinking to date, and build on it.

Document Analysis

In my research proposal I stated that I would conduct a document analysis of each of the interviewees respective TEDS application—a 10-page document consisting of short answer questions, two short essays,²⁶ two reference letters, and official school transcripts. It was suggested that the purpose of the document analysis, which was to take place after the questionnaire phase and before the interview phase of data collection, was to further refine the interview questions and to pre-identify different interpretations of student agency, as well as any key learning experiences that were articulated in the participants' TEDS application. Such discoveries, I suggested, could serve as “critical incidents” to further unpack in the interview.

Once I began my research however, I decided not to conduct a formal data analysis. Since this research project is not a longitudinal study I am not specifically looking to see if the youth's thinking has changed over time. Furthermore, in most cases, the length of time between their TEDS recognition and this research study was a matter of 1 to 3 years, not necessarily a significant amount of time for self-reflexivity in the context of this research. I also chose to dismiss conducting a document analysis of the applications because of the high probability of redundancy in the data. In having served as a national judge for TEDS for four years I was very familiar with the application questions and the types of application responses; the questions I posed in my questionnaire directly overlapped with the most pertinent questions on the TEDS

²⁶ Candidate's Leadership Assessment *and* Significant Contributions to Environmental Activities

application with regards to this research study. In particular, the two short essay questions posed in the TEDS application—candidate’s significant contributions to environmental activities & candidate’s leadership assessment—correlated with my primary questionnaire and interview questions. For example, I asked in the questionnaire: ‘can you give me an example of an action project or community initiative that you think best reflects your capacity to ‘make change?’ Although the TEDS questions focused specifically on ‘leadership’ and ‘environmental’ activities, my more open ended question on participants’ capacity as a ‘change maker’ elicited very similar responses, thus adding no additional information of significance. To support my decision to forgo the document analysis phase of this study, I cross-referenced three participants’ TEDS applications with their respective responses to my study’s questionnaire. In doing so, I found no new data that would not have surfaced or been explored in the follow-up interview phase of the study. The decision to not conduct a formal data analysis was supported by my thesis supervisor.

Methodological Limitations

Although my research focused on the understandings and development process of student agency from a youth perspective, I was mindful that I was only investigating and hearing from one particular lens within the youth demographic. This study explored student agency among a group of youth who became highly engaged in environmental issues (for whatever reason) and not among students who, also with critical insights to share, had not been engaged (for whatever reason). My sample population represented young Canadian eco-civic leaders who are currently registered in full time studies at a Canadian high school, Quebec Cegep, or an accredited Canadian college or university. My sample thus reflected the perspectives of young people who value, who have succeeded, or who have access to the (more) socially valued path of formal education. This research did not include insights into youth capacity to make change that may

come from those youth who have chosen to operate ‘outside’ of the schooling system, a space that often supports more innovative thinking and change.

As for my extremely low questionnaire response rate (8.5% or 31 of 367 invitees) and my suggested rationale outlined earlier in this chapter, I initially questioned the validity of this data. Was this a large enough sample population and representation size to give ‘weight’ to my findings and subsequent analysis? However, through constant reflection throughout the research process, I was confident of the validity of this body of data largely because I was continually cross-referencing these findings with ongoing informal surveying I would conduct with similar-aged youth who aligned well with the study criteria while immersed in my various work capacities outside of those as a graduate student and researcher (i.e., when working with local high school students on amplifying their school eco-club projects or when giving a keynote to high school eco-civic leaders who were taking part in the *Encounters with Canada program*,²⁷ as examples). In each of these circumstances the responses I would get to questions I posed (similar to those from my study) would invariably elicit similar responses. Although these served simply as anecdotal observations for me in my broader practice as an educator, it affirmed that the responses of the 34 questionnaire participants did, generally speaking, reflect the thinking and shared responses of a much broader pool of youth who fit the criteria for my study.

In having outlined my methodological approach and data collection procedures above, I now turn to sharing my approach to data analysis.

²⁷ Taken directly from the Encounters with Canada website, this program “is our country’s largest and foremost youth forum! Every week of the school year, 120 to 148 teens from across Canada (ages 14 to 17) come to Ottawa. Here they discover their country through each other, learn about Canadian institutions, meet famous and accomplished Canadians, explore exciting career options, develop their civic leadership skills and live an extraordinary bilingual experience.” Retrieved at https://www.ewc-rdc.ca/en/about_us/index.html

Analysis & Questioning Rigor

As a novice researcher, rigor was something I was curious about. Did my study include a rigorous approach to “data collection, data analysis, and report writing” as advocated for in qualitative research texts (Creswell, 2007, p. 46)? Of equal importance, did my approach to research have the same interpretation and depth of rigor that I strive to apply daily in my work as an educator and practitioner as defined in the following quotation: “rigor is being in the company of a passionate adult who is rigorously pursuing inquiry in the area of their subject matter and is inviting students along as peers in that adult discourse.”²⁸ And how could I measure my own degree of rigor as I moved through my research? With these questions continuously circling overhead, I began the process of data analysis.

Several preliminary readings of the multiple texts gathered through the data collection phase took place. These texts included 34 individual questionnaire responses, one questionnaire summary report, 11 interview audio files and transcriptions, one follow up interview audio file and transcription, two focus group audio files (of the same focus group), one focus group transcription, several graphic drawings as artifacts of the analysis process, and my personal notes taken throughout the research process. Before applying my modified version of Tannen’s framework to identify emergent narrative themes, I was mindful of the ‘incubator factor’ and my desire to “really live with the data” (Bloomberg & Volpe, 2008, p. 99). I further embraced the suggestions put forth in Gilligan et al.’s work (2003) on the *Listening Guide* method; that is to say, I had multiple ‘listenings’ (rather than readings only) of the text in order to attend to the “many voices embedded in a person’s expressed experiences” (p. 157). A self-reflexive mindfulness was ever present as I walked within and

²⁸ Stated by the Head of School, Connect Charter School (formerly the Calgary Science School)—see <http://vimeo.com/16374899>

between my multiple roles as researcher, educator, student, and community youth advocate; I was aware of my “emic (insider) point of view” (Bloomberg & Volpe, 2008, p. 13), not just as a qualitative researcher but also as a member turned mentor of the broader network(s) of young environmental leaders across Canada. I continually checked in with myself as to any tensions, biases, or challenged assumptions that stirred in me with each listening and reading of the various texts.

Moving in “analytic circles” as suggested by Creswell (2007) I began to engage more deeply with the data. It felt an emergent, and at times chaotic, choreography of procedures rather than an effort of coordinated actions; a feeling comforted by what Crabtree and Miller (1992) name an “immersion approach” and further described by Bloomberg and Volpe (2008) as a fluid, interpretive, intuitive, creative, and non systematized analytic approach. Onwards, I moved from, within, and between the four procedural elements outlined by Creswell including: 1) data management; 2) reading, memoing; 3) describing, classifying, interpreting; and 4) representing, visualizing (p. 151). As this circuitous process continued, a sense of rigor emerged as I navigated an evolved coding procedure for each set of data (i.e., questionnaires, interview transcriptions, focus group transcriptions) followed by a triangulating process to cross-reference emergent themes between the different sets of data (Yardley, 2008). Furthermore, I compared responses to each method for “clues about how the context affect[ed] response” (Hollander, 2004, p. 630).

Approach to Data Analysis

There were three central points of interest in approaching my analysis: first, I was interested in how the research participants’ interpretations of their own sense of agency related to my conceptual framework (see Figure 3 and Appendix H); second, I was interested in where the kinds of learning experiences that the youth identified as important in the

development of student agency fell on my conceptual framework; and third, I wanted to understand how the youth's critical (and collective) insights led, if at all, to early thinking towards a modified or different framework. In other words, did the focus group participants offer any insights as to a new visual conceptualization of the development process of student agency? And if so, I was curious as to how their emergent insights and/or (re)conceptualizations (Pinar, 1975/2000) might help EE practitioners and researchers to not just theorize about socio-ecological change but to actually put it into practice.

Against this analytical backdrop, I approached coding with three layers in mind: 1) to identify 'small-n' and 'Big-N' narratives in relation to my three research questions; 2) to identify 'small-n' and 'Big-N' narratives in relation to my three points of analytical interests outlined in the above paragraph; and 3) to identify any relational insights between my conceptual framework and any conceptual insights put forth by the youth participants. With these three layers in mind, and guided by an immersion approach, I began to highlight any relevant words and/or key phrases that stood in some relationship to my research questions (i.e., 'change,' 'learning experience,' 'capacity for action,' etc). These relevant highlights were accompanied with notes made in the margins of any "ideas, thoughts, reflections, and comments" that came to mind (Bloomberg & Volpe, 2008, p. 101). It should be noted that my data analysis often took place concurrently with data collection rendering an iterative process in which there was "continuous movement between data and ideas" (p. 12). As movement and multiple reads continued, I then began to distill, dissect, and organize data under emergent Big-N Narratives (i.e., "big ideas") and small-n narratives. This process enabled me to manage and reduce my data using my conceptual framework and research questions as the "centerpieces" in my coding scheme (p. 102). See Appendix T for coding legend. Data summary tables and/or participant summary forms were created for each set of

data and were done so in tandem with coding to ensure a rigorous process of recording participant responses (Bloomberg & Volpe, 2008, p. 103).

Approach to Representing the Findings

Broken down by data collection method, I describe the analytical process in detail in the following two chapters while sharing the key findings from each method (i.e., Chapter 5—findings from questionnaires & focus group; Chapter 6—findings from interviews). Emphasis was placed on “letting participants speak for themselves” (Bloomberg & Volpe, 2008, p. 111). Illustrative quotations taken from the questionnaires, interviews, and/or focus group were used in an effort to highlight both the range and overlap of the youth’s perceptions and interpretations of the subject matter. With the bulk of my data coming from the questionnaires and interviews, I chose to re/present the data by assigning central findings from each of these methods to a designated chapter as noted above. Findings from the focus group, although not insignificant, are presented and discussed as a smaller section within Chapter 5 for reasons specifically outlined at the start of the next chapter.

My decision to organize the presentation of the findings in the above way was largely a means through which to manage the sheer volume of data, but also because I was curious to explore if the research context impacted the findings. As Hollander (2004) suggests, a “comparison of responses to each method can provide clues about how the context affects response” (p. 630). With youth as my research participants, I was interested in observing whether or not interviews and/or a focus group that “mirror the kinds of conversations participants might have in their daily lives” offer richer insights compared to other methods (p. 607). Similarly, are the youth’s ideas socially-constructed, as Hollander further suggests, through the “process of interaction” that is privy to a focus group (p. 611)? This line of inquiry stems from my interest in Brent Davis’ (1997) work on *hermeneutic listening*, as

noted earlier, and the idea that what is ‘released’ from the process of interaction is as, or perhaps more, important than the individual stories shared throughout the questionnaire and interview phases of the study.

Furthermore, by breaking down the data presentation by method, I perceived an enhanced opportunity to analyze the data by combining participants’ insights shared with my own reflections through my lens as a researcher and/or an educator. This approach allowed for a more collaborative narrative to emerge (Clandinin & Connelly, 2000). Much like education, research is always contextual. I now turn to presenting the data emergent from the respective three methods: questionnaires and focus group (Chapter 5) and interviews (Chapter 6).

“I AM THE CHANGE” IS NOT ENOUGH: Chapter Five

It involves people taking up the power of agency that is latent in every situation requiring change and becoming implicated participants in changing the status quo.

(Heather Menzies, *Reclaiming the Commons for the Common Good*)

Based on my research findings, developing an understanding of and capacity for broader change in the social sphere is not part of current EE practice, despite the promising language of recent EE policy documents in Canada (see Chapter 1). A significant majority of the youth in this study perceived the locus of change and action to reside within the individual. In other words, most of these youth identified one’s personal ‘actions’ and ‘choices’ as the vehicle for change. Very few youth held a perception of change that resided outside of or beyond the individual (i.e., collective action in the social sphere). Furthermore, even fewer participants spoke about an embodied capacity to effect broader social, political, or systemic change. These central findings are outlined in this chapter in relation to my analysis of the questionnaire and focus group data specifically, although a disproportionate amount of this chapter will focus on the questionnaire findings as they drew from a larger sample of participants (34 as opposed to eight) and they provided a richer set of targeted responses specific to my research study. Although the focus group findings were not insignificant, they did not offer any new or contradictory data to those gathered through the questionnaire and interview methods. Nonetheless, a few relevant findings will be shared in the final paragraphs of this chapter. I now turn to presenting the questionnaire findings.

Questionnaire Findings

A total of 34 youth completed the online questionnaire. In relation to my research questions and participant demographic I organized the data into four analytic categories.

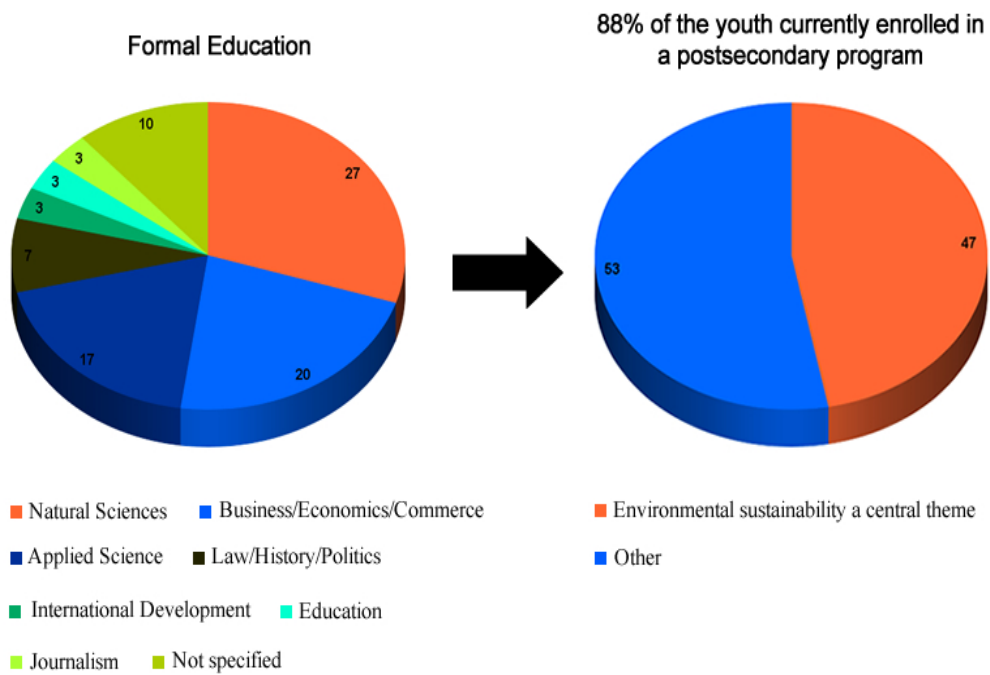
These included: 1) Participant profile—TEDS specific data; 2) Participant profile—current activities; 3) Participant perceptions of eco-civic leadership; and 4) Participant perceptions of how they learned (i.e., formative learning experiences). The first category, focusing on TEDS specific data, had three subheadings which were as follows: a) award designation; b) source of awareness of TEDS opportunity; and c) motivation for applying to TEDS. These data offered some preliminary background information as part of the larger participant matrix. Out of interest, it also allowed me to cross-reference this limited data in broad strokes with the educational literature on the motivational influences of/behind young (and young adult) environmental leaders (Almers, 2013; Arnold et al., 2009; Hsu, 2009). However, these data were also gathered for the EDC staff of who were keen to hear my findings to these particular questions for their own organizational interests (see Appendix U for this data).

Participants' Current Activities

The second analytic category provided me with a participant profile matrix that focused specifically on participants' current activities with respects to: a) formal education; b) paid/volunteer work; and c) personal interests and hobbies. In using a quasi-statistical approach, borrowed from content analysis methods, I “chunked” and converted the data on the participants' current activities distilled from the questionnaires into a quantitative format (Bloomberg & Volpe, 2008). The following profile findings are worth sharing below as context background. With regard to **formal education**, 79% of these youth (27 of 34) were enrolled in an undergraduate degree; 6% (2 of 34) in a Master's degree; 6% (2 of 34) in high school; 3% (1 of 34) in a college diploma program; 3% (1 of 34) had graduated from a postsecondary institution and current activity was unspecified; and 3% (1 of 34) were engaged in non-formal learning activities. Of the 88% (30 of 34) of participants who were

currently enrolled in a postsecondary program, I was interested in knowing their particular areas of study, and furthermore, to see the extent to which environmental sustainability was a specific focus of their studies. Of significance, I found that out of the 88% (30 of 34) of the youth currently enrolled in a postsecondary program, 47% (14 of 30) were enrolled in a program in which environmental sustainability was a central theme (see Figure 4 below).

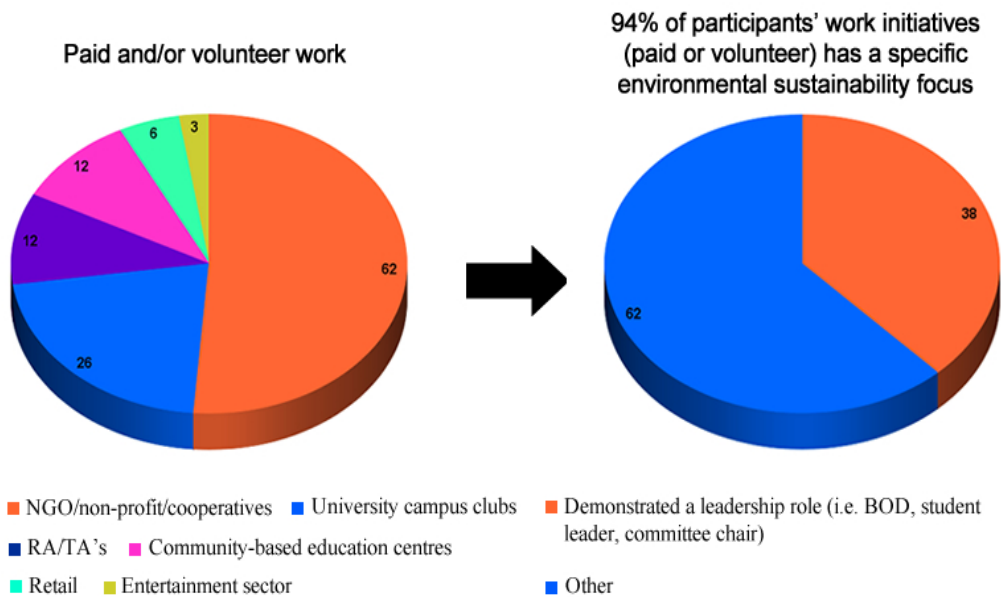
Figure 4: Questionnaire Participant Profile—Current Education



With regard to **paid and/or volunteer work** I was interested in knowing the kind of work that these youth were doing (see Figure 5 below), but like above, was also keen to identify the extent to which their chosen work initiatives had a specific environmental sustainability focus, as well as a demonstrated leadership role (i.e., member of a Board of Directors, student leader, committee chair, etc.). Of particular significance, I discovered that

94% (32 of 34) of participants' work initiatives (paid or volunteer) had a specific environmental sustainability focus and that 38% (13 of 34) of their work pursuits demonstrated a leadership role (see Figure 5 below).

Figure 5: Questionnaire Participant Profile—Current Paid/Volunteer Work



To round out the profile on participants' current activities, I also identified what **personal interests & hobbies** were of significance to these youth (see Appendix V). The most pertinent overall finding from this set of organized data was the degree to which environmental sustainability was a focus in these youths' current day-to-day life activity, be it academic, work, volunteer, and/or hobby related. These numbers suggest, and support, the

pervasiveness by which an environmental ethos was collectively present in these youth's chosen livelihoods.

Perceptions of Eco-Civic Leadership

The third analytical category of interest focused on these youths' perceptions of eco-civic leadership and represented the area of principal research significance in relation to my research questions. I divided this category into four distinct, albeit interconnected, aspects of eco-civic leadership. These included: 1) identity—in other words, did the youth participant identify herself as an eco-civic leader; 2) capacity—similarly, what was her perceived capacity as an eco-civic leader; 3) change—how was she interpreting change (i.e., what kind of change); and 4) student agency—likewise, how was she interpreting the concept student agency. I organized the presentation of my findings under these four elements of interest with regards to eco-civic leadership. Along with presenting the statistical findings of significance, I also, in some instances, used direct quotations from the youth questionnaires to further highlight the findings.

1) Identity

In the extent to which the 34 youth participants held a perceived identity as an eco-civic leader, the following results were of interest: 68% (23 of 34) strongly identified themselves as an eco-civic leader; 21% (7 of 34) moderately identified themselves as an eco-civic leader; 9% (3 of 34) identified themselves as having “moved on” from “being actively engaged in the environmental movement;” and 3% (1 of 34) strongly resisted being identified as an ‘eco-civic leader.’ For the youth who identified strongly as an eco-civic leader, there were several reoccurring themes across their responses such as: a) passion about the environment (i.e., “*Yes, I identify myself as an eco-civic leader. I believe that since I am passionate in certain [environmental] issues, with some courage I automatically have the*

potential and capacity to become a leader”); b) involvement in environmental initiatives and community; c) commitment to learning about the environment (issues); d) engagement and education of others in/about environmental issues/initiatives (i.e., “I would call myself an eco-civic leader because I always try to set an example of eco-actions for others to follow. I also actively support others who are trying to make a difference”); and e) stewardship or protection of the environment (i.e., “I identify myself as an eco-civic leader because I realize my place within the environment and also my duty to protect it.”)

For the youth who identified more moderately as an eco-civic leader, several of the same themes as above were evident across their responses. However, there was a demonstrated humbleness that accompanied their responses and a perceived awareness of “scales” of leadership, to which this particular youth spoke:

I think everyone has the potential for civic leadership (including eco-leadership), at varying scales. While I might not be an eco-civic leader recognized in the broader society, by taking leadership action even within my community and school, I am able to identify as an eco-civic leader because of my efforts to contribute to my community.

The above youth was a national recipient of TEDS, the highest recognition level within the scholarship award. Interestingly, her perceived identity and capacity as an eco-civic leader was more moderate, and at times, was self-expressed as “limited” in comparison to her peer participants. Despite her recognized TEDS distinction (i.e., a national recipient), she did not identify as an eco-civic leader beyond her school and local community. For this particular youth, her perceived identity was directly influenced by her perceived *capacity* to effect change, which I will discuss in the next section.

For the three youth who identified as having “moved on” from an identity as an eco-civic leader it was more a change of or ‘letting go’ due to circumstance (i.e., a move to a new community or starting university) that was at the source of this perception, as opposed to

having changed identities (i.e., “*Yes, though perhaps not at the moment. Through my grade-school years I was certainly an eco-civic leader; however, currently I am living in a new town and focusing on my studies.*”) For the one youth who outright did not identify as an eco-civic leader, this perception was rooted in language and the nuances that come with any discourse (i.e., sustainability discourse). Her response, noteworthy in full, was such:

No, I do not identify myself as an eco-civic leader. I am a community facilitator that works to build resiliency and strength in my community. This is done through food security initiatives, environmental initiatives, political participation, social responsibility, and simple acts of kindness in my community. I do not identify as any one kind of leader, rather as an engaged member of my community who looks to participate in or lead projects that contribute to its overall sustainability and resiliency.

As the above findings suggest, there exists not only varying perceptions of identity as an eco-civic leader but moreover, there exists a spectrum of interpretations as to what eco-civic leadership means as demonstrated by these youth. From one’s personal sense of passion, potential, and/or comfort in “taking risks,” to perceived levels of “involvement in initiatives” or “engagement in issues” or “educating others,” to an overall “mindfulness of community needs,” this range of interpretation was, although not surprising, insightful in relation to one of my central research questions which focused on how youth interpret their own sense of agency. These insights deepened as I continued to examine the data through the other 3 analytic categories (i.e., ‘capacity,’ ‘change,’ and ‘student agency’) under the broader theme of youth perceptions of eco-civic leadership. Before I turn to presenting this subsequent data, it is worth noting that three participants commented on finding the term ‘eco-civic leader’ to be “silly,” “unfamiliar,” or a “term that I would not use.” As one youth put it: “*I wouldn’t have used that word before, but I suppose it could describe me. I have ‘leadership’ positions in a number of organizations that seek to create sustainable cities through transportation improvements.*” Although my choice of language (i.e., eco-civic

leader) did not resonate with some of these particular youth, the broader conceptual notions were in alignment.

2) Capacity

In wanting to develop a better understanding of how youth perceive their own sense of agency as an identified eco-civic leader, an important element to examine was their perceived *capacity* to effect change. Beyond identifying (or not) as an eco-civic leader, I wondered whether they considered themselves as capable of making change. These findings, as in the above section, directly related to my principal research question on how youth perceive their own sense of student agency. What I discovered from the questionnaire data was that: 70% (24 of 34) expressed a strong belief in their capacity to make change in society; 21% (7 of 34) expressed a moderate belief in their capacity to make change; and 9% (3 of 34) expressed a limited belief. For the majority of youth (i.e., 70%) who expressed a strong belief, their existed less variance in the sources behind this perception as compared with the rationale offered in relation to perceived identity above. Across the youth responses that demonstrated a strong perceived capacity to effect change, it was largely ‘personal experience(s)’ that grounded this notion (i.e., *“Through a number of experiences, I have learned that I most definitely have a capacity to make a change in society in a variety of ways”*).

However, one response stood out to me as it did not reference, like the majority of others, ‘past experience(s)’ as the grounds for a strong perceived capacity to effect change. For this particular youth, gender and class lay at the roots: *“I think that as a middle class male from a safe background I am extremely privileged in that I do have the capacity to carry out my vision on the world.”* Gender and class are realities of practice that directly effect one’s perceived identity and capacity in the context of student agency. However, this

study does not take up a gender or class analysis of the data. This is not be disingenuous to the critical role they play in issues of identity, agency, or culture. They simply were not part of the limited parameters I established for this study. Brief research reflections on gender and class will be touched on in the concluding chapter.

Another point of significance was the extent to which many of these youth identified individual personal actions as their means to effect the greatest change (i.e., “*I believe that the only way I can make a positive tangible difference is through my own personal actions and leading by example.*”) This notion that one’s capacity to effect change was expressed as greatest through role modeling individual actions represented a common theme in many responses across this particular grouping of youth. Only one youth offered a more targeted response: “*I think that I have great capacity to make change in society. I do this through localized action on specific projects, projects that have the most on-the-ground benefit.*”

For the seven youth (or 21%) who expressed a moderate capacity to make change, there was a common recognition of “limitations” in trying to make change. Interestingly, in a majority of these responses, the perceived limitations were stated in the context of an ‘individual’ (of any age) trying to make change, as opposed to challenges being specific to ‘youth’ trying to make change (i.e., “*I think that our capacity is both large and yet limited in several key ways*” or “*I know from experience that one person can make a change, however small, but I also know from experience how difficult starting a culture shift can be.*”)

However, two youth spoke specifically about perceived limitations to making change in the context of youth. In both instances, the challenge seemed to lie in the place of youth amidst perceived agencies of power (i.e., inferior). One of the youth described it in this way:

I feel that my voice is often overpowered by others, especially those with higher authority. Most people I meet seem to respect my passion for the environment but

they admit that they have higher priorities, think it's a passing trend, or are simply overwhelmed by the thought of trying to change our society dramatically.

The other youth, more focused on decision-making structures, put it this way:

It is still hard to make policy changes in society, so I'd say my own capacity in doing so is limited. Capacity to make change also depends on consultative and decision-making structures. In many instances, young people can be heard, but I feel it is still pretty hard to actually make decisions.

What was most significant about the insights shared by these seven youth who spoke of “limitations” in their (moderate) capacity to effect change, was the collective emphasis they placed on the critical need to network and align with others in order to increase their capacity. For example: *“as an individual my capacity is fairly limited but has most of its impact when you are part of a network of other people.”* Of interest to me was a detected correlation between their perceived capacity to effect change and their perceived means by which to do it (i.e., individual action versus collaboration). The majority of youth (70%) who perceived a strong capacity to effect change, expressed role modeling individual actions as the central vehicle for change. The remaining youth (21%) expressed collaboration as necessary to enhance their capacity to effect change; in other words, there was an interesting correlation between perceptions of capacity to make change and perceptions of the role of the individual in making change. This point of interest served as the major finding of significance to keep in mind as I moved onwards through the data.

The third and final grouping of youth with regard to their perceived *capacity* to effect change were those youth (9%) who expressed having a “very limited” capacity. The correlation noted in the above paragraph was also evident in the responses of these three youth. They, like the youth above, spoke of the need to align and work with others as the critical means through which to (attempt to) effect change. Building on this identified link, it seemed that the more these youth perceptions moved across the spectrum from embodying a

strong capacity to effect change to those who expressed a “very limited capacity,” a central focus shifted from the role and valuing of individual actions as the primary vehicle, to the critical need and importance of collaboration, networks, and a focus on “the process [of change] used.” It was less about what ‘*I can do*’ and more about what ‘*we can do*’ and ‘*how can we do it.*’ Yet at the same time, there was evidence of a declining sense of optimism as the youth moved across this spectrum; in other words, on the one hand, collectively speaking, there was a perceived strong capacity to effect change that was described by a sense that ‘*I am going to lead by example and inspire, educate, “move others” to follow;*’ on the other end, was a perceived limited capacity to effect change that was expressed by a more disillusioned tone, as exemplified by this response:

I am under no illusions about my own capacity; society is a massive, constantly evolving phenomenon with a huge amount of inertia... the approach that many people use is invasive and unsustainable.

Interestingly, all three of the above youth who perceived their capacity to effect change as “very limited” did perceive themselves as having a strong eco-civic identity. It seemed that through a deeper understanding of change on a social and system(s) level, coupled with a more attentive focus on the process(es) of change, these three youth, despite their strong sense of self as an eco-civic leader, recognized the complexities in effecting sustained change. Perhaps experience trumped idealism for these particular youth, a perceived correlation that I paid close attention to as I moved through the rest of the data.

The above observations formed the central finding from this set of questionnaire data focusing on youths’ perceptions of capacity to effect change. A discussion on, and the possible implications of, these findings in relation to the other key emergent themes across the data as a whole will take place in Chapter 7. A summary matrix of the 34 youth

participants in relation to these first two analytic categories—perceptions of eco-civic identity and capacity to effect change—was created (see Appendix W).

3) Change

Along with, and related to, youths' perceptions of eco-civic identity and their capacity to effect change there existed a related analytic category that I was keen to explore. I wanted to better understand how these youth were interpreting the concept 'change.' In other words, when these youth talked about "making change," what kind of change were they talking about? In repeatedly moving through the questionnaire data, a pattern of three Big-N narratives (or themed groupings) quickly emerged. These three themes included: 1) an interpretation of 'making change' as personal/individual actions, behavior, and/or attitude, under which 56% (19 of 34) of participants fell; 2) an interpretation of 'making change' as personal/individual actions and/or behaviours in explicit relation to influencing others' actions (i.e., "being a role model," "inspiring others," "ripple effect," etc.), under which 32% (11 of 34) of participants fell; and 3) an interpretation of 'making change' on a broader social, policy, or 'systemic' level, under which 12% (4 of 34) of participants fell.

To determine the categorical placing of each questionnaire participant within these three themed groupings identified above, I used a cross-referencing analysis of several pertinent questions within each participant's questionnaire data. Throughout this process I reflected on whether or not the design of my study influenced my questionnaire findings; in other words, I asked myself, did targeting *individually* recognized eco-civic leaders, as opposed to groups (i.e., school or community-based eco-civic organizations or clubs), influence my findings? With 19 of 34 (56%) participants perceiving 'change' in the context of individual actions, behaviors, and/or attitudes, I wondered if my choice of (individual) participant sampling skewed these findings. I was mindful of this possibility as the

questionnaire specifically focused on the individual (i.e., can you give me an example of an action project or community initiative that you think best reflects *your* capacity to ‘make change; what do you think about *your* own capacity to ‘make change’ in society, etc.). This was a point of consideration flagged early in the research process. As I proceeded with the interviews and focus group however, I became less concerned as the data collecting tools used in these subsequent two methods were clearly framed by a more relational lens. For example, in the interviews and the focus group, the participants and I together explored such emergent themes as youth-adult relationships or the value and process of establishing community partnerships or the role and influence of (youth) networks in making change.

Furthermore, I cross-referenced the questionnaire responses of the 11 youth who went on to participate in an interview with their respective interview responses relating to their perceptions of/on ‘change.’ Throughout this process, I looked for similarities, differences, and/or variations across and between these two sets of data. In doing so, I found that the youths’ responses were consistent, affirming the categorical placing I had determined for each participant (see Appendix X). In turn, I felt confident that my targeting of recognized individuals as the participant sample for this study had little to no impact on the findings. These findings will be discussed in further detail below in relation to my conceptual framework.

The finding of interest here was that a significant majority of these youth (88% or 30 of 34) interpreted ‘change’ as directly relating to individual actions, behavior, and/or attitude. For this significant majority, ‘change’ or ‘making change’ was perceived in the context of personal change (i.e., ‘my choices and actions make a difference’), a stance that would be commonly identified in the civics or youth studies literature as *efficacy*. Roughly a third of this large majority of participants (32% of the 88%) held a more relational perception of

change insofar as identifying their individual actions as a catalyst to inspiring action in others. They perceived change through the common analogy of their personal actions serving as drops of water, creating ripples that influence others. In contrast, only 12% (or 4 of 34) of the youth spoke of change in the context of broader social, political, or system(s) change, and in doing so identified an existing notion of “levels of change.”

These findings on perceptions of ‘change’ correlated directly with the findings in the above section on youths’ perceptions of their *capacity* to effect change. To recall, 70% of youth expressed a strong capacity to effect change that was interpreted by a focus on individual actions; this finding is comparable with the 56% of youth who interpreted the concept change through a very individualistic lens. Likewise, 21% of youth perceived their capacity to effect change as moderate and noted specifically the need to work with others (i.e., collaboration) to enhance impact; this is comparable to the 32% of youth who interpreted change in relation to others (i.e., change being ‘within us’ as opposed to ‘within me.’) Finally, 9% of the youth in the above section spoke of their capacity to effect change as “very limited” due to a perception of change as more social, system(s), or political in nature; this aligned directly with the 12% of youth who interpreted the concept of change within the sphere of the social. Across the three analytic categories of interest thus far, using data exclusively from the questionnaires, the primary finding of interest was the extent to which the majority of these youth perceived the locus of change and action to reside within the individual. As highlighted in the opening paragraph of this chapter, most of these youth identified one’s personal ‘actions’ and ‘choices’ as the vehicle for change. Very few participants held a perception of change that resided outside of or beyond the individual (i.e., collective action in the social sphere, for example). Furthermore, even fewer participants spoke about an embodied capacity to effect broader social, political or systemic change.

4) Student Agency

The fourth and final analytic category under perceptions of eco-civic leadership that I explored with the questionnaire participants focused specifically on their interpretation of the concept ‘student agency.’ Although I use and define the term student agency as a young person’s capacity to effect change (i.e., the second analytic category), I wanted to know whether the youth identify with and/or comprehend this term in the same way that I do. This particular set of data were analyzed through the use of an organizational chart into which the youths’ responses as to what student agency meant to them were directly inserted (see Appendix X). Two youth did not offer a response, while two others stated student agency meant, “nothing really.” For the remaining 30 youth, their responses demonstrated a unified interpretation (97%, or 29 of 30 youth) of the concept student agency, as youth taking action to: “provoke change,” “to participate in a movement towards positive change,” “to make change,” “to advocate for and enact change,” and/or “to not leaving injustices unchallenged.” Only one youth held a different interpretation of student agency altogether, that being “a group led by students.” It was conclusive based on these responses that a significant majority of these youth shared a similar interpretation of student agency as myself.

In summary, this first section presented findings focused on youths’ perceptions of eco-civic leadership through four specific yet interrelated analytic categories: 1) identity—did the youth participant identify herself as an eco-civic leader; 2) capacity—what was her perceived capacity as an eco-civic leader; 3) change—how was she interpreting change (i.e., what kind of change); and 4) student agency—how was she interpreting the concept student agency. From this data three central findings emerged. First, although the majority of youth identified strongly as an eco-civic leader (68%), there existed a spectrum of interpretations as to what eco-civic leadership means (i.e. one’s “passion,” one’s level of “involvement in

initiatives” or “engagement in issues” or efforts to “educate others,” an overall “mindfulness of community needs,” etc.). Second, the majority of youth (70%) demonstrated a strong perceived capacity to effect change, and interpreted change in turn, largely through individual behavior and action; in other words, the locus of change resides within the individual. Interestingly, for the remaining youth who held a moderate (21%) or “very limited” (9%) perception of their capacity to effect change, they interpreted change as more relational, with the locus of change being located within the collective and/or within the social. There existed a direct correlation between the locus of change and the locus of action (i.e., change is ‘within me’ and my individual actions (can) effect change and/or change is ‘within us’ and our collective actions through collaboration drive change). Finally, an overwhelming majority (85% or 29 of 34) of youth interpreted the concept student agency in relation to the idea of youth taking action towards positive (school, community, and/or social) change.

The above findings pertaining to youths’ perceptions of eco-civic leadership focused specifically on addressing my first research question—how do youth perceive their own sense of student agency. The next section explores the questionnaire data in relation to my second research question—what learning experiences or conditions do these youth identify as formative in the development of their perceived sense of student agency. Below is the presentation of these findings.

Perceptions on Formative Learning Experiences

The questionnaire data pertaining to youths’ perceptions of formative learning experiences in relation to student agency development was organized under two central Big-N themes. These included: a) school-based learning experiences; and b) community-based learning experiences. Under each of these Big-N themes, several small-n themes or

subcategories emerged from my preliminary readings of the data. For ‘school-based learning experiences’ the small-n themes (i.e., sub-themes) were twofold: 1) learning experiences; and 2) learning approaches. For ‘community-based learning experiences,’ the two emergent small-n themes were: 1) local learning experiences; and 2) global learning experiences. Upon several readings of the data I coded key words and/or phrases from the participants responses based on the above Big-N and small-n themes (again see Appendix T for coding legend). Data was then “chunked” accordingly, as presented in Appendix Y (i.e., schooling) and Appendix Z (i.e., community).

School-based Learning Experiences

With respect to formative school-based learning experiences, six central groupings emerged across the youths’ shared insights. Listed in order of response frequency, the six groupings were as follows: 1) leader/member of EE clubs/councils & related projects; 2) alternative/academic programs;²⁹ 3) specific courses & memorable class discussions; 4) “incredible” teachers; 5) field trips; and 6) other. In having been a former classroom teacher and a mentor of school EE clubs and/or EE-related school-based projects, these findings resonated with my own personal experiences and anecdotal observations. First, I have witnessed firsthand the impact peer leadership opportunities (i.e., president of EE school council, coordinator of a school EE project, etc.) have on student engagement, student voice, and overall student success, both perceived and assessed. Second, I have personally experienced both as ‘teacher’ and ‘student’ the (trans)formative impact alternative or

²⁹ The participant responses organized on the theme “alternative/academic programs” correlate directly with the broader subheading “learning approaches;” youth spoke about how the pedagogical approaches (i.e., project-based learning, interdisciplinary learning, experiential learning, etc) used by teachers in these alternative/academic programs enhanced their learning interests, engagement, and success.

specialized programs can have on student engagement, leadership development, and overall student success.

Specialized programs identified as formative by the 34 youth included: the International Baccalaureate (IB) program with its focus on “social justice, international understanding, sustainability & community involvement;” a Grade 10 Community Environmental Leadership Program (i.e., focused semester programs, SHSM’s in Ontario schools, etc.); DEC in ‘sciences, lettres et arts’ in Cegep (i.e., multidisciplinary pre-university program); “a high school program that emphasized leadership, hands-on projects, social justice, and sustainability;” a “field school” as part of an undergraduate Science program; and a formal Fine Arts School (gr 1-12). Typically, and affirmed by the youth participants’ responses, these specialized programs embrace a more project-based, interdisciplinary, experiential, inquiry, and/or place-based approach to teaching and learning, approaches that these youth collectively identified as being critical in their engagement and development as learners and as young eco-civic leaders (i.e., “*My Grade 10 Community Environmental Leadership Program had an immense effect on who I am today.*”)

The positive influence passionate, knowledgeable, and creative teachers have on the learning process, student development, and the overall learning experience is, as we all know and have experienced firsthand, undisputable. As one student commented, “*it is motivating to have teachers who do not just put information on an overhead, but who are passionate about the course they are teaching.*” Another student put it this way: “*he’s really passionate about what he teaches... and not only does he really know his stuff, he wants you to see the connection with the real world.*” Many of the youth participants spoke of their (good) teachers as ‘mentors’ or ‘role models,’ which once again, did not surprise me. However, a

couple of the youth spoke about teachers more as ‘facilitators’ or as ‘partners’ than traditionally viewed mentors. One particular youth shared this perspective:

You have activists or motivated youth who want to get stuff done whether it be within the framework of the school or community groups or whatever, but ultimately the reality is that adults gotta be in there too so it’s about finding middle ground, being good partners, and you know deciding what the decision making process or responsibilities are going to be beforehand.

Although it was a small minority of the questionnaire participants (12% or 4 of 34) who spoke of teachers in the context of ‘partners’ or what I would name ‘co-participants,’ it was an important insight that also emerged in the interview and focus group data. A full discussion on youth-adult relationships takes place in Chapter 7.

The impact of “incredible” teachers, as well as specialized and pedagogically progressive programs and peer leadership opportunities are collectively important findings on a personal level as they affirm what I have come to know experientially. However, these findings are also important research-wise as they add voice to a groundswell of movement in public education discourse, as well as in educational literature, that is questioning our “twenty-first century” education and its’ assessment-crazed, institutionalized, and “one size fits all” approach (Goyal, 2012; Jensen, 2004; Kohn, 2000; Sahlberg, 2010). These findings, although not new in anyway, serve to create spaces of permission and by this I mean, spaces that support more teachers, students, school administrators, and other educational stakeholders to co-create and to co-explore more often, the kinds of learning experiences and conditions that the participants in this study have identified as formative.

Two surprising preliminary findings did emerge however, from the questionnaire data on perceived formative school-based learning experiences. First, I was alerted by the extent to which participants highlighted specific class discussion(s) as one of the most formative

learning experiences in their schooling career. Nearly a quarter of participants (24%, or 8 of 34) shared the profundity of a particular class discussion(s) in relation to their own perceived sense of eco-civic leadership and/or of student agency; more pertinent to this study, in 87.5% (or 7 of 8) of these cases, the identified class discussion(s) took place in an elective course that was dedicated to “justice & change,” “global change,” “climate change,” “cognitive thinking and social change,” and/or broader relevant areas of study, including: sustainability, critical thinking, problem solving, and/or environmental leadership. Of significant notice, the concept of ‘change’ was clearly a prominent theme across these identified courses and an area of study deemed of critical value by these youth. Often such topics of study and/or issues are perceived, within formal schooling at least, as peripheral, tangential, or in tension with Ministry curriculum and/or school board/district strategic priorities. These findings suggest that we might need to rethink and perhaps reposition their relevancy in schooling and learning. Such topics and courses as those noted above should be compulsory, as opposed to electives at best, or a single class discussion.

Second, I was surprised by the degree to which participants (20.5 %, or 7 of 34) gave a response that dismissed (any) school-based learning experiences as having any significant impact on their perceived identity, and/or capacity, as an eco-civic leader. One participant framed such a dismissal in the following way:

Honestly, I don't think I experienced anything in school that triggered my love of the environment or my desire to want to make a difference in the world. It was out of school that I learned more to be a leader.

Interestingly, this participant, along with the other six youth who held a similar stance, was incredibly active in his respective school with regards to environmental action (i.e., “establishing a paper recycling program,” “presentations to hundreds of schools” on climate change, “launching a ‘green for 10 days’ initiative,” etc.). Yet he did not perceive those

experiences to be of critical importance in his own development as an eco-civic leader. Despite being high academic achievers (based on TEDS criteria) and actively engaged in environmental leadership roles and/or EE-related initiatives in their schools, a fifth of the youth participants in this study did not hold a view of formal schooling as being of contributive value in their development as “someone who has been identified as an eco-civic leader,” as stated in the online questionnaire. Noteworthy, was this particular youth’s response:

At school, I regularly feel restricted to express my creativity or to simply think outside of the box... Our educational system doesn’t empower students to take action; it’s an institutional structure that offers little guidance on how to carry a sustainability mindset into a future career. Thankfully, it seems as though this trend is changing.

Against the backdrop of the above quotation, if out of these 34 youth, 94% are choosing paid and/or volunteer work that has an environmental and/or sustainability focus, and 47% of the 88% who are currently enrolled in postsecondary education have pursued specialized studies relating to environment and/or sustainability, it would seem that what is of significant importance to these youth (i.e., “empower student to take action” as stated by the participant above) is not necessarily perceived (at least by them) as having the same value by other stakeholders and decision-makers within the public education system. Such a stance reverberates beyond the youth in this study as evident in the recent open-source, youth-led, innovative work being done at redesignschool.com. The contributors to the *redesign school project* suggest that a central priority for our education system should be, as they put it: “figuring out what matters most [to students], matters most.” The insights from the youth in this study, and further backed by youth such as those spearheading the *redesign school* movement, suggest to practitioners, researchers, and education system leaders that peer learning and leadership opportunities, specialized interdisciplinary programs,

pedagogically progressive approaches to learning, knowledge on and about (making) change, and using community as the locus of learning (as opposed to the classroom) should not be deemed by the “system” as: ‘extra-curricular,’ ‘specialized,’ ‘alternative,’ ‘optional,’ ‘tangential,’ or even ‘radical;’ rather these insights offered by youth should be embedded in whole-system praxis.

In listening to the experiences, stories, and insights of these youth, a demonstrated re/imagining of “how schooling should be done” was evident. Suggestions put forth freely by these youth resonate with several key elements of what recent EE policy documents outline in the form of recommendations (i.e., Ontario, 2007). For example, youth insights address: adapting curriculum, building teacher capacity, expanding site(s) of learning, building environmental awareness into school culture, involving members of the broader community in EE, and providing experiential learning opportunities. The Ontario Ministry of Education goes on to refer to such recommendations in the policy document as a “whole-system responsibility” (Ontario, 2007, p. 11). As Sterling (2001) accurately asserts: “educational systems need to engage in deep change in order to facilitate deep change” (p. 15). Throughout this study it became clear that these particular youth were advocating for the same call to action being put forth by Schumacher. That is, “if still more education is to save us, it would have to be education of a different kind; an education that takes us into the depth of things. (1973/1999, p. 61)

Community-based Learning Experiences

In examining the other central Big-N theme of community-based formative learning experiences, two emergent subheadings as noted earlier were identified: 1) local learning experiences; and 2) global learning experiences (see Appendix Z). There existed an expressed range of local and global community experiences that the questionnaire youth

perceived as formative in their development of student agency and eco-civic leadership.

With respect to global learning experiences, four main subcategories emerged, including: a) participation in international youth summits/forums (i.e., Youth delegate at United Nations (UN) Climate Change Conferences, delegate at UN Youth and the Post-2015 Development Agenda, etc.); b) global youth education programs (i.e., Students on Ice, Free the Children, Impossible 2 Possible); c) member of international networks & conferences (i.e., Youth Arctic Coalition); and d) international travel, volunteering, and/or interning.

For a few youth it appeared to be the (trans)formative impact of a particular global experience (i.e., the awe factor of Nature) that served as a major catalyst to their perceived emergence as a young eco-civic leader; a feeling best described by the following student:

In January 2012 I set out on the opportunity of a lifetime to take part in an expedition team to Antarctica with Students On Ice to learn firsthand about the impact of climate change on the Polar Regions. I was exposed to the harsh reality of an ecosystem in crisis due to the actions of humans in far away countries making decisions without considering the consequences. The power of Antarctica's pristine beauty and the incredible individuals on the expedition team has been a key factor to my current identity as an eco-leader.

Another youth also spoke of a global internship experience as (trans)formative in his thinking as a young eco-civic leader. However, his experience was not about the 'awe factor' as in the above example, but rather about an immersive experience to better understand the complexities and process of change. He stated:

A 4-month internship with EWB Canada working in Malawi in the agricultural sector had a massive impact on my perceptions of environmental and sustainability issues and how these issues intersect with poverty, societal power dynamics, human health and so many more areas. This experience exposed me to the complexity of sustainability and how strong and trusting relationships with actors involved in these systems are the basis for change.

The varied global experiences identified by these youth as formative in their development of student agency, either served as catalytic moments that motivated initial interest or one's

path as a young eco-civic leader (i.e., making the issues personal), or that fostered a deeper understanding, engagement, and investment in making change.

With respect to local community-based experiences that were identified as formative by the youth in the questionnaire portion of this study, several categorical groupings emerged across their responses. These included: a) initiating/leading a community eco-project; b) leading a community eco-project as part of broader network; c) participating as a member of a community council/steering committee or board of directors; d) participating as a member of an environmental learning community; e) being a peer leader/educating younger children; f) general community volunteering; and g) spending time in nature. The data revealed that for the majority of youth, student agency development was less connected to one particular global experience and more connected to the critical role local community-based learning experiences play in terms of knowledge, skill, process, and network building as essential elements in their capacity to effect change. One student, in speaking about her work with the True North Community Cooperative³⁰ demonstrated the above perspective. She shared: *“This project has allowed me to take initiatives that I want to put in place and have a place to filter them through to make them a reality.”* Similarly, another youth spoke about the profound impact of her local volunteer work with POWER Halton and the Halton Peel Biodiversity Network in teaching her: *“a lot about how change is created in society.”* She went on to share: *“this work taught me more in-depth about environmental issues, but also current efforts to provide solutions, and the challenges faced by organizations trying to create change.”*

³⁰ The True North Community Cooperative was described by the youth participant as such: *“it is a not-for-profit organization. It builds resiliency through a cooperative structure that provides a market for producers (food and crafts) to sell their goods at a fair price. It also allows a forum to provide education to the public on local, healthy food, as well as issues in northern communities around food security.”*

The majority of youth in the questionnaire portion of this study felt that it was largely through immersion in local community work, and in witnessing and/or participating in a learning process oriented at change (be it political, social, economic, environmental), that they developed most fully as young eco-civic leaders. Furthermore, despite the range of these identified community experiences (be them local or global), two central commonalities were noted. First, the majority of youth spoke of the importance of being part of a network, alliance, and/or learning community in their development as a young eco-civic leader. Second, many of these same youth expressed disappointment, and/or frustration, that more opportunities were not created within formal education for students to better understand and learn about the communities in which they live, including how to better participate in community processes aimed at change. The most poignant of the youths' responses that conveyed this viewpoint was, noteworthy in full, as follows:

I sincerely wish and advocate for education reform in schools to develop globally conscious citizens. It's a shame how so much of my time outside of school, the institution that is supposed to prepare me for the world, was spent figuring out these essential concepts. My volunteer work has been essential to understand the community I live in. Before I got involved in volunteering, I never realized that I was so oblivious and ignorant of both the negative and positive projects going on in my community. Once again, students should be educated to become key role players in society as they are growing up and should have such an integrated role in change occurring within society.

Beyond the above findings, which illustrate well the extent to which youth value learning experiences aimed at actively engaging them in community processes focused on making sustained change, also of distinction was the range of interpretations regarding change (i.e., what kind of change & how to make change). There was evidence of this in and across the youths' collective responses. Such a spectrum seems to echo earlier questionnaire findings noted in the above sections titled: "perceptions of change." A mature illustration was offered by the youth participant (quoted above) who had experienced a 4-month

internship with EWB Canada in Malawi. He spoke, unprompted, about the process of change, and the value of a relational approach:

The work I'm doing currently is looking to bring behaviour change not only in specific markets in Kenya but also among my colleagues in regards to how they interact with market actors and the complex systems that encompass those market actors. This is difficult and must be done in a facilitative way - pre-determined solutions don't work and generally destroy trust rather than build it. My capacity to make change here is heavily dependent on my relationships with my colleagues as well as people who have done similar work before and have learned important lessons, some of which must be experiential to sink in. My ability to draw on these resources and jump forward with my colleagues based on those past experiences and learnings of my team are crucial to the change management process.

This youth represented only one of two that demonstrated a deep(er) understanding of how to effect broader social and system(s) change. The other youth was the one who was actively engaged in the True North Community Cooperative, as referenced in earlier quotations. For the majority of the remaining youth, when they identified formative community-based learning experiences, their shared insights focused more on the value of youth having the opportunity to observe, and/or experience firsthand, current committee and decision-making processes in communities; for these youth, what they ascertained as of importance was more about *participating* in local eco-civic action (i.e., learning spaces for youth to participate in community processes), and less about, at least in comparison to the two particular youth identified immediately above, categorically effecting broader social and system(s) change.

Overall, the youths' responses regarding formative learning experiences have put forth important recommendations that speak to both pedagogical and schooling design, findings that will be discussed in Chapters 7 and 8. However, the youths' responses to formative learning experiences also reinforced the earlier finding of an identified spectrum existing with regards to youths' perceptions on the locus of change and action. Collectively, their insights contribute to what could be described as a continuum of student agency,

indirectly affirming the rationale behind the development of my preliminary framework. I now return to this conceptual framework first put forth in Chapter 3 (see Figure 3 and Appendix H) as a means through which to analyze the overall findings from the questionnaire data.

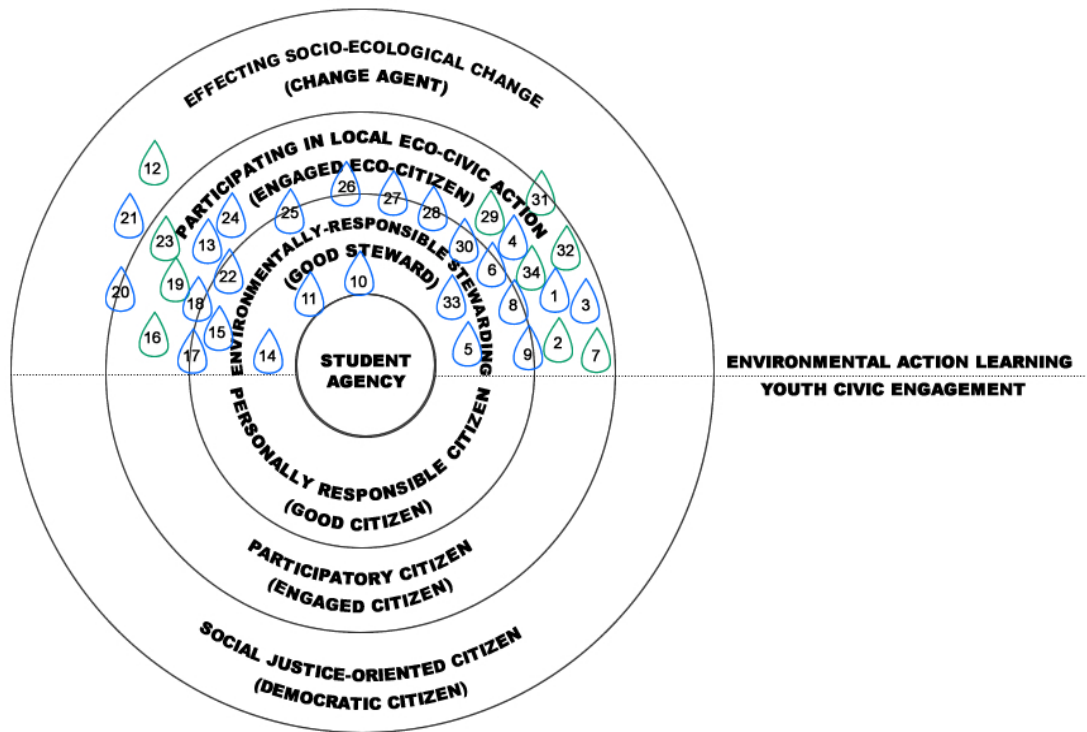
Interpreting the Questionnaire Data in Relation to my Conceptual Framework

After this first method of data analysis, I was curious to see where each of the 34 youth, based on their questionnaire responses, fell on my conceptual framework. How did their individual perceptions of student agency and the related elements of perceived identity, capacity, and change as a young eco-civic leader, along with the formative learning experiences they chose to share, situate them on my framework? Based on my interpretation of the data and my use of “key codes determined on a priori basis” from my research questions (Bloomberg & Volpe, 2008, p. 98), I plotted the 34 youth onto my conceptual framework. I acknowledge that these findings are interpretive; they reflect my understanding and portrayal of where these youth are currently situated with respect to their thinking and actions in relation to student agency and perceptions of change. Also, to reiterate, although my conceptual framework was informed by civics education theory and particularly the work of Westheimer & Kahne (2004), my intention was to interpret these findings in the context of environmental action learning; in turn, I have placed all 34 participants within the upper hemisphere of the model.

As Figure 6 below reveals: 50% (17 of 34) fell within the spectrum of *environmentally responsible stewarding* (i.e., individual acts of stewardship including school-based action initiatives, such as recycling programs); 44% (15 of 34) fell within the spectrum of *participating in local eco-civic action*, with the aim of collective behavior change (i.e., organizing community awareness-raising and/or social action projects, such as

establishing community gardens with local food programs); and 6% (2 of 34) fell into the spectrum of *effecting socio-ecological change* (i.e., the youth engaged in the Community Cooperative & the youth working on market change in Kenya).

Figure 6: Interpreting Questionnaire Participants' Perspectives in Relation to Conceptual Framework



These findings suggest that a gap does exist between what youth are actually learning and doing in classrooms with regards to EE and what recent trends in EE theory on environmental action learning is telling us. With the participants in this study having been recognized as being amongst Canada’s exemplary young eco-civic leaders, and half of them (17 of 34) demonstrating actions and perceptions of student agency that I have interpreted to fall within the spectrum of ‘good stewards,’ and another 44% (15 of 34) of them falling

within the spectrum of what I have called ‘engaged eco-citizens’ (or as Westheimer and Kahne referred to as “participatory citizens”), it would appear that we as EE teachers, and the education system at large, are not supporting the cultivation of ‘change agents’ as best we can within current EE praxis. Moreover, if this demographic of youth are not overwhelmingly demonstrating a strong understanding of and (some) capacity towards effecting broader social, political, and environmental change, then it is likely that the majority of Canadian youth, generally speaking, are also not. This stated, I recognize, as do youth in this study, that change takes time. Their evolving capacities and their efforts to effect change would be better measured over a longer period of time than offered through this study. Longitudinal studies focused on related research questions in the context of student agency, through an eco-civic action learning framework or others, are needed. Findings from such studies would extend and strengthen the conclusions drawn from this one particular study.

Furthermore, considering the majority of this sample of highly engaged eco-civic youth are pointing to community-based experiences as the source of their most formative learning with regards to developing agency, teachers, and school boards, efforts to incorporate environmental action learning into the curriculum and overall school culture are falling short in teaching youth “how to make change.” Beyond capacity building, if this intentionally unrepresentative sample of youth are largely interpreting change in the context of individual behaviour and personal actions (i.e., “I am the change;” “my actions make a difference”), it is likely that the *representative* majority of Canadian youth in public schools hold a similarly perceived egocentric stance, at best. Developing an understanding of and capacity for broader change in the social sphere is not part of, at least not yet, how EE is

being taken up in Canadian schools, despite the promising language of recent policy documents.

In moving ahead, the interview phase of the data collection enabled me to engage more fully in the research questions and in turn, to examine the validity of these preliminary findings in relation to my conceptual framework. Important to note, the 10 green markers (as opposed to the blue) on the above framework identify the 10 questionnaire participants who went on to engage in an interview. Throughout my analysis of the interview findings, which will be presented in the next chapter, I was fully open to the possibility that some of my initial interpretations of where these 10 particular youth fell on my conceptual framework might shift. In turn, I was also aware that my “taken-for-granted assumptions and beliefs about the processes and phenomena” that I had been investigating would be challenged (Bloomberg & Volpe, 2008, p. 132).

Summary of Key Findings from Questionnaires

Beyond the preliminary finding of only 6% (2 of 34) of the participants interpretively falling into the *effecting socio-ecological change* spectrum on my conceptual framework, the central overall finding from this first set of data was the degree to which a majority of youth (56% or 19 of 34) perceived change in the context of individual behavior, attitude, and personal action. Although important attributes, we know through social movement and organizational change theory, that social change, generally speaking, does not happen by individuals. That stated, there are several historical and contemporary examples of individuals whose lives challenge this statement and rightfully so as their lives and life work have served to catalyze the currently popular, Gandhi-inspired mantra, “be the change;” along with Gandhi, such individuals, for example, include Rosa Parks, Martin Luther King, and social entrepreneurs such as Muhammad Yunus or Wangari Maathai. Although it is

possible for the locus of change to be within the individual, as demonstrated by the lives of the above individuals, we know that long-term, sustained change comes from the collective and the social spheres.

Despite this highly individualized lens on change with regards to eco-civic leadership, as perceived by the youth participants in the questionnaire data, there was at the same time, a demonstrated reaching out(side) of school learning experiences, and into community, for learning opportunities that echoed similar sentiments shared by the young Canadian page who disrupted Prime Minister Harper's Throne Speech (see quotation in Chapter 1). Across the questionnaire data, there was an expressed desire by these youth 'to learn how to make change.' Collectively, the students valued the development of this capacity or, at the very least, in building a better understanding and awareness of the process to do so. Despite the individual lens, a majority of these youth (56% or 19 of 34) also acknowledged the importance of engaging in a network, alliance, and/or learning community, often identified as intergenerational in scope, for motivational, relationship and skill building, and broader impact purposes. Although they articulated a very individual perception of change and agency, the youth participants also, at the same time, demonstrated an awareness of and an appreciation for a more relational approach to eco-civic leadership and change-making. These introductory findings, and the possible explanations for and tensions between, served as central checkpoints for cross-analysis as I continued onwards through the focus group and interview data.

Focus Group Findings

In one of the century old, beautifully patina, stone buildings on the University of Toronto campus, 15 of us in total, including myself, met for a 90-minute focus group that was titled: "*PhD Action Research Focus Group: Exploring the development of student*

agency with young eco-civic leaders in Canada.” This session was one of dozens that occurred simultaneously as part of Earth Day Canada’s Beyond Green (national) Youth Summit, an event attended by nearly 1000 youth across Canada, ranging in age from 14 to 30 years. As outlined in the methodology section, the attendance make-up of my focus group included: six high school students (ages 14-18); four university students (ages 19-late 20’s); and 4 young professionals (approximate ages between 25 and 40). For the purposes of this study, I only included the data of eight youth in attendance, all of who aligned with my research criteria.

Three questions framed the focus group sharing circle experience. The first go around was guided by the following question: ‘what is your relationship with environmental or eco-civic leadership?’ The participants’ responses offered similar insights as shared by the questionnaire youth. They collectively spoke of their involvement with, or roles within, school environment clubs, local or provincial community environmental youth networks (i.e., Whitby Environmental Youth Alliance, Ontario Nature Youth Council, etc.), environmental and/or social change NGOs (e.g, David Suzuki Foundation, Free the Children, Earth Day Canada, We Canada, etc.) and/or provincial or national youth leadership programs (i.e., Ontario Student Leadership Conference, Youth Leadership Camp Canada, etc.). Beyond these roles, several spoke about their relationship with environmental leadership in the context of their “passion for” and “interest in” environmental issues, as well as conservation. A few of them also spoke about their “connection to nature” from an early age as a “key motivator” to their engagement.

The second question had three parts and focused on their respective perceptions of identity and capacity as a change agent (i.e., what is a change agent; would you call yourself one; how do you perceive your own capacity to make change). Many of these youth held an

egocentric perspective with regards to this set of questions (i.e., “*I have the passion,*” “*I’m a leader just because I’m really interested in that stuff (environment),*” etc.). Again similar to the questionnaire responses, there was also an identified relational component to their perceptions on change and on making change. One youth spoke about the need to “surround yourself by it” (i.e., seeking opportunities to learn and collaborate with like-minded youth and organizations), while another talked about a need to create space to “*nurture others to make them believe they can make change (too).*”

Of further interest, a few youth spoke about having the potential to be a future change agent but lacking the “know-how,” as put by this student: “*I have the passion and the drive to be a change maker and a leader but I’m not sure if I have the tools to do that.*” This response was then followed by another youth who stated:

To be like a traditional change maker I think, which I guess most of us are as leaders in our communities, you need a lot of skills and I think that every student doesn’t get the skills but they should get them from the education system. There’s just so many more skills we need to help us, like get the ability to be the change makers.

Interestingly, the student in the above quote identified ‘getting these skills’ within the civics curriculum, as opposed to any EE-related learning experience. A third youth perceived being a change agent as having a trajectory of sorts (i.e., “I think I’m on my way to becoming an environmental civic leader.”) She then followed up on this statement by critiquing formal education’s approach to teaching (and curricula) on environmental issues:

The curriculum isn’t really taking a future based approach to a lot of issues, a lot of times the lesson or the entire unit will be based around the problem and it will be based on facts and figures, but I know that like at a conference like this we get to have a lot of round table discussions and we talk about solutions and talk about positive changes we can make.

This statement was then immediately followed by a different youth who quickly asserted: *“by taking a total action-based approach to the curriculum, it can just totally change your point of view.”*

The third and final question was presented with an invitation to break free from the sharing circle format, which had entailed a piece of seal skin being passed around from person to person as they spoke in order. For this final round, participants were free to speak out randomly, building on each other’s comments. As well, they were offered chart paper and markers to ‘graffiti’ any insights, either individually or in collaboration with other(s). The final question explored in this above shift of format was: “what do you think are the capacities or skills needed to be developed in youth in order to become a change agent?”

One central theme that emerged from this final collaborative dialogue opportunity focused specifically on communication skills. A particular participant spoke about the need to learn to be *“really thoughtful and strategic in my communication;”* another talked about the need to learn to communicate in a way *“that makes us actually feel empathy for these things that our happening in our environment.”* From across the room a different youth added, *“yes, and we have to come from different viewpoints and different discourse (to do this).”* A fourth participant brought forth a broader systemic lens in the context of developing communication skills, and discussed the need to *“communicate a new narrative.”* She followed this by sharing her experience in transitioning from an *“active environmental leader”* at school to *“working in the industry where making changes that I wanted to see with regards to environmental issues, you meet a lot of resistance, like a lot, and it’s not even just resources; it’s the mindset. And that’s the hardest part about making change in the real world, it’s changing, like worldviews.”* Shifting the conversation and mindsets remained the topic of focus for the duration of the session.

The majority of the focus group participants embraced the invitation to graffiti some of their thoughts in response to the final question posed. Below is a sample of four graffiti artifacts that were produced, informally, unstructured, and within a 15-20 minute timeframe. Interestingly, less of the discussion (verbally or graphically) focused on directly addressing the question as to particular “capacities or skills” needed to become a change agent, although several specific ‘skills’ were offered, including: project development, event planning, public speaking, organization, business planning, fundraising & marketing, (social) media, networking & partnership building, evaluation & measurement, debating, empathy, critical thinking, and flexibility & resiliency; rather, more discussion, upon further analysis of the focus group transcript and graffiti artifacts, centered on two broader themes. These included: 1) the need for education to be more interdisciplinary, experiential, action-based, emergent (i.e., student centered & student-led), and community and solutions-oriented, including appreciative inquiry (i.e., “success stories of youth making change”); and 2) youth-adult relationships insofar as the need for “mentors,” for “collaboration,” for “communities of support,” for adults to “give (us) space to make a change,” and for adult support to “navigate the jungle of (youth) opportunities.”

Figure 7: Graffiti Artifacts from Focus Group



Two final observations from the focus group experience were notable. First, all eight youth participants were female. The focus group was a self-selected, open-to-all session at the conference; upon reflection, the gender representation of my focus group spoke directly to findings in the literature as previously noted, which suggest girls do demonstrate stronger pro-environmental attitudes, behaviours, and overall environmental responsibility than boys (Chawla & Flanders Cushing, 2007; Rickinson, 2001), as well as girls demonstrating higher socialization to be more other-oriented and socially responsible (Zelezny et al., 2000). The

gender observation in my study also aligned with my personal experience as a national judge for TEDS in which 17 of the 20 youth finalists in 2013 were girls. Second notable observation centered on the (mis)use of language in the context of terminology. Along with my use of the terms “environmental leadership,” “eco-civic leadership,” and “being a change agent” during the facilitation of the focus group, the participants also used in an interchangeable manner other related, although at times theoretically distinct, terms such as “global citizenship,” “active citizenship,” “civic responsibility,” “environmental stewardship,” “activist,” “change-maker,” and “social-justice leader.” The use of these varying terms was unprompted and unchallenged, but indeed noteworthy as I moved forward in analyzing the interview data.

Summary of Key Findings from Focus Group

Consistent with the findings from the questionnaire data, many of the focus group participants held a perceived identity and capacity as a young eco-civic leader in which the locus of change rested within the individual; simultaneously, several of them also identified a more relational lens to making change (i.e., the need for “communities of support,” “collaboration to drive change,” etc.); these two findings were not in contrast with one another but rather seemed to coexist. This egocentric & eco-centric coexistence was unpacked further with the interview participants (see next chapter.) Second, the need for pedagogical reform in teaching (i.e., learning to be more experiential, action-based, etc.) and a need for an overall recognition of formal education as a place to learn the necessary skills to “make change,” including opportunities to apply those skills and to actualize change in the local community, were identified. Third, the dynamic and role of youth-adult relationships emerged as a loose, but notable, theme for the focus group participants. Finally, mindfulness around gender and language was carried forward from the focus group experience to the

interview analysis process. The next chapter shares key findings from my analysis of the interviews.

**CULTIVATING GOOD STEWARDS AND CITIZENS? YES
CHANGE AGENTS? NOT SO MUCH:
Chapter Six**

On the one hand I must attempt to change the soul of individuals so that their societies may be changed. On the other, I must attempt to change the societies so that the individual soul will have a change.

(Martin Luther King)

This research asserts that the kind of environmental action learning currently taking place in schools is not cultivating ‘change agents.’ Young people are not being equipped with the knowledge and skills to effect the “long-term change in society” being advocated for in recent EE policy documents, as well as in EE theory. The above assertion represents the central finding that emerged from my analysis of the interviews. The interviews enabled me an opportunity to probe deeper on perceptions of student agency, and student agency development, with 11 youth participants, all but one of who had participated in the questionnaire phase of this study. This chapter presents my analysis of the interview findings and the insights gleaned from listening to the storied experiences and perspectives of these inspiring youth.

Through a relaxed, conversation style approach, I found the interview process to be the most engaging and informative data collection method of the three used in this study. In each interview, the youth and I talked openly, exchanged stories, posed questions, challenged each others’ thinking, made connections, laughed, and in all but two cases, carried on in discussion well past the suggested 45-60 minute interview timeframe. It was during the interviews in which I felt most grateful and privileged for having the opportunity to conduct a study with such insightful, and dynamic, young Canadians. With each interview, I focused on further unpacking each youth’s perceptions of the same analytical categories as explored

with the questionnaire data. To recap, these included: 1) identity (or not) as an ‘eco-civic leader;’ 2) capacity as an ‘eco-civic leader;’ 3) perceptions of what change means; and 4) perceptions of student agency, or how to effect change. These four categories served as analytical elements pertaining to my first research question – how do youth, nationally recognized as eco-civic leaders, perceive their own sense of agency. With regards to my second research question—what are the learning experiences or conditions as perceived by youth as formative in developing their sense of agency—I focused on examining more deeply the same two types of learning experiences (i.e., school-based & community-based) that the youth had identified as important in the questionnaire data.

My main objective with analyzing the interviews was to see: a) whether or not my preliminary interpretations were accurate (i.e., was there consistency between the two sets of data for each research participant); b) what deeper insights, if any, did the interview data offer with regards to the five key analytic categories noted above in relation to my central research questions; c) whether any new, or alternative, themes emerged from the interview data; and d) whether my preliminary placing of each of the participants on my conceptual framework still aligned after this deeper analysis.

Interview Participant Profiles

To begin, I created two interview participant profile charts based on basic background information provided from the questionnaire data, as well as on my preliminary analysis of the data. The first profile chart – Interview Participants’ Background Profile (see Appendix AA) – included details such as: age, gender, and current activities, including formal education and paid and/or volunteer work. The second profile chart (see Table 1 below) provided me with a simple checkpoint to continually reference as I probed the similarities and differences between the questionnaire and interview sets of data in relation to

my five central analytic categories of interest listed above. These respective profile charts, cut and pasted onto my research wall, enabled me a descriptive and physical anchor from which to (literally) attach any/all relevant data, insights, quotations, and/or theoretical connections for each respective interviewee. What emerged on my office wall was a clustered yet navigable mind map, forming the backdrop from which key findings and emergent narrative themes from the interview data were identified and explored. In the participant matrix below, the 11 youth interviewees were each given a pseudonym name, which was then subsequently used whenever I referenced their respective insights throughout this chapter.

Table 1: Interview Participants’ Findings Matrix

Name	Age	Gender	TEDS³¹	Identity as eco-civic leader	Capacity as eco-civic leader	Perception of ‘change’³²	Capacity to make change³³
Stephen	19	M	RSR	Strong correlation	Strong	IIOA	PLCA
Lucy	18	F	RF	Strong correlation	Strong	IABA	PLCA
Julie	23	F	RF	Negative correlation	Strong	SPSC	ESEC
Ben	18	M	RF	Strong correlation	Strong	IIOA	PLCA
Xavier	20	M	RF	Strong correlation	Limited	IIOA	PLCA
Franny	20	F	RSR	Strong correlation	Strong	IIOA	PLCA
Stacy	18	F	RSR	Moderate correlation	Moderate	IIOA	PLCA
Noah	21	M	NSR	Strong correlation	Strong	IIOA	PLCA

³¹ **NSR**- national scholarship recipient; **RSR**- regional scholarship recipient; **RF**- regional finalist; **NON**- non TEDS (but linked to Earth Day Canada through Eco-mentor program and/or Beyond Green Youth Summit)

³² **IABA**—Individual actions, behaviours, attitudes; **IIOA**—Individual influencing other’s actions; **SPSC**—Social, political, systemic change

³³ **ERS**—environmentally responsible stewarding; **PLCA**- participating in local eco-civic action; **ESEC**- effecting socio-ecological change

Anna	16	F	NON	Strong Correlation	Strong	IIOA	PLCA
Rosie	16	F	NON	Strong correlation	Strong	IIOA	PLCA
Karen ³⁴	19	F	NON	N/A	N/A	N/A	N/A

With the above participant profiles established, I listened to and read through all 12 interviews several times, each time highlighting key words, phrases, and/or small-n narratives that spoke to each/any of the five analytic categories of interest. Highlighted sections were coded using the same coding legends that I used to analyze the data from the questionnaire responses (again, see Appendix T). As noted earlier, relevant insights were then assembled on a mind map on my office wall to help organize the data into key findings and emergent themes.

Perceptions of Eco-Civic Leadership

1) Identity

As outlined in the above table, of the 10 youth who completed the online questionnaire, 80% of them strongly identified themselves as an eco-civic leader. This finding remained steady throughout the interview analysis. Similar to the questionnaire data, several of these youth's (6 of 11) strong identity was predominantly informed by an egocentric perspective. In other words, it was through an "inner conviction," "personal passion," and/or a dedicated "willingness to learn and take initiative" that these youth articulated their strong identity as a young eco-civic leader. For these particular youth, consistent with earlier questionnaire findings, the locus of change and action resided within the individual. One youth, Noah, described this "conviction" in this way:

³⁴ This participant did not complete the online questionnaire portion of this study; in turn, I did not have any findings from the questionnaire data to insert into the matrix as I did for the other 10 participants.

... to be able to be a change agent or someone who actively is trying to make a difference in the world it comes from this organic....uh, You can't actually train someone to become a change agent...ok be a change agent, this is how you do it. It has to be genuine. The young person needs to have it inside them, to say I'm going to do X...my work ethic, and sense of determination... this sense of wanting to achieve and succeed. I have that hunger in me and then you combine that with my passion for the environment and my unique experiences and the things that I have had privileges to do. Combine those elements and it is a kind of a strong force.

Another youth, Lucy, spoke of her “innate passion for nature” as the driving determinant of her perceived sense as a young eco-civic leader; “it [*passion for nature*] is at the core of me. I can't get rid of that.” For Noah, Lucy and the other four youth who identified strongly as young eco-civic leaders, they collectively held the view that their passion, motivation, and initiative can and does make a difference.

For the remaining five interviewees, their shared perceptions on eco-civic identity was interpreted less from an individualistic stance, and more in relation to other people, to being part of a “community” of eco-civic leaders. One of these particular youth, Anna, described her self-emergence as an eco-civic leader as a matter of happenstance—a connection that changed her life course. As an avid and passionate science fair participant, she was convinced by grade seven that she wanted to do a PhD in microbiology (following in her mother's footsteps). Upon meeting an adult who took interest in her science fair project, and in her broader ideas around sustainability, she pursued his suggestion of contacting a sustainability-based organization in her community. Now after months of volunteering for this organization, and being embedded within a community of “like-minded folks,” Anna reflected on her emergent identity as an eco-civic leader in this way:

Once you've done something [that] you can't imagine yourself doing anything else because that is what you believe in and what you love... that's when you start to become part of these networks and that is the way you start to essentially become part of society and not just this cloud [reference to her science fair world] ... it is where you come to land, where you are mixing with adults...

It was through finding and becoming part of this intergenerational community of people where Anna came to identify as a young eco-civic leader.

For another participant, Xavier, his sense of self as an eco-civic leader derived from his founding of a community bike coop in Montreal; although unlike Anna above, his sense of belonging stemmed from a resistance narrative—an effort to disrupt the privilege of which he was part. He described it in this way:

I acknowledged at a very early point the privileged situation I was in. I identified things that I didn't like about the school [reputable private school] I was in: the materialism, the desire to become rich and or famous. I really fell in love with the concept [community bike coop]; it was cheap, it was 15\$ a year, the people there were so cool. I would have been going there just for the fun of speaking with the people and helping out the others with whatever I knew. It really felt like a nice community to be in.

Although rooted in a space of resistance, it appears that Xavier's passion for and commitment to socio-ecological change aimed at equity and well-being, blossomed into his finding of a sense of belonging; in other words, in seeking a like-minded community he developed a capacity for, and sense of self through, active eco-civic engagement (i.e., founding a bike coop).

This notion of a sense of belonging was also very prevalent in another youth's perspectives on eco-civic identity. Franny spoke of how “wonderful” it was to no longer be “that weird kid.” In describing the Living Learning community at her university of which she was part, she shared:

And I would go down for dinner and we'd talk about things from global warming to child labor to like all these really important social justice issues where I used to just be that weird kid in high school and no one else was quite as interested as I was in that sort of stuff and here I was chatting about those important things over dinners and that was wonderful.

For yet another student, Karen, her sense of eco-civic identity was rooted in her primary identity as an artist, and the community of artists of which she was part. She interpreted art as a medium through which she could create and hold space for her peers, and citizens at large, to engage in the tensions and complexities that often accompany the addressing of environmental and social change-oriented issues. Karen perceived herself (and artists in general) as a bridge between the “scientific body” and the general public as described in the following way:

I really do feel there is a huge divide between what we are producing [artists] and what we know as a scientific body and what the public generally actually understands and I think that is a huge topic that can only be addressed by people who can straddle both worlds...and I feel that is me.

Karen’s perspective reminded me of the words of Canadian social entrepreneur and clean energy author, Tom Rand. In speaking about climate disruption in relation to a United Kingdom-based “science meets arts” Program called *Cape Farewell* Rand had this to say:

Cape Farewell’s mission doesn’t lack ambition. They want nothing less than to change the zeitgeist and embed a response to climate disruption into the very genes of our culture. The idea is simple: scientists, brilliant as they may be in understanding the inner workings of the world, are terrible communicators. It’s the artists who tell the stories that linger, sing the songs that can lift our hearts, and make the pieces of culture that last through the centuries, so put artists and scientists together in an environment that makes them think, share, and interact. Let the scientists inform the artists, and have the artists inform the world. (2014, p. 79)

The perceived identity of this ‘bridge-building’ youth artist, along with the expressed perceptions of her peers (i.e., Anna, Xavier, Franny) who spoke of eco-civic identity in relation to others, suggest, through further examination, that a shared valuing of communities, networks, relationships, and/or connections with others is a critical element of identity building for a sizable number of participants (45% or 5 of 11). However, at the same time, most of these youth throughout the interview experience, positively correlated some

highly individualized traits such as personal ‘passion,’ ‘interests,’ ‘motivation,’ ‘determination,’ and/or ‘sense of risk’ as also important elements to their identity as a young eco-civic leader. Despite their relational and community-oriented perceptions of identity, they did offer insights that, similar to the questionnaire data, also supported the more individualistic mindset of the initial six participants discussed in this section. On a collective level, once again, there was a demonstrated co-existence of both an *egocentric* and *eco-centric perspective* of identity. On the one hand, as an example, a participant shared: “it is my intrinsic motivation, passion, interests, and determination that make me an eco-civic leader” (i.e., egocentric). While at the same time, several of these youth including the one above spoke about the importance of being a part of a community and feeling a relational sense of belonging (i.e., eco-centric) as necessary in cultivating, or perhaps legitimizing, a perceived sense of eco-civic identity. I will further explore this reoccurring theme in the following pages.

For the two youth who did not perceive themselves as having a strong eco-civic identity (1 moderate; 1 resisted), there was still evidence of this co-existence between egocentric and eco-centric thinking, as outlined above. For Julie, the youth who resisted the term eco-civic leader, she self-identified as a “community facilitator focused on building resilient communities.” Her relational worldview and valuing of the collective as the locus of change and action were strongly evident, more so than with any other interviewee. These are her words:

Yea, well I think really the only way we’re going to create change is through building our communities, and we have to have this community-based approach because then you can look at all these different sides of the issues and how they affect people around you; we’ve managed to integrate all these things into a vision of what we want our community to look like.

Furthermore, in commenting on the problematic nature of language, she went on to give a mature and important argument regarding the sustainability movement in general public discourse and why she feels, in turn, that we need to focus on [building community] *resiliency* instead. Her response is noteworthy in full as it demonstrates the depth of her thinking:

I use resiliency because I think sustainability has lost its meaning. We have a lot of these words that become jargon, and over time I'm sure resiliency will lose its meaning too and it's going to become jargon. And I don't like having those as part of my language because as soon as you use them people's misconceptions come into them. And so when you say sustainability I think immediately people think green, they think ecological sustainability, I don't think that a lot in the general public when people say sustainability they think of the social sides and economic sides. And so I don't think it has the same connotation of strength that resiliency has. And to me that's what resiliency's about, it's having strength in our environment, in our communities, in our economies so that when changes happen, because they will, because of climate change, because of changing economies, because of whatever, there's flexibility there to react to it.

Julie, the above youth, was 1 of only 2 of the 34 questionnaire participants that I interpreted as falling into the outer spectrum (i.e., effecting socio-ecological change) on my conceptual framework. As a result, I was particularly keen to probe her perceptions on identity, capacity, and change as an eco-civic leader as fully as possible. In doing so, some tensions for me, as researcher, did emerge in her responses. Despite her dedication to, and knowledge of, community-based approaches to engagement and change, including her acknowledgement of the “importance of consensus-based models,” it was interesting how she perceived to position herself when describing how she interprets her identity as a ‘facilitator,’ as opposed to a ‘leader.’ In her words:

I'm very careful to use that word because that makes you an equal agent with everyone else. And I think that's really important when you're doing these types of things is to understand everyone as equal agents... when I am taking a leadership role, I very much think of myself as somebody who's in the center of this project and I'm taking all of the people's strengths from around me and figuring out how to mutually engage them in what I'm doing. And so in that way, yes I'm leading what is

happening but I'm also facilitating something that everybody else is contributing to and I'm just putting the pieces together.

It is clear, based on her description above, that she, despite identifying herself as a facilitator, perceives herself “*as taking a leadership role*” with the aim to “*mutually engage them [group members] in what [she's] doing.*” This tension between ‘facilitating’ (as equals) and ‘leading’ continued as Julie went on to speak about leadership and control:

That's something that I think I struggle with, especially as a leader I think I get a picture in my head that it's the way I think things need to look at the end of it and it's usually unrealistically high. I need to, a) communicate that very clearly to other people, and b) I need to be realistic of what everybody else's abilities to input and what their intentions are in being there. So it's still something I kind of tug with.

Although Julie does not identify as an eco-civic leader, it is obvious that the focus and scope of her work does align with how I, as researcher, am interpreting eco-civic leadership. However, the critical insights gleaned from Julie's responses help to bring forth an understated point; as she continues to experientially explore [to her credit] and “tug with” the subtle tensions as to the role of the individual (i.e., facilitator or leader) in a more community-oriented, consensus-based, and shared leadership model, her perceptions reveal a lack of a formally learned understanding of the interplay between ecological/relational thinking, leadership, agency, and social change. Schooling, as noted previously in this thesis, is modeled by a highly individualistic or egocentric worldview, a lens that is referred to elsewhere in other fields (i.e., organizational change) as “egcosystem thinking” (Scharmer, 2010). However, as current EE policy and praxis advocates for students to become “active citizens” and “to effect long-term change” (Ontario, 2009, p. 11), and assuming ‘long-term change’ means broader social, environmental, political, and system(s) change, then developing pro-environmental attitudes, behaviours, and actions through a systematic lens in which learning is widely focused on the *individual* (i.e., student success, student

achievement, character development, etc.) will simply not get us there. In attempting to accommodate the policy objective³⁵ of developing “change agents” capable of “effecting long-term change,” in a system rooted in post-positivist thinking and one that measures success by ‘individual’ units [i.e., each student], represents a critical blind spot requiring further discussion and research.

Julie’s case, I would suggest, offers a living example of what DePape, the young Canadian parliamentary page referenced earlier was referring to; that is to say, that while young people are not being taught “*how to make change*,” they are “*finding and often making ways to learn to be effective activists, whether through trainings or real life experiments*.” Julie may not have been taught formally, or pedagogically, how to make social change but she is certainly learning how to do so experientially under her own initiative (i.e., building community resiliency through cooperative models). Furthermore, in doing so, Julie is proving Wheatley’s assertion to be correct (see closing quotation of Chapter 3); Julie, as Wheatley suggests, is *already practicing the solutions*. Within the education system, we need to move beyond an understanding of active citizenship as developing individuals with ‘good’ eco-friendly behaviours and attitudes (i.e. individuals driving change through individual actions), and move towards developing in students thought leadership and skills to actively and effectively participate in the necessary societal shift towards more community-oriented, consensus-based, and shared leadership models aimed at socio-ecological change, much reflected in Julie’s inspiring efforts.

Through a deeper analysis of the study, I argue that some of these youth participants (albeit some more explicitly than others) are experientially experimenting with, and self-

³⁵ Exemplified in the Ontario Ministry of Education’s (2007), *Shaping Our Schools, Shaping Our Futures*, EE policy framework document, as referenced throughout this thesis.

organizing around, the notion of ‘communities of practice’ (Jonassen & Land, 2012; Wenger, 1998). These youth are seeking and/or creating opportunities, largely beyond formal schooling, to further explore and develop collaborative skills and relational thinking aimed at community-based, socio-ecological change (i.e., founder of a bike coop; engaged member of a northern community food coop; member of a living-learning community; member of an environmental, social entrepreneur learning hub, etc). This finding of youth experimenting with, and seeking, modes of what I maintain are evolving youth-oriented (but not exclusive to) ‘communities of practice’ is an important one. This idea will be explored more deeply in Chapter 7 focusing on emergent narrative themes, as part of a discussion of the overall study findings.

In summarizing the key findings from the interview data with regards to youths’ perceptions specific to eco-civic identity, two noteworthy points exist: firstly, and similar to the questionnaire data findings, the majority of youth (55% or 6 of 11) positively correlated eco-civic identity with individual personal traits such as motivation, interests, and passions; and secondly, at the same time, almost half (45% or 5 of 11) acknowledged the importance of seeking, engaging in, and/or creating a network, learning community or as I have demonstrated, communities of practice (intentional or not) for relationship and skill building, and for broader change-oriented impact. Although the interviewees collectively articulated on the one hand, a very egocentric perception of identity, half of the youth participants, at the same time, demonstrated an awareness of and appreciation for a more relational, eco-centric approach to eco-civic leadership. This coexistence of egocentric and eco-centric perceptions of eco-civic identity, and the idea and role of communities of practice are central findings, both of which will be discussed further in Chapter 7. In moving ahead, I then turned to

examine the interview data through the remaining analytic categories of interest: a) ‘capacity;’ b) ‘change;’ and c) ‘student agency.’

2) Capacity

The findings from analyzing the interview data with regards to youths’ perceptions of their capacity to make change in society strongly correlated with those from the questionnaire data, in which: 73% (25 of 34) expressed a strong belief in their capacities; 21% (7 of 34) expressed a moderate belief; and 6% (2 of 34) expressed a limited belief. Furthermore, the interview findings also overlapped significantly with the above section’s findings on perceptions of identity insofar as to the extent to which these youth associated individual behaviours and attitudes (i.e., passion, interests, motivation, etc.) with their capacity to make change in society. This idea was demonstrated in such statements made by the interviewees as: *“I feel that everyone has the potential and is a change maker by the choices we make and the opportunities that we get involved with;”* or *“I genuinely feel that anybody can make a difference if you have enough passion and enough motivation and you have support.”*

Beyond such statements that speak to an intrinsic belief in youths’ capacity to make change, I was keen to listen if other insights on capacity were shared. Three additional thematic perceptions emerged. First, several of the youth spoke about the need to be surrounded by support. As with the youth who spoke about support in the quote directly above, she went on to share: *“Sometimes it takes a little bit of organization and I feel where older people or experts come into hand is just like organizing thoughts.”* For a different youth, Xavier,³⁶ his valuing of support as an essential element to his perceived capacity to make change was described in this way: *“people who have ideas and very enthusiastic and*

³⁶ French was this youth’s first language. Our interview together was conducted in English.

want to realize maybe a project maybe similar to what I started [bike coop], if they're not surrounded by the right resources, by people [like I had], it's very hard." A third participant, Stacy, spoke about support more subtly, in this way: "if you're by yourself you might have a lot of good ideas but there's always something someone else can bring to you, whether that's through mentorship or partnership or a just like a casual conversation with someone." For Stacy support was necessary in order to further develop and extend her capacity for change, whereas with the other two examples above, support (from adults in particular) was necessary for translating one's ideas into action.

This need for support as expressed by the youth, directly relates to the 'communities of practice' finding highlighted in the above section. As the communities of practice literature demonstrates, "it is natural for people to seek out those who have the knowledge and experience that they need" (Wheatley, 2005, p. 172). These youth, in seeking the knowledge, skills, and support that they perceived as needing in order to (better) effect change self-organized to locate such people in their communities. Establishing relationships and engaging in collaborative learning experiences of various kinds enabled many of these youth to find the support of which they were seeking.

A second common theme emerged amongst several participants—the notion of real change being long-term. In other words, one's capacity to effect change was directly linked to how one perceived change itself (i.e., personal behavioural change versus long-term sustained change); the correlation being that if someone perceived change to be more long-term, then one's capacity to effect change was more limited. For Lucy, she humorously acknowledged youths' tendency to want to "get this done right now" and the need for youth to "preserve the energy so [they] can see it through." As Lucy went on to share: "things are a little bit slower once you get out of high school, policies take time, governments take time."

Along with the “right now” quality inherent to youth as described in the above quotation, another participant, Stephen, spoke to the tensions between the idea of youth being reward sensitive (i.e., instant gratification) and change being more long-term (i.e., “seventh generation thinking”). Noteworthy in full, Stephen described this tension as such:

....a degree is usually around 4 years, um, it takes more time to make change (long pause) big change on a scale that if you compared it to the scale we did at high school [making a school greenhouse], it would take more time. The people jumping in, the people initiating this, they wouldn't be developing the projects that they would see to fruition. They would be developing the infrastructure that 5 maybe 10 years down the road would see projects come to fruition. For a person like me... I'm going to say it's hard...that's the tough thing, in high school we were able to develop projects that were conceivably finishable by the time we spent in high school... So that process, you could be around to see the change, be part of the change. Here you have to buy into that long term, kind of seventh generation thinking.

A further layer to the theme of change being long-term, and thus a perceived limiting factor on youths' capacity to effect change, Rosie spoke directly to the challenges presented by youth being a very transient demographic in the context of her own perceived capacity as a community change-maker: “because I'm in grade 11 now, next year's grade 12, and realistically I will be going off to university afterwards and I might not be in this region anymore and I really didn't want to get something started that's going to dissolve after I leave.” Social change is long-term sustained change as articulated by these youth; in turn, their insights as to some of the challenges youth face in engaging in the process of such change affirms what research elsewhere tells us (Clarke & Dougherty, 2010; Ho, 2013).

A third and final theme from the interview data with regards to youths' perceptions on their capacity to make change had to do with what I refer to as ‘entry points.’ I am using and interpreting the concept of entry points through a systems thinking lens. As Cloud (2005) outlines in an article focusing on exploring systems thinking concepts for

environmental educators, her simplified explanation of entry points is a useful definition for my purposes here. She states:

A system is made up of two or more parts that interact with one another over time. Systems are “nested” in other systems. A relationship, a body, an engine, and a rainforest are all systems. A system is not linear, rather it is more weblike. It is dynamic, there is no one way into a system... there is no “right place” for an entry point. There is no hierarchy or preferred sequence for an entry point—no “first here and then there.” (p. 226)

Based on Cloud’s definition above, several youth participants (55% or 6 of 11), when speaking about their capacity to make change, offered insights that highlighted a deeper understanding of how to effect more sustained, systemic change as a young person. Rosie spoke about wanting to secure a youth representative with recognized decision-making powers (i.e., youth with voting powers and “real influence” not just “tokenistic” youth voice) on various sustainability-focused town councils. Anna, in identifying a need to “*get involved not just at the community level but to reach out on a bigger level,*” spoke about her recent experience of writing a policy paper on “youth and the post-2015 development agenda” that was selected to be presented at the Commonwealth Youth Forum in Sri Lanka in November 2013.³⁷ As we explored the value of youth engaging in international policy as a critical entry point for making broader systemic change, Anna shared how “*awesome*” it felt to share her thinking and ideas at that level. With permission from Anna, below is a noteworthy excerpt from her policy paper with specific regard as to how public education is falling short in supporting the development of student agency:

School is a unifying base for diverse youth and is therefore a key player in providing tools to equip these creative minds to fight their cause, their passion. In current education systems, however, often this creative potential is lost. The millennium educational goals have miserably failed in terms of “effective, equitable

³⁷ Anna’s writing of this policy paper was a result of a contest she became aware of through the *Canada Youth Think Tank*, a group of students interested in producing written articles on public policy and events in Canada and worldwide. See <http://canadianyouththinktank.ca>

and meaningful education.” Current education curricula do not offer youth the knowledge, skills and values required to become active, responsible and informed citizens.

Similar to Anna above, a second youth spoke about engagement in international policy as an effective entry point for youth to effect change. Noah, who has been heavily engaged as a youth delegate in the United Nations Climate Change Conferences (UNCCC) over the past 3 years, has reflected deeply on the impact of his efforts. He acknowledged the importance of youth recognizing that the UN, although a “*big bureaucracy*” is essentially “*made up of people*” and that youth need to “*directly insert [themselves] into the process and contribute to the process.*” Noah went on to speak about the need to be strategic, organized, and effective in engaging large numbers of youth in policy processes. In speaking about whether his Rio+20 experience “had impact,” his response affirmed the depth of his understanding of how to effect change as a youth at a policy level:

Before the conference...when we were engaging our friends and communities, letting them know that we were going to Rio+20, to speak up to politicians and leaders about issues in the polar regions, we did presentations to over 2500 youth across Canada over a 1 month period; we produced a recommendation paper over the span of 5 months with our own peer-review process. Presentations made a difference and increased awareness at community level, and the recommendation paper was targeted to make a difference at a policy level – it was sent to Canada and 80 other countries.

When further asked if he felt engaging in policy was an effective lever to change, Noah replied:

There are a lot of other ways to work on environmental things—education, law, academia, research...but this is one way to influence decision making, a bottom up way to influence as citizens, as young people, who have energy and knowing that decision makers are interested in hearing from us and the preparation that we’ve done and the substance that we are bringing to the table and we do that by having our policy papers.

Along with Noah and Anna, other participants focused on engagement in various modes of policy initiatives as an entry point for change. Stacy spoke of her summer

consulting work for the Halton-Peel Biodiversity Strategy in partnership with the United Nations Secretariat on Biodiversity. Her work focused on examining how “*international organizations get involved in policy making and then how that’s implemented at a regional level.*” As she discussed policy as an entry point for youth to engage in the process of (making) change, Stacy talked about the impact of “working in the system or out of the system.” She described it in this way:

A lot of the time it’s hard to understand how in the system you can make the change that’s not really happening. So I just learned about how non-profit organizations, like NGO’s partnered with government organizations with businesses and how like it’s possible to implement solutions through those channels that are already existing... I just think there’s that existing framework that if you can like use that to your advantage there’s definitely potential within the system for change.... Maybe that’s the economic student in me trying to understand the system, but I like learning about how that all works together and how we can actually use that to like make the world function.

The above examples of youths’ perceived entry points for change-making demonstrate a strong correlation between a desire for sustainability and a greater need for civic engagement. The manner in which these particular youth discussed their various modes of engagement, or ‘entry points’ (i.e., youth representatives with voting power on boards, policy papers, strategic meetings with decision makers, etc.) to access perceived levers of change, offers some important insights for discussion. In the case of Rosie, she clearly valued the need for youth to understand societal systems, how they work, and how (young) citizens can intervene in these system(s) to effect change. When explaining the difference between what she identified as “*active activists*” and “*passive activists*,” Rosie stated: “*I think that when people lose faith in the system that’s when they often take the other approach*” (i.e., becoming “active activists like the Sea Shepards” and work “outside the system”). A different youth shared the following perspective of working “within the system”

in relation to keynote speaker Tom Rand's message to the youth delegates³⁸ (see footnote below):

Yes, I loved that! And I think to myself... where do I fit in that? Do I have the skill to become someone so respected in the field—for example water sanitation field...will I be able to have that much influence? I think it is an amazing concept. Will I ever be in that kind of position? Will I ever have the opportunity to affect that amount of systemic change? ... that capability for myself as a social change maker? Two ways to look at it...there are barriers in place in the system that make it difficult for anyone in the system who has a more social mandate to make change. I have my capacity and my skills and that is what I have to create change and I still think that that is a powerful thing...it's the whole top down/bottom up dilemma... with grassroots efforts, I know that there is this huge change on a policy level that needs to happen and how do you convince people in power that these changes are worthwhile; is it that I can only get up to here with my work [hand gesture] and that's it or that I will only be able to touch it indirectly... do I simply need to earn enough respect and credibility with my own work to access these people...these levers of power.

In each of the above examples, youth express an eagerness to learn how to make change in the system. This is a simple, repeated, and important theme found in this study.

To extend this point, I return to Anna's insights and her policy paper presentation at the Commonwealth Youth Forum. In her paper she further stated:

Current education curricula do not offer youth the knowledge, skills and values required to become active, responsible and informed citizens. As a result, youth cannot be motivated or identify how they can contribute to sustainable growth and peaceful societies.

Her expressed perspectives critically speak to youths' desire for formal education to directly engage them in learning experiences that develop the thought leadership and skills needed to become effective change agents in society. However, as I have stated previously, where the system is failing them, youth are forming their own modes of communities of practice to

³⁸ Tom Rand, a Canadian social entrepreneur, clean energy expert, and author, was the keynote speaker at the EDC Beyond Green Youth Summit at which my focus group occurred. His message to the youth was: "whatever you choose to do, be excellent at what you do, so you earn the right to put your hands on the levers of change."

build these competencies. The Canadian Youth Think Tank, which coordinated this international policy paper presentation for Anna, offers a great example of a working youth-developed, youth-led community of practice. When asked further about this community, Anna shared that in the network: *“we just communicate different opportunities and initiatives that we are involved in to one another—I’d bet 80% of the opportunities I’ve had are [a result of] connecting through this network.”* Another youth builds on this central idea of youth networks or communities of practice by highlighting the extent of ‘solidarity’ within the youth demographic (i.e., *“once you’re an adult you’re not going to be like all us adults can make change because that’s everyone, right, but as a youth you’re still like look at all these youth around me, look at my peers, we can still work together.”*)

In seeking to address the void of learning on ‘how to make change,’ these youth have sought out, and/or co-created, youth networks and youth-oriented communities of practices. The above point is further enhanced by the extent to which these youth, unprompted, talked about youth-adult relationships. In speaking about his then upcoming meeting with Canada’s Minister of the Environment at the UNCCC in Warsaw, Poland, Noah stated: *“I just turned 21 and I would like people to respect me as someone who can contribute valuable ideas and whose thoughts matter.”* An assertion not exclusive to Noah, another youth, Ben, shared similar thoughts:

I guess as a youth you always assume that you can’t do things because I mean we’re, we grow up and it’s like don’t do this, don’t do that, right. And so if you break that assumption you just start problem solving. You’ll come up with ideas on your own and you don’t need somebody else to plant the idea in your head, you can come up with solutions.

Like Noah and Ben above, Anna offered a related sentiment: *“I learned that youth are often perceived as going from high school then university then ok, welcome to the real world. But*

youth should have a part of engaging in society now... that's why I got involved in the organization."

'Breaking the assumptions' about youth-adult relationships is a critical insight culled from my interviews with these youth. The institutionalized, hierarchical nature of youth-adult dynamics (i.e., student-teacher relationship) can be a limiting factor for youth who are keen to engage in (making) change, as Ben aptly pointed out:

Sometimes when people start perceiving youth as these naïve, like over ambitious people it kind of transcends into them and they start to accept it as well and you kind of start to get a little self-conscious and start questioning things a little bit more.

Conveyed across the youth was a strong desire to overcome or "undue" how youth are often perceived; when asked to give an example of how to accomplish this, Lucy replied:

A lot of times when you try to recommend something to a teacher or a principal, they initially think like what is this going to cost us, and from as a student I think sometimes they look down on us, like you don't really understand the economy yet, you don't really understand how finances work. But we did our research and the approach we went about it was how much money are we spending to hire this company to come in and empty our garbage and if we were to reduce the amount of garbage we are producing by diverting it elsewhere, recycling, composting, could we have these trucks come less to our school. And we found out that the biggest bulk, the heaviest things that were in our garbage were mainly things that could have been diverted elsewhere, our recycling, our cans and bottles, cardboard, paper, and if we were just to eliminate that then we'd be left with mostly food scraps and if you could be composting those then there would be almost nothing to pick up, and if you were to expand that across the District or even just in Fredericton you'd be saving a lot of money. I think they were a lot more accepting to our ideas that way.

In building on this theme of youth-adult relationships, several youth in the study spoke about important adults in their lives as 'role models' or 'mentors' including Lucy (above example) who went on to share the following about a particular mentor of hers:

"Brian taught us how to communicate our research in a way that wasn't so juvenile... to communicate it in a way that has scientific research and an economic argument backing it."

Three of the participants went beyond a perception of adults as mentors’ or ‘guides’ or ‘facilitators’ and talked about the central adults in their lives as ‘partners,’ or even so far as to suggest, as ‘peers.’ The following example of Anna’s best illustrated this shift:

There was this benchmarking report [a project Broader Sustainability Initiative (BSI) where Anna volunteered] where we looked at sustainability in other cities in Canada and what our city can take from that and what we can learn. The executive board had decided that they really wanted to do this but no one had the time to do it... I said ‘great I’ll look at it and come up with something’—this wasn’t a youth initiative but one of the major goals of BSI overall, and she [adult peer] just handed it over to me. Our city was very slow, we didn’t have a sustainability report...they had something that was very vague, very rushed, not what you want to see. So they give me that freedom, to give me that space to try what I wanted to do and then she followed up with me and then when she saw what I did, what I produced, then we took it to the board...

Youth-adult relationships and this shift to youth and adults as co-participants is a critical insight shared by the youth in this study, one that will be further discussed in Chapter 7.

In summarizing the key findings from the interview data with regards to youths’ perceptions specific to their capacity to effect change, five central points emerged: 1) similar to the questionnaire data:³⁹ 88% (or 9 of 11) expressed a strong belief and 12% (or 2 of 11) expressed a moderate belief to effect change; 2) again similar to the questionnaire data, a majority of the youth associated individual behaviours and attitudes not only with their identity, but also with their capacity to make change in society (i.e., passion, interests, motivation, etc.); 3) roughly half of the youth (46% or 5 of 11) expressed a perception of change as long-term, sustained change and in turn, identified the transient nature of the youth demographic as a challenge; 4) over a third of the youth (36% or 4 of 11) suggested forthright that formal education falls short in teaching youth how to make change, and in turn, had demonstrated initiative in seeking or forming their own modes of communities of

³⁹ 73% (25 of 34) expressed a strong belief; 21% (7 of 34) expressed a moderate belief; and 6% (2 of 34) expressed a limited belief.

practice; and finally 5) approximately half of the participants (46% or 5 of 11) identified the critical significance of youth-adult relationships in which youth and adults work as co-participants towards making change.

These central points on youths' perceptions specific to their capacity to make change, along with key summary points from the first section on youths' perceptions on eco-civic identity, were continually reflected upon as I moved through examining the next two analytic categories of interest—youths' perceptions on the concepts 'change' and 'student agency.'

3) *Change*

In this section, I was interested in exploring the interview data to see how youth were interpreting change; in other words, when they talked about change or making change, what kind of change were they talking about? Was it change as behavioural and attitudinal or was it more social, political, or systemic in orientation? As discussed in the above sections, a majority of youth correlated personal behaviours and attitudes as elements of eco-civic identity and capacity for change; not surprisingly, many youth (45% or 5 of 11) spoke of change from a similar egocentric perspective. For example, Stephen shared: *“I do things that slowly throughout decades such as recycling become something that’s an everyday household thing, now it is; to me that’s the kind of change that’s important, it becomes an everyday thing, in peoples everyday lives.”* Likewise, Lucy offered: *“I think that it starts on an individual level like changing people’s mindset and making people more considerate in their everyday actions.”*

When these youth above were prompted with a follow up question intended to explore their perceptions a little further on the possibility of different types of change, an interesting response was offered from Stephen:

When it comes to political infrastructure, the economic infrastructure, I find it kind of ridiculous. Because all that... the technologies [are] there, at least that's the thing we can make this change partly with, all the technology that's possible, and it's there and I'm at a university that does research and I'm seeing, I've seen what's coming up and yet I'm not seeing it happen, I'm not seeing it happen at a commercial scale at a large scale, yet it's there, why aren't we exploiting it? And I think there's political and economic reasons that are getting in the way. Which I think, students can have an impact on that as well but yeah, it's a different subject.

Stephen's perception of political and economic impediments to change as being a "different subject" struck me. Despite the inextricable link between social, political, environmental, and economic change, this student's response lends support to the argument that in the context of education we focus largely on personal change, rather than these other broader/deeper types of change, as noted above; furthermore, we interpret learning aimed at personal change to mean primarily individual behavioural and attitudinal change (i.e., recycling and reusable water bottles as highlighted in these examples above).

In contrast to the above perceptions, stood those of the remaining youth who interpreted their capacity to make change from a more systemic lens (55% or 6 of 11), and for whom change was perceived as a more long-term, sustained change (45% or 5 of 11). Some spoke of change in the context of "generational change," as Stacy, for example, shared:

So it doesn't necessarily have to be like doing something different but just a different mindset because I think that's what is holding stuff back right now is that people don't have the proper mindset to deal with problems and to make that change like we're talking about. But just like as a generation starts to get a different mindset towards the problems that are being faced then that's where there's potential to actually enact change within the whole generation rather than just these like individual projects, like if you can get a whole generation that thinks differently that's like legitimate change I think.

Building on Stacy's thinking, other youth talked about different "scales" or "scopes" of change; the idea that there exists "magnitudes of change" was described by Franny in the following way:

I make changes in my daily life as an individual ...like, even though I am trying to make systemic societal change... that's the end goal is societal change right... but there is still change at the individual level. I feel that there are three scales or magnitudes of change that happen along one's journey from being a novice to, like, a mature change-maker or however you want to put it. I mean, it is easier for someone who is getting involved with an issue like, for the first time to say "ok, I'm going to make some personal change – here are two things that are totally applicable to my life that I can do (staggered showers). Even though a spectrum does exist these are stages that are not [pause] mutually exclusive. As you develop skill sets you move towards a more mature change-maker, capable of bigger, social change... but that doesn't mean you stop doing change at the individual level, right.

When asked how she would draw this or if she had a visual representation of these 'three scales of change,' Franny replied:

Maybe it is the tree hugger in me... but I see the roots of something then branching off... If you start with like, someone who is interested in something at the roots of a tree... not the roots of the problem but the individual and things that they are interested in— and as they learn more about issues... they like, start expanding their skill base and they are able to – grow some shoots, branching off talking to other people, reaching out, communicating to others about issues... then more branches formed...making more connections... then continue to encourage others to get involved– continue making more connections... They too start to get involved in community-based stuff... more systemic change stuff. The cool thing about systemic change is that it effects the entire tree... what kinds of leaves are on the tree, the way that the bark is made, as opposed to each person having their own little parts of the tree... part of the larger system.... And when we talk about the larger system using this metaphor then we start to think about things like... is it external forces acting on the tree or things within?

Although Franny was the only participant who offered a visual description, the idea of 'scales of change' was echoed in a less developed interpretation by another youth who put it this way:

When I think of change I think of like scopes of change. I mean you can have change in a local area; you can have it provincial, federal, global. I think you can get in contact with people on a global scale who have already experienced some of the things you have so some of the bottom work isn't as tedious as it would have been initially.

Change was perceived by half of the interviewees as multidimensional or as a concept understood (at least superficially) in the context of a continuum of sorts. This was

the central take-away point teased from analyzing the data associated with this particular category of interest. This finding supports my framework, at least conceptually, which suggests a continuum or spectrum of sorts does exist in the context of environmental action learning. Further discussion on this finding will follow in Chapter 7.

4) Student Agency

The fourth element to explore with the interviewees in relation to my research questions focused on the youths' perceptions specific to student agency as a concept. There is much overlap and interconnectivity between this line of inquiry and the above others; together, these categories of analysis help to better unpack how student agency is being perceived by the youth participating in this study.

It became clear throughout the more in-depth interview process that these particular youth, despite the consistency in interpretation in their questionnaire responses, did not readily use the term 'student agency.' It was my language as researcher, not theirs. In turn, I became mindful to drop 'my language' and to listen to the words they were using to describe what I perceived and have come to know and associate with the concept student agency. In doing so, an important pattern emerged after conducting and analyzing the first few interviews. Several of these initial youth spoke about 'skills' or 'competencies' or 'conditions' necessary in order for youth to 'implement' their ideas towards change. Although some of their focus was on perceived skills needed to be developed, such as "communication skills" (i.e., "*it's kind of you having all this knowledge but no way of sharing it*" or as Rosie put it "*we don't really understand how to communicate as well as we should, like 'how do I compose a letter' or 'how do I write an application' or 'how do I get involved with an organization'*"), and their pointing to schooling as the place for such skill

development to occur; through further analysis, more of the youths' focus was on learning conditions necessary to support youth in effecting change.

Stephen spoke about the need for learning to be student-centered (i.e., *“a lot of students they're either swept up by the way the academic system goes or there's students that are disillusioned by it, you know 'I wish I could be doing this,' but they can't.”*) Anna spoke about the need for teachers to be engaged in their communities, aware of community leadership and learning opportunities for their students, and the need for a “framework” in place *“for youth to get involved in what they want to do... how can teachers support us and help us to do what we want to do in society.”* In building upon both Stephen and Anna's perspectives above, other youth talked about the need for more “action-based learning” as *“we don't really talk about solutions and that's the big piece that is missing.”* Furthermore, Noah cleverly talked about the need to shift learning as “inputting” to learning as “outputting.” His response is noteworthy in full:

Students don't have to wait until they get out of university to start something ...they are capable of making change when they are in school. My philosophy [on school] is that it is all about 'inputs' ...you getting knowledge, teachers are talking to you all the time, giving information to you but you are not 'outputting' ...you are not really contributing to anything to make a positive difference when you are in school. A lot of the times students feel that it is too much to do both at the same time and it does take time/skills but I do think young people are capable of outputting and making a difference while they are students. To create that vision a reality is (sigh), it's an institutional change how education system is currently versus how we envision it to be ... we need people at a local level who can drive programs that aim to and are dedicated to making all those connections between school and community and finding the avenues where they [students] can actually do stuff.

From these youth participants, there was a clearly expressed desire for learning to be about doing, for youth to engage in the process of making change and to have the “supportive framework,” “partnerships,” and/or “space” to implement *“real initiatives that were actually happening out in the world...and not an exercise.”* Perhaps more profoundly,

is that these youth contextualized this as part of what formal learning (i.e., schooling) should be. The concept of school as ‘inputting’ versus ‘outputting’ put forth by Noah offers a very useful perspective around which to shape further discussion. These youth are identifying an ‘inputting’ approach to current schooling as a central impediment to developing their capacity to engage in the process of effecting change in society, their student agency. In turn, they are collectively articulating a need for a shift in schooling culture (including teacher praxis), towards recognition of more opportunities for learning as ‘outputting,’ experiences that enable youth to participate in “real initiatives” in their communities aimed at environmental and social change. This discussion directly ties into the final analytic category that I was keen to examine across the interview data, that being formative learning experiences, both school and community-based, as identified and perceived by these youth.

Perceptions on Formative Learning Experiences

Not surprisingly, the findings culled from the interview data with respect to formative learning experiences directly echoed and affirmed those presented from analysis of the questionnaire data. In the context of school-based learning experiences, these youth identified peer leadership opportunities (i.e., president of EE school council; coordinator of school EE project, etc), as well as alternative/academic programs (i.e., IB program, focus programs, or alternative schools) that embrace a project-based, interdisciplinary, and/or experiential approach to teaching and learning as critical to their respective development as an eco-civic leader. Likewise, the interviewees also commonly spoke of the positive influence passionate, knowledgeable, and community-engaged teachers had on their learning and identity and/or competency as an eco-civic leader.

When speaking specifically about approaches to learning, the youth consistently spoke about the need to make learning “personal,” “relevant,” and “interdisciplinary;” they

continually and collectively pointed to learning experiences that were rooted in such an approach (i.e., *“the IB program, I think it was the connections between everything; it’s making like what you’re learning a lot more important than simply like regurgitating information, you have to think about it... in a more meaningful way.”*) They also asserted, as discussed in above sections, the need for learning to be “action-oriented” and student-centered around projects of interest to them; or as Franny shared: *“I was able to put my energy behind something that mattered.”* Of particular interest, one student, Stacy, spoke of the need for students to *“develop a project centered around their interests”* yet emphasized the need for students to “accomplish something” (i.e., project implementation) as *“what actually like allows them to have that transformative learning experience.”* In contrast another youth focused more on the “learning process” highlighting the various elements that engaged and “empowered her”—*“I loved every discussion, project and friend that I made from that [learning] experience.”*

As the interview conversations shifted towards formative learning experiences that occurred in community rather than school, what became most prevalent across the youths’ responses was, echoed in the above sections, the desire for youth to authentically engage in the process of change. By co-founding a community garden, Julie was appreciative of that experience “as a powerful thing;” in comparing it to school-based learning experiences she went on to say: *“if I’m talking about like concrete changes that I want, then doing them locally is going to, for me, be a lot more powerful than like letter writing campaigns [in school] where the results are very theoretical and out there.”* These youth continually identified community learning experiences that enabled them to embed themselves as participants in decision-making, policy-making, and project development initiatives that led to “meaningful” community-based change as the most formative learning to date (i.e., *“My*

civic-engagement work with Mississauga's Environmental Advisory Committee taught me about politics, how to get things done on committees, and a chance to actually make change.”) For many of these youth, there was a stark contrast between the kind of learning that they experienced through various community participation and leadership opportunities and the “kind of learning in a class;” in the context of his experience as a member of Mississauga’s environmental advisory committee Ben stated:

Like it’s day and night between learning in a class and then- I think for a lot of people, if they [as a class] went to a meeting at city hall and realized, you know that in the format within which things are discussed the range of issues that get brought up, they would see that, that they have a chance to actually make change, or that it’s not as intimidating or difficult as they perceive, that would mean a lot more than just learning about different levels of government in class. Students need to witness the process of change.

Although the majority of the 11 interviewees identified *local* community-based learning experiences as most formative, and the critical role these experiences played in their development of student agency in terms of knowledge, skill, and network building, three youth did speak directly to the “transformative” impact of a particular *global* learning experience (i.e., an Arctic expedition with Students on Ice (2); a development project in Kenya with Free the Children). However, through deeper analysis, two of these particular youth, Noah & Rosie, perceived these global experiences as “inspiration,” catalytic experiences that ignited (further) passion to “engage and make a difference.” Noah and Rosie also spoke about these experiences as incredible platforms to “network” and “collaborate on ideas with extremely knowledgeable and passionate people of all ages from all kinds of backgrounds.” At the same time, Rosie talked about these experiences as being “part” of the equation to developing student agency; in her words, “*you need inspiration [i.e., a 2 week global learning experience] of course but you also need the skills and resources to try to make that change, dependent on what it [kind of change] is. And I think*

that's something that definitely should be worked on more in school." Harvested from these youth participants' shared stories was the overall notion that more of the depth and quality of learning that they had experienced across various community-based learning experiences needs to be incorporated into the kinds of environmental action learning that (could) take place as part of public education learning.

Interpreting the Interview Data in Relation to my Conceptual Framework

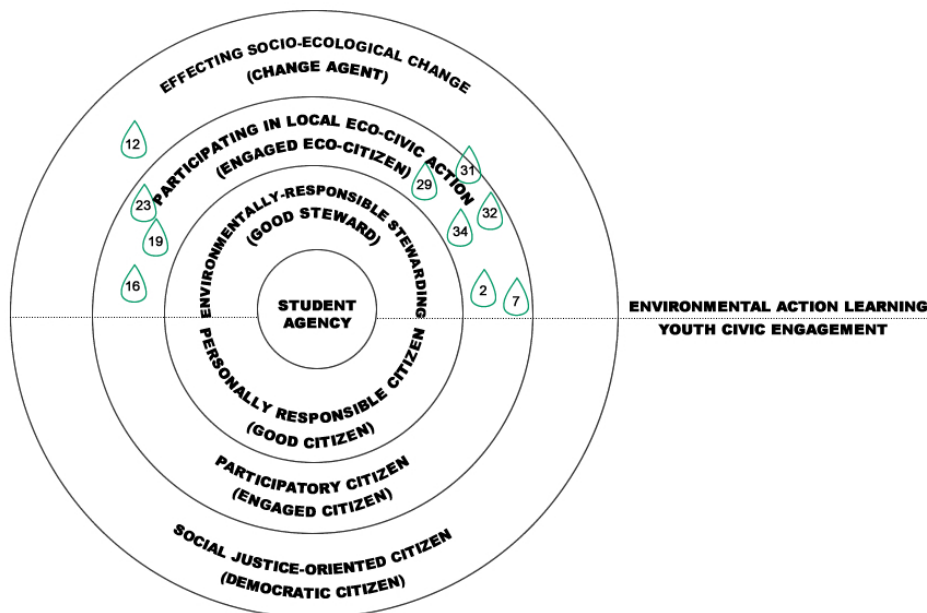
The purpose of this research was to explore the concept and development of student agency in an EE context with a very targeted sample of youth. I interpreted the findings in relation to my conceptual framework on *three kinds of environmental action learning*. Upon completing my analysis of the interview data, I was particularly interested in revisiting my preliminary placing of the youth interviewees on my conceptual framework based on my analysis of their previous questionnaire responses (see Figure 6). After exploring their insights more deeply through the interview process, I wondered if my initial interpretation of where I situated them on this model, with regard to their demonstrated development of student agency, still held 'true.' This process provided me an opportunity to examine my own biases and assumptions about each of these 'theoretical spaces' on the spectrum and my overall conception of student agency.

To recap, as Figure 6⁴⁰ below reveals, 90% (or 9 of 10) of the youth interviewees (based on the questionnaire data) fell within the spectrum of *participating in local eco-civic action* (i.e., organizing community awareness-raising and/or social action projects such as establishing community gardens with local food programs); only one youth (10%) fell into the spectrum of *effecting socio-ecological change* (i.e., Julie, the youth engaged in the True

⁴⁰ Figure 6 is the same figure as displayed on page 132 but only includes a place mark for 10 interviewees. Note: the 11th interviewee did not complete the questionnaire portion of the study, hence why there are only 10 markers on this figure.

North Community Cooperative). None of the youth interviewees fell within the spectrum of *ecologically responsible stewarding*, despite 50% (17 of 34) of the overall youth in the questionnaire findings having done so.

Figure 6: Interpreting Questionnaire Participants' Perspectives in Relation to Conceptual Framework (same as on page 117)



After analyzing the interview data in relation to my above framework, one of my interpretations (i.e., placings) had shifted. It had to do with Noah (#31), the youth who was actively engaged in organizing the UNCCC youth delegations over the past couple of years. I had initially placed Noah, based on analysis of the questionnaire data alone, within the *participating in local eco-civic action spectrum*. Upon reflection I realized that my placing had to do with my own skepticism around the culture and impact of “summit hoppers”⁴¹ and whether or not international policy engagement (i.e., UNCCC) is, in fact, an effective entry point for

⁴¹ “Summit hoppers” was a phrase used in Naomi Klein’s new book, *This Changes Everything*.

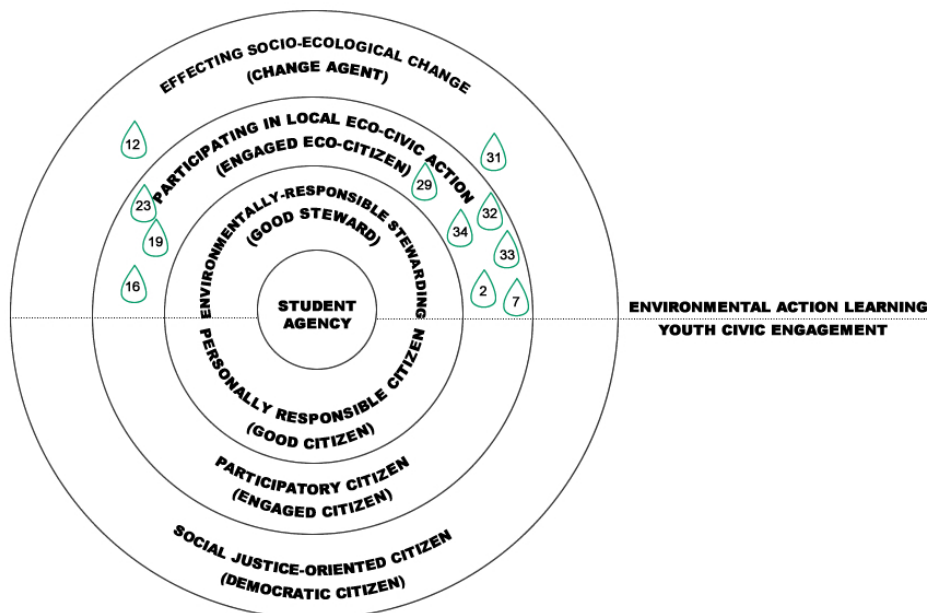
youth participation in terms of driving political and social change. I questioned, based on my own personal experience, whether or not such youth action, despite being youth-led, actually impacted decision-making and (political) change. In serving as a steering committee member for organizing the youth delegation programming for UNCCC COP11 in 2005 in Montreal, Canada, I witnessed firsthand the process of engaged youth in creating a ‘youth statement’ that was officially tabled at the conference. Although the process was undeniably a powerful learning experience with regards to an intense skill development process on consensus-based decision-making, cross-cultural collaboration, strategic policy writing, networking, and partnership/alliance building, I walked away questioning the actual impact of the tabled youth statement. Did the collective ‘we’ effect change that day in Montreal?

Through my interview process with Noah (and other youth including Anna) I gained a better understanding of youth engagement in international policy initiatives and how this particular platform or entry point for student agency has continued to evolve over the past decade. I also came to realize through data analysis and reflection that my participation in the COP 11 youth delegation process, although genuine and of contributive value, was also naïve; I did not embody the depth of understanding, skills, and strategic capacity that Noah and today’s trailblazing youth policy leaders hold. Furthermore, through the interview analysis, I gained a clearer understanding about my own assumptions of change. We did not make any *political* change that day in 2005 in Montreal, as nations have failed globally to reach a climate change agreement over the decade since. However, we, like Noah, most certainly effected *social* change insofar as contributing further momentum to a 20+ year global movement⁴² in which youth have actively engaged, more and more as co-participants.

⁴² In 1992 a 12 year old Canadian girl, Severn Cullis-Suzuki addressed global leaders at the United Nations Rio Summit, what many have argued was the catalytic start to youth engagement in climate and environmental policy.

Aside from resituating Noah on my framework, I also added the 11th interviewee (Karen, #33) onto the framework. Figure 8 below represents these emergent changes. To recap, two youth (Noah & Julie; 18%) fell in the *effecting socio-ecological change* spectrum; the remaining nine youth (82%) fell in the *participating in local eco-civic action* spectrum.

Figure 8: Re/interpreting Interviewees' Perspectives in Relation to Framework



Summary of Key Findings from Interviews

Four central findings emerged from the interview data; these findings, not surprisingly, affirmed the summative findings from the questionnaire data. However, by engaging in the more personal and in-depth method of interviews, deeper insights and richer text surfaced. This process allowed my own biases and assumptions to be challenged, my preliminary findings to be questioned further, and my overall confidence with

On September 21, 2014 millions of people gathered in the largest climate action march in history and 2646 climate action marches took place in 162 countries, with the largest being 400,000+ people participating in the New York City *Peoples Climate March*.⁴²

operationalizing a rigorous study to be developed. The four findings included: 1) a co-existence of egocentric perceptions of identity and capacity as young eco-civic leaders (i.e., individual personal traits such as motivation, interests, and passions) with a more relational, eco-centric approach to eco-civic leadership and change-making through network building and/or participation in communities of practice; 2) half of the youth perceived change as multidimensional or in the context of a continuum of sorts, including change through a more systematic lens (i.e., long-term, sustained change); 3) several youth suggested forthright that formal education falls short in teaching youth *how to make change* and in turn, expressed the need for learning to be more “action-oriented,” “interdisciplinary,” student-centered around “projects of interest to them,” and focused on “outputting,” the authentic engagement of youth in community learning experiences as participants in decision-making, policy-making, and project development initiatives aimed at “meaningful” community-based change; and finally 4) half of the participants identified the critical significance of youth-adult relationships in which youth and adults work as co-participants towards making change.

Two final observations are noteworthy because they affirm that a significant gap exists between how EE is currently practiced and how it is being theorized, including how it is being taken up in recent policy initiatives. First, it is important to highlight that only two youth (Noah & Julie; 18%) fell in the *effecting socio-ecological change* spectrum while the remaining nine youth (82%) fell in the *participating in local eco-civic action* spectrum. If only two of these highly engaged young eco-civic leaders in Canada are demonstrating capacity to effect change in the broader social sphere, then it is suspect that the majority of Canadian youth are falling within the first spectrum(s) of my framework. In other words, the kind of environmental action learning currently taking place in schools is not creating a high

percentage of “change agents,” young people equipped with the knowledge and skills to effect the “long-term change in society,” as advocated for in recent EE policy.

In building on the above observation, my second finding is that the development of student agency is not a matter of ‘either/or’ (i.e., creating “good stewards” or creating “change agents”), but rather one of ‘both/and.’ We need to develop environmentally responsible citizens who are ecologically literate and who are committed stewards.

However, was also need to develop engaged, democratic citizens who possess the capacity and competencies to effect change beyond individual behaviours and personal actions. As demonstrated by the perspectives of the youth in this study, the locus of change (i.e., individual, collective, social, system) and the locus of action (i.e., ‘within me,’ ‘within us,’ ‘within society’) are multidimensional and mutually inclusive. In embracing a broader spectrum of change, *both* an egocentric *and* an eco-centric perspective in the context of youth eco-civic leadership and student agency is necessary.

With these points made I now turn to a discussion on the overall emergent narrative themes of this study.

**EGO/ECO-CENTRIC THINKING, LEARNING CONDITIONS AND
YOUTH-ADULT RELATIONSHIPS MATTER:
Chapter Seven**

Education doesn't always have a strong relationship with community
but sustainability demands engagement of education.

(Robert Vanwynsberghe, Education Professor)

This study set out to contribute to previous scholarship in the field of EE that has focused on environmental action learning (Almers, 2013; Arnold et al., 2009; Blanchet-Cohen, 2008), agency (Barrett, 2007; McKenzie, 2006), as well as more recent work that is bridging EE with different fields of research focused on sustainability, citizenship, and change-oriented learning (Chawla & Flanders Cushing, 2007; Schusler & Krasny, 2010; Wals & Jickling, 2009). This study supports the arguments being put forth in the above body of work which collectively assert that “it is no longer enough for environmental education to promote action for the environment” (Chawla & Flanders Cushing, 2007, p. 437), and action referring to personal/individual behaviours or what Gardner & Stern (2002) refer to as “private actions.” Strategic action or “strategic environmental behavior” (Chawla & Flanders Cushing, 2007) in the realm of the ‘public’ must now become an educational objective and pedagogical aim of EE teachers and practitioners. Furthermore, we know that focusing on individual behavior change is not enough to drive long-term sustained socio-ecological change. We also know, as argued by Gardner & Stern (2002), “the most effective actions are collective” (p. 258). Further still, we know that learning is a social, relational, and collaborative process that can lead to change (Noddings, 1986; Wenger, 1998; Wals, 2007).

Previous scholarship has identified young environmental leaders’ SLE and their impact stories of a range of EE programs or experiences. Other research efforts are working

to address “fundamental processes in the development of effective action” (Schnack, 2000) and learning processes that engage students in participatory action (Reid et al., 2008). Less research, at least empirical, has examined the development process of student agency from a youth perspective. EE research that has taken this up has typically done so through a critical socio-ecological perspective (Barrett, 2007; Lousley, 1999; McKenzie, 2006). Little research has explored the youth perspective on agency through an eco-civic action learning framework. More inquiry is needed that co-explores with youth what student agency means to them, how they perceive their own capacity to effect change, and what insights they have on learning experiences, processes, and conditions that support youth in actively participating in action-oriented learning aimed at change. This marks the contributive aim of this study and to which the following discussion on the emergent narrative themes across the findings of this study serves to offer.

Three central narrative themes emerged from my findings. First, the large majority of youth in this study, keeping in mind that all of these youth are regionally or nationally recognized eco-civic leaders, demonstrated, generally speaking, an egocentric perception of their identity and capacity as a young eco-civic leader. For the purposes of this study, I am not using the concept of ‘egocentric’ to describe a person who holds an anthropocentric worldview (Stanger, 2013). Rather, I use this word to describe an understanding of agency that is less relational and more individualistic, as demonstrated by many of the youth in this study. The majority of participants collectively perceived the locus of change and action (fully for some, partially for others) to rest within the individual. This finding is of concern for proponents of environmental action learning, action civics, and broader youth development who are focused on cultivating an active citizenry capable of effecting change. If this purposeful sampling of youth is interpreting student agency and change through a

predominantly individualistic lens—the answer to my first central research question—than chances are the vast majority of youth in Canada also perceive environmental action learning and formal schooling efforts to develop ‘active citizenship’ as having to do with establishing and modeling personal pro-environmental attitudes and behaviours (i.e., becoming good stewards).

However, with this first finding stated, there coexisted in a significant number of these same youth (45%) demonstrated elements of eco-centric thinking, including: a) a strong valuing and recognition of the critical importance of collective action through collaboration; and b) change being perceived more broadly (i.e., social, political, ecological). Although seemingly contradictory at first blush, these youths’ insights revealed an obvious co-existence. For these particular youth, it was not a matter of ‘either/or’ (i.e., egocentric versus eco-centric thinking) but rather that of ‘and/both.’ Egocentric thinking is important as it motivation, commitment, passion, and the idea the one’s actions are pertinent. Ecocentric thinking, on the other hand, matters as it represents a more reflexive understanding of participatory and collective action towards broader change. This central theme of egocentric/eco-centric thinking will be flushed out in more detail in a designated section below.

A second central narrative theme that emerged from the findings focused on learning conditions inherent to, as identified by these youth, the development of student agency. This narrative theme encapsulated insights on pedagogical approaches, including the notion of “learning as outputting,” the need for the locus of learning to shift from the classroom to the community, the need for certain identified competencies to be taught as part of the curricula, as well as identifying a few specific entry points for youth to better effect broader change. A more robust discussion on this second theme will take place below in a targeted section.

A third key narrative theme emerged from the study's findings which grew out of a particular element of the 'learning conditions' theme identified directly above. Youth-adult relationships were an important dimension of the study dialogue related to learning conditions perceived by the youth as necessary in the development of student agency. Their particular insights shared in relation to youth-adult relationships were of significance as they offered a rich opportunity to contribute to, and build upon, previous research done in this area (Cook, Blanchet-Cohen & Hart, 2004; Fletcher, 2012; Hart, 1997). Although a minority, some youth in this study spoke about youth and adults working together as "co-participants" and "peers" in what I have interpreted as communities of practice aimed at effecting sustained social, political, and environmental change. Specific to formal education, these particular youth further addressed the need for teachers to be more embedded in their communities as active citizens themselves. In turn, would become better equipped to serve as community "connectors," connecting youth to opportunities and entry points aimed at cultivating capacity for change. These youth were putting into practice (and giving language to this practice) what is being advocated for in recent youth-adult partnership discourse (Fletcher, 2012; Khanna & McCart, 2007). This body of work in the context of this study will be discussed in the appropriately titled section below.

Theme #1: Both Egocentric and Eco-centric Thinking Matter

This research has identified that a gap exists between how EE is being currently practiced (i.e., environmental action learning aimed at individual behavior change and stewardship) and how EE is more recently being theorized (i.e., 'active citizenship' and collective, participatory action aimed at broader social, political, and environmental change) (Ballard & Belsky, 2010; Stevenson et al., 2013; Tidball & Krasny, 2010). Generally speaking, EE in Canadian schools is focused largely on cultivating responsible stewards

through environmental learning experiences. To take a step back, EE has long been subjugated within the science curriculum or perceived as an extra-curricular learning experience often conditional on time, resources, and/or teacher champions. EE within broader schooling culture has become interpreted and normalized as school recycling programs, litterless lunches, and reusable water bottle stations, as examples. However, as a broader societal movement takes shape here in Canada (and beyond) with regards to connecting youth to nature,⁴³ momentum and impetus to shift EE from the margins of public education discourse, including curricula, is too building. Provincial EE policy frameworks, as noted in the introductory chapter, have widely emerged calling for EE to be “applied across the curriculum” (Ontario Ministry of Education, 2007). School board procedures on EE have resulted in turn, as has wider support for, and emergence of, such EE-related initiatives as outdoor classrooms, publicly funded Nature or Forest Schools, and green-building school design and/or facility retrofits with respects to energy certification programs (i.e., the EcoSchools program in Ontario).

Furthermore, an emerging groundswell of evidence-based research supporting the health benefits of getting kids outside, including: lowered stress and anxiety levels (Faber Taylor & Kuo, 2011; Wells & Evans, 2003); increased energy, fitness, self-esteem and overall well-being (Cooper et al., 2010; Kimbro et al., 2011); as well as improved focus and academic achievement (Blair, 2009; Matsuoka, 2008; Wells, 2000), has helped to ‘build the case,’ furthering momentum for *mainstreaming* more environmental learning opportunities, or for learning in general to occur through a more ecological lens, in Canadian schools (and beyond). However, critical to this renaissance of EE is the question, ‘to what end goal?’ Is

⁴³ See Child & Nature Alliance Canada, Children & Nature Network, David Suzuki Foundation’s 30x30 Challenge, Take Me Outside, Parks Canada “no walls” initiative, Robert Bateman Foundation’s ‘get kids outside,’ as examples.

environmental learning for improved student well-being (a more recent objective of EE) and the development of pro-environmental behaviours (a more traditional objective common to current EE praxis in schools), as important as they each are, the central end goals? If yes, then the findings from this study are less relevant, if relevant at all. If however, there are broader end goals of EE and public education itself, including the development of democratically engaged citizens who are equipped with the knowledge, collaborative skills, and capacity to participate in effecting broader socio-ecological change aimed at sustainable community building, then these findings are significant and of concern.

In moving forward on the assumption that the latter aim suggested above is of significance, then we know, as Westheimer and Kahne's (2004) and others' related work on civics education has made clear, personal acts of good citizenship (i.e., good stewarding) does not equate to the development of democratic citizens capable of effecting (or understanding how to effect) social, political, and environmental change. I fully support and advocate for more encouraged opportunities for teachers to take 'learning outside,' knowing personally the value and role it plays in fostering, supporting, and/or improving mental, emotional, and physical well-being. I also, like the youth in this study, identify with the contributive role pro-environmental attitudes, behaviours, and actions play in our day-to-day lives with regards to personally responsible stewardship. But both of these objectives represent only pieces of the sustainability puzzle; we need a citizenry of youth who can actively and effectively participate in the innovative, collaborative, and solutions-oriented thinking and re/designing of our social structures and systems, keeping earth in mind. As Westheimer and Kahne identified nearly a decade ago, we need to develop in students an ability to examine the root causes of injustices followed by the know-how to effect the

necessary changes. As it has been often suggested publicly before, the broader social and ecological challenges that we face are, first and foremost, a challenge of education.

What does this central finding—a perceived egocentric locus of change and action across this intentionally targeted sample of young eco-civic leaders in Canada— mean? In reflecting on this question, I wondered if my criteria were too high; was the conceptual framework that I had created to analyze the findings of this study offering a spectrum of change that was too broad or beyond the developmental scope of youth? Was it unrealistic to consider youth between the targeted age range of this study (16-24) capable of effecting (or understanding how to effect) broader social and system(s) change? Furthermore, was it unrealistic to expect change within a year or two? As youth pointed out in this study, this kind of change takes time. Further still, is their predominant focus, generally speaking, on personal behaviour and individual action aimed at environmental change, an accurate reflection of how EE is both perceived and taught in Canadian schools? With no control group, a relatively small sample study size (i.e., 34 participants), a limited timeframe, and an acute mindfulness that my findings are interpretive, I wondered whether or not this emergent narrative theme held validity. Closer analysis and reflection of the findings quelled my concerns. Two central points of rationale can be argued, to which I now turn.

First, several of these youth spoke about the individualistic nature of public education and its limitations. Although their insights were critical, I was also reminded that they, like (most of) us, are products of the system itself, shaping knowingly and unknowingly, many of the ideological foundations of our lives. They perceived knowing that school-based learning experiences limited their (development of) capacity for collective action as the education system is not designed (although is often imagined) as a space to challenge and change the status quo. Schooling as a whole encourages individual engagement, achievement, and

leadership. It measures individual competency of a standardized body of knowledge and related skills in applying such knowledge. EE's focus on cultivating good stewards does align with the individualistic nature inherent to public education as pointed out by the youth participants. Such egocentric thinking has, not surprisingly, informed how EE is pedagogically perceived and implemented in the classroom. These particular youth have been both socialized and in turn, are socializing their peers around personal acts of pro-environmental behaviours through positive environmental learning experiences. Students are recognized and awarded for excelling within such a framework, exemplified by the youth in this study. Their success, recognition, and impact around this mode of engagement has been formative in their lives to date. In turn, it was not surprising to me that such a perception of student agency would influence many of the stories they chose to share with me throughout the research process.

Critical to this discussion however, was an observation that this egocentric perspective demonstrated by the participants in this study was partial, as opposed to being a complete, unequivocal stance. This leads me to my second point of rationale behind upholding the validity and significance of these findings. With each reading of, rereading, and periods of 'living' with the data, the emergent egocentric perception of student agency shared widely by these youth was often accompanied by insights more reflective of eco-centric thinking. Some of these youth demonstrated through stories shared, an understanding of change, as well as a perceived capacity to effect change, that extended beyond individual action. There was a coexistence of both egocentric and eco-centric thinking in these particular (45%) youth. They identified the importance of individual passion, environmental interests, and committed motivation to effecting change (i.e., the locus of change and action to be 'within me'). At the same time, however, several of them acknowledged the criticality

of collective action and impact through collaboration—shifting the locus from ‘within me’ to ‘within us’ and to ‘within the social.’

Closer analysis of some of their demonstrated understanding towards a coexistence of both egocentric and eco-centric thinking revealed an interesting correlation as discussed in the presentation of the findings (see Chapters 5 & 6); the correlation being that the more some of these youth perceived the locus of change and action to be in the space of the collective (i.e., less about what ‘I can do’ and more about what ‘we can do’ and ‘how’), there was evidence of a declining sense of perceived capacity to effect change. It seemed that through a deeper understanding or at least a heightened mindfulness of the complexities of effecting broader social and system(s) change, coupled with a more attentive focus on the process(es) of change, these few youth, despite their strong identity as an eco-civic leader, expressed a perceived capacity to make change as “limited.” It appeared, experience trumped idealism, as suggested earlier. Upon reflecting further on this interesting correlation, my conceptual framework may have been ambitious for this targeted age range. Although not unrealistic to consider youth between these ages as being potentially capable of effecting (or understanding how to effect) broader social and system(s) change, their “cognitive dimension” (Baxter Magolda, 2004) or “cognitive engagement” (Zukin et al., 2006) with regards to being a civic actor towards social, political, and environmental change is still evolving, and rightfully so. Furthermore, although some of these youth are engaged in change-oriented community initiatives, they have yet to witness the degree of change to which they wish to see. Some expressed “frustration;” others, more maturely, reasoned that this work “is about seventh generation thinking.” Nonetheless, their insights on the coexistence of both egocentric and eco-centric thinking in environmental action learning are important.

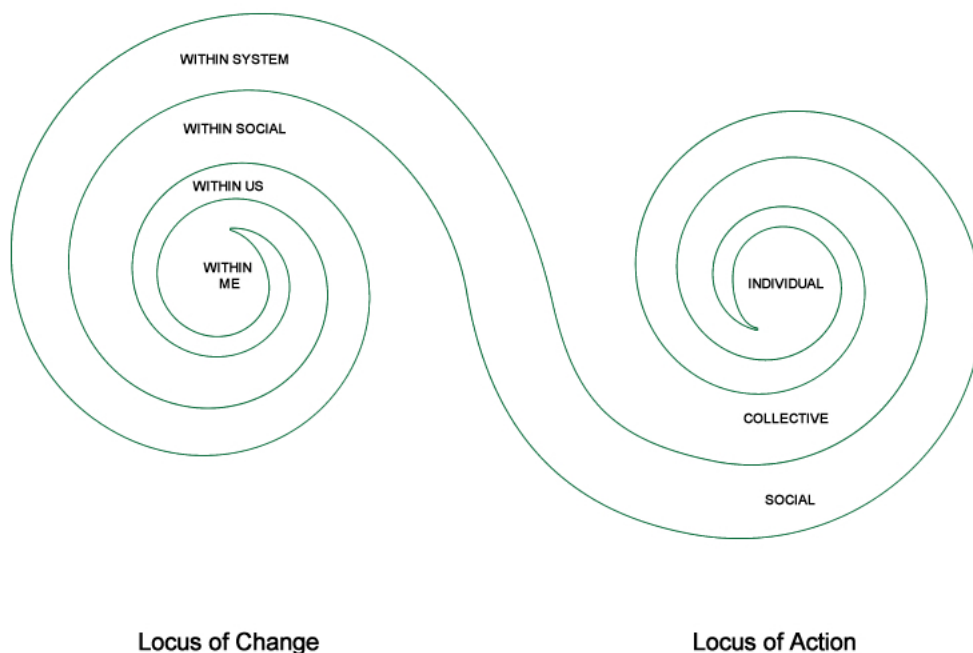
If we are to embrace as EE practitioners what current progressive EE theory is advocating then our collective pedagogical understanding of environmental action learning, or (environmental) education for ‘active citizenship,’ needs to shift the locus of change and action to include not simply the individual but also the collective, and onwards to the social. As the youth in this study demonstrated through their shared responses, it is not a matter of *either* learning for personal environmentally responsible stewarding *or* learning the knowledge and skills to effect broader social change. It is both. Currently and generally speaking, we as EE teachers are fixated on the former. We need to embrace a broader understanding of change and a deeper understanding of environmental action learning experiences, conditions, and principles that support students in developing the necessary knowledge and skills to collectively effect such broader change. We need to move environmental learning beyond individual behavior change (i.e., personal acts of stewardship) to include: a) “strategic behavior change” in the public realm (Chawla & Flanders Cushing, 2007); b) collective behavior change through what Kool (2014) refers to as ritualizing EE,⁴⁴ making such a school wide approach an agent in itself for cultural change; and c) a deeper learned understanding of, and capacity for, change on a socio-ecological systems level.

Figure 9 (see below) attempts to illustrate the above discussion on the perceived locus of change and action, as depicted from listening to the perspectives of these youth. There was a direct relationship between the locus of change and the locus of action; much like an

⁴⁴ EE scholar, Kool (2014) suggests that a schooling culture of environmental behavior change is needed through ritualizing collective EE practice sequentially and developmentally from grade to grade (i.e., grade ones are responsible for regular school year cleanups; grade twos are responsible for paper and plastic recycling in the school; grade threes—green waste composting; grade fours—designing, enhancing and maintaining outdoor classroom spaces; grade fives—energy audits and energy action plan for school; and so forth). Kool’s argument helps nudge the locus of change and locus of action as currently perceived in the context of environmental action learning from a focus on the individual to that of the collective.

infinity symbol, student agency is ever evolving; it is a dynamic learning process. Change occurs within the individual, the collective, the social, and the system(s); change is also *enacted* by the individual, the collective, and the social. Eco-centric thinking, or ecological thinking, offers a more relational approach to eco-civic leadership and change-making. As demonstrated by the youth participants, they identified and valued the essential role relationships, network building, collective action through collaboration, and the establishment (intentionally or not) of communities of practice play in effecting broader social change.

Figure 9: Relationship between Locus of Change and Locus of Action



Eco-centric, or ecological thinking, in relation to leadership and change is central to several related fields of study including (but not limited to) systems thinking, complexity theory, and organizational change theory (Senge, 1990). In the latter, consensus-based

decision-making, shared leadership, and horizontal models of collaboration replace traditional, hierarchical, and anthropocentric models of leadership. Several theorists have bridged the fields of organizational change, systems thinking, and education (Barlow & Stone, 2011; Capra, 2000; Maturana & Varela, 1992; Wheatley, 1999/2005). Mindful that a hearty theoretical discussion on these related fields, although critical and interconnected, is beyond the scope of this study, there exists one particular point of interest as necessary to discuss here. The above finding in terms of how these youth demonstrated eco-centric thinking related to the work of Barlow and Stone (2011) on the ‘Theory of Living Systems,’ a theory for and about leadership and change in the context of education. Grounded in systems thinking and informed by the work of Capra, Maturana, and Varela, and Wheatley amongst others, the idea of ‘communities of practice’ (Wenger, 1998) is discussed as a central element of the ‘theory of living systems.’ In this work, Wheatley’s (2005) perspectives on communities of practice are examined. She states: “members of communities of practice make a commitment to be available to each other, to offer support to share learning, to consciously develop new knowledge. They are there not only for their own needs, but for the needs of others” (p. 177).

In the backdrop of Wheatley’s interpretation of communities of practice above, several youth in this study (36% or 4 of 11) expressed needing, actively seeking, and/or were in the process of experimentally co-creating such *supportive spaces of learning*. In having identified such spaces as frustratingly void in public education, and in formal schooling environmental learning experiences more specifically, they found or built their own ‘communities of practice’ (i.e., assuming a shared leadership role within a local food security and community resiliency building cooperative; being a co-participant in a ‘living-learning community’ focused on sustainability and social innovation; co-founding the *Youth Arctic*

Coalition, a youth collaboration to address environmental, economic, and social challenges and opportunities in the Arctic; founding a community bike cooperative and building a network amongst other bike coops in the city; etc.). In each of these instances, it was outside the school walls where these youth sought and developed the desired knowledge of, skills for, and opportunity “to do” collective action through collaboration, contributing to, in some of these cases, broader community and environmental change.

As social movement theory and history itself have both taught us, youth make up their own social movements often aimed at challenging and changing the status quo, or the system(s). Here in Canada in the past few years, for example, several youth-led social movements can be identified, including: a) We Canada; b) Powershift Canada; c) Shannen’s Dream; and d) Quebec students’ march. In each of these cases youth championed an innovative idea and mobilized thousands of youth around this idea through alternative approaches to “traditional modes of social change” (Clarke & Dougherty, 2010). Much of the emerging literature on youth civic engagement, youth social entrepreneurship, and youth leadership that focuses on social movements and social change occur, almost exclusively, in the public sphere (Gauthier, 2003; Maak, 2007; Zimmerman, 2007). Youth-led movements typically occur in the public sphere, outside of formal schooling, because the necessary conditions that allow for innovative ideas, and the risk-taking and mistake-making opportunities essential to creatively operationalize such ideas, are not only present but widely encouraged (Johnson, 2003), unlike in schooling. Moreover, youth-led social movements that both raise awareness and have impact in the public sphere are rooted in collaboration, partnerships, networks, and shared leadership models (Gauthier, 2003), elements that are not typically central to our century-old, industrialized schooling model.

Research within the above body of work on youth social movement theory suggests that youth are best positioned to effect change on: a) a socialization level (i.e., raising awareness amongst peers); and/or b) on an influence level (i.e., encouraging others to change attitudes, behaviours, or policies) (Clarke & Dougherty, 2010; Gauthier, 2003; Ho, 2013). Youth, it is further suggested, are more limited in effecting change on a “power” level (i.e., capacity to directly impact the problem through decision making), the third level of a typology on youth civic engagement that has evolved by the collective work of the above authors. Youth have traditionally not been the decision makers in society and have lacked access to such people or agencies of power. However, with growing research in this field on youth social movements, including the rise of youth social entrepreneurship, recent work suggests a fourth level exists, *partnerships* (Ho, 2013). Through strong youth-adult partnerships, where either youth’s innovative thinking is connected with adults’ positions of power (i.e., reverse mentoring) or youth and adult together share decision-making efforts around youth-initiated actions, this emergent layer on the youth civic engagement typology enables youth to move beyond traditional barriers of civic engagement and to directly effect broader social change.

Much can be learned from the above body of research on youth social movements in terms of identifying models and strategies for youth-led social change (Clarke & Dougherty, 2010; see Appendix BB). Growing discourse within the fields of EE and civics in relation to formal education is advocating for a shift in learning praxis towards learning experiences that cultivate capacity for young people to better participate in more collective action aimed at broader change (i.e., a partnership model of engagement as opposed to socialization and/or influence models noted above). More research is needed however, that focuses on identifying pedagogical strategies designed for public education learning. Beyond youth

social movement theory and the recent and important work being done in various bodies of work in EE and civics as outlined throughout this study (i.e., action competence, critical socio-ecological perspectives, social learning and participatory action, action civics), another place to turn would be to look at existing innovative and successful school models started by youth (i.e., Redfish School of Change in British Columbia, Canada; the Independent Project in the United States, including its evolution redefineschool.org). Beyond ecological thinking, it seems more (youth) social entrepreneurship thinking and design needs to be brought into public education discourse.

Across all of the above intersecting sources of insights, the first central emergent theme from this study is widely affirmed. Formal learning experiences may succeed in supporting youth as individuals in developing capacity to impact change through individual behaviours, attitudes, and action (i.e., stewardship as socialization and influence), but it falls short, especially from a youth perspective, in developing capacity in youth to have impact and effect change at broader collective and social levels (i.e., agency as power and partnerships). Environmentally responsible stewardship by individuals matters, as does a strong sense of self-efficacy that one can make a difference. But such learning outcomes are not enough. The cultivation of student agency along with eco-centric, or ecological, thinking also matters, perhaps more. As a growing body of EE research suggests, collective and participatory action in the public sphere is where change is most needed to re-orient our current unsustainable trajectory (i.e., Jonassen & Land, 2012; Stevenson & Dillon, 2012; Wals & Jickling, 2009). It is not a matter of either/or—developing either good stewards or change agents— but both. Likewise, it is not a matter of cultivating either ego-centric (i.e., self-efficacy) or eco-centric thinking, but both. Current EE practice in Canadian schools has us collectively sitting at one end of this proposed spectrum, further exacerbated by the notion

that individual behaviour change and socialization is often associated by students with learning that is either required (i.e., mandatory volunteer hours) or incentivized (i.e., some kind of reward for participating) (Ho, 2013). Recent EE theory and policy is advocating for EE practitioners to deepen their understanding and expand their praxis of environmental action learning, a call that based on this study's findings is well supported from a youth perspective.

To build on this discussion on the disconnect between how EE is currently practiced and theorized, as well as *how* the youth in this study are advocating for and imagining this gap to be bridged, I now turn to examining more fully the second central narrative theme from my findings— learning conditions for teachers and administrators to consider in the development of student agency.

Theme #2: Learning Conditions are Important in Developing Student Agency

The second emergent narrative theme focused on learning conditions associated with the development of student agency. This theme directly addressed my second central research question (i.e., learning experiences or conditions that these youth perceived as formative in developing their capacity to effect change). Across the learning experiences that these youth collectively identified as formative, there were several common findings as presented in Chapters 5 and 6. To recap, in no particular order, these included the need for teachers to: 1) make learning (i.e., curricula) more “personal,” “relevant,” and “interdisciplinary;” 2) embrace a more project, experiential, inquiry, and “action-oriented” approach to learning centered on students’ interests; 3) shift the space of learning from the classroom to the community; 4) perceive learning as “outputting,” where learning experiences embedded in local community enable students to apply their ideas, knowledge, and skills as active participants in real initiatives aimed at broader social, environmental, and

political change; 5) value relationships, collaborative and participatory learning, and communities of practice; 6) serve as community connectors for youth (i.e., to be more aware of opportunities and entry points for their students based on students' respective interests) and models of active citizenship; and finally 7) recognize identified skills (i.e., communication, partnership-building, consensus decision-making, etc.) as important learning outcomes alongside a demonstrated knowledge of the curricula.

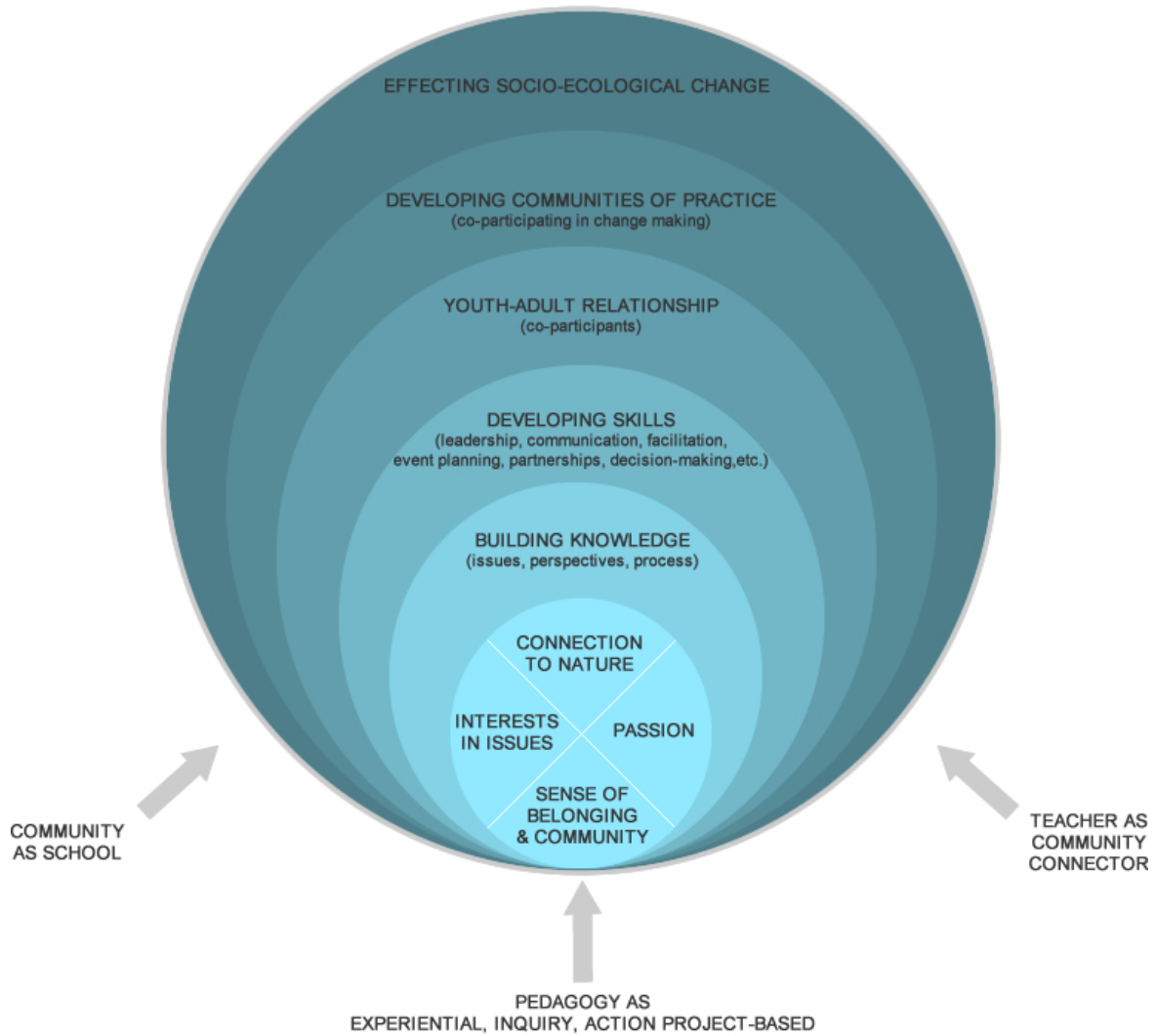
The youths' insights on learning conditions as outlined above focused predominantly on teacher praxis. A few insights also focused on broader schooling culture (i.e., shift the perceived space of learning from classroom to community), as well as curricula more generally (i.e., developing certain skills like communication, presentation, and decision-making amongst others). Taken collectively, the participants' insights made clear that learning conditions are important in the development of student agency in the context of eco-civic action learning. Furthermore, it was the learning conditions experienced outside of the classroom that best allowed them to put many of these insights and elements into practice (i.e., communities of practice). These youth actively sought experiences to co-participate with peers and adults in community projects and processes aimed at broader social and environmental change.

During the ongoing analysis of this second narrative theme, a visual schematic on the development of student agency began to take shape. I wondered at times whether this emerging visual was about me simply trying to better make sense of the findings. Yet there seemed to be an implicit progression to the youth's insights when taken up collectively, a sequential 'feel' to the learning conditions (or elements of) that I was hearing. Rather through text alone, I was keen to attempt to illustrate these insights. Based on the youth's perspectives pertaining to learning conditions supportive of cultivating student agency, my

efforts morphed and evolved several times before becoming Figure 10 below. This visual, framed by an eco-civic lens, offers a nested approach to learning aimed at the development of student agency. It not only highlights the central learning conditions and/or elements as identified by these particular youth but it also honours the coexistence—an ‘and/both’ approach— of egocentric and eco-centric thinking in the context of the locus of change and action as discussed in the previous section.

At the core of this nested image are the individual student and her personal motivation in becoming a young eco-civic leader, as collectively identified and described by the youth in this study (i.e., interest in environmental issues, passion, sense of belonging, and connection to nature). In many ways, these above motivations were the ‘entry points’ out of which these particular youth’s identity as young eco-civic leaders grew. From there, knowledge on environmental issues through an interdisciplinary approach is built, including enhanced understanding and exploring of diverse perspectives. Also knowledge on the root causes of environmental and related social injustices are examined, as well as building understanding of how change (i.e., process) is made in society. Throughout this knowledge building process, an experiential, inquiry, and action project-based approach to learning is used. Particular skills or competencies, as identified by these youth, are concurrently developed through similar pedagogy and praxis. Knowledge and skills deepen as opportunities for collaborative learning alongside adults as co-participants emerge, often occurring within, or leading towards, the establishment of various modes of communities of practice. As youth and adults (including students and teachers) continue to co-participate in solution and action-oriented learning experiences aimed at cultivating change, sustained socio-ecological change is achieved over time.

Figure 10: Exploring the Development Process of Student Agency



The above figure offers my interpretation of the data analysis in relation to the youth's insights on learning experiences and conditions that they perceived as formative in the development of (their) student agency. Likely partial, and perhaps simplistic, this model serves, I would suggest, as a useful platform for further discussion amongst and between EE teachers and school administrators, as well as researchers, and policy-makers with regards to

eco-civic action learning aimed at developing student agency. I consider this model to be an accessible entry point for future discussion and research in the field of EE, as well as potential value to the specific fields of citizenship and critical youth studies, as well as positive youth development more generally. Considering this central theme of learning conditions being of importance in the development of student agency based on the findings, more research is needed on further examining the learning design and teacher education processes necessary to cultivate these identified learning conditions. I now turn to examining more fully a particular element of Figure 10, youth-adult relationships.

Theme #3: Youth-Adult/Student-Teacher must be Co-participants in Learning

Some exciting work has been done on youth-adult relationships both within and outside of formal educational research and broader public discourse pertaining to youth. Much of this work builds on Roger Hart's (1992) seminal *Ladder of Young People's Participation* (see Appendix CC). Hart's identified and widely used *eight levels of youth participation* include: 1) manipulation; 2) decoration; 3) tokenism; 4) assigned but informed; 5) consulted and informed; 6) adult-initiated, shared decisions with youth; 7) youth-initiated and directed; and 8) youth-initiated, shared decisions with adult. Created to better inform adult facilitators (including teachers) on how to more effectively support youth, working with them at whatever levels "they themselves chose to work at," Hart asserted that the bottom three rungs should be avoided (Hoffman & Staniforth, 2007). Pertinent to this particular study are the top two rungs—youth-initiated and directed (rung 7) and youth-initiated, shared decisions with adult (rung 8). At level 7, adults play a supportive role in which youth both initiate and direct a project, program, or learning experience. At level 8, youth self-initiate a project that interests and empowers them, and that enables them to access the "life experiences and expertise of adults" as they move through the decision

making process (Hoffman & Staniforth, 2007). In other words, adults enter the project as a co-participant, bringing to the table with them any insights culled from their lived experiences that might serve to inform the youth's project.

The Centre of Excellence for Youth Engagement (CEYE) in Canada adapted Hart's ladder above by simply flipping it on its side, creating a *youth participation continuum*. The CEYE identifies "adult supports and the adult-youth relationship" as "crucial ingredients of youth engagement" (Khanna & McCart, 2007). This work positions adults as "allies" as defined as "relationship builders" (p. 5). Both youth and adults are perceived to comprise an equal half of the collaborative partnership; "one is not valued over the other" (p. 2). The above authors talk about "youth-only leadership" versus "youth/adult leadership" (similar to Hart's levels 7 & 8 respectively). The latter fosters, according to the CEYE authors, positive capacity building not only on an individual level (i.e., for both youth and adults) but, more importantly, on a *social* and *systems* level. Of particular interest, the authors discuss "structured institutions" (i.e., schools) as challenging environments for healthy youth-adult partnerships to emerge and advocate that teachers and other system leaders require "support and resources to challenge conventional adult roles of authority and power over young people" (p. 6). Furthermore, they go on to briefly outline the 'developmental status' and 'sustaining factors' of a youth engagement framework based on youth-adult partnerships (see Appendix DD for CEYE's *Youth Engagement Framework Map*).

Several Canadian-based guides on youth engagement exist that build on the above work done by Hart, CEYE, and others (Camino & Zeldin, 2002; Finn & Checkoway, 1998; Fletcher, 2012; Zeldin et al., 2001), including: *The Green Street Guide to Authentic Youth Engagement* and the Peel Environmental Youth Alliance's (PEYA) *Environmental Youth-*

Adult Partnership Guide,⁴⁵ as examples. This second guide was brought to my attention by two of the youth in the study who were active PEYA members at the time of the document's creation. Both of these guides highlight similar 'best practices' and 'key successes' of youth participation within their respective organizations, as well as offer an action plan for starting effective youth-adult partnerships. The collective thinking put forth in these guides aligns with the insights shared by the youth in this study with regards to the value, role, and approach to youth-adult relationships, and to the wide take-up, adoption, and adaptation of Hart's conceptualized level 8 of youth participation and engagement.

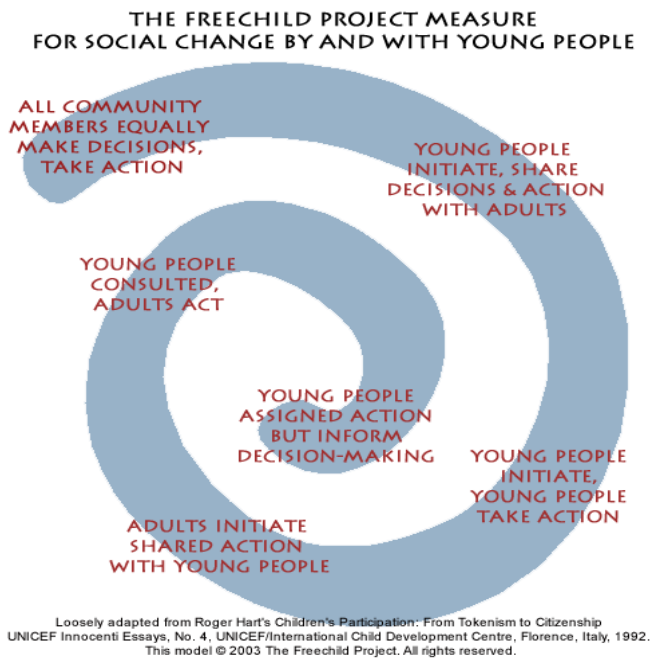
One particular (of the many) adaptation of Hart's model, the *Freechild Project Measure*, is worth illuminating as it focuses on measuring and effecting social change as opposed to youth engagement. The author, Adam Fletcher (2013) in borrowing from Hart's work, moves beyond the youth-adult relationship construct and suggests that the most effective path to social change is when "all community members [are] equally making decisions and taking action."⁴⁶ Furthermore, the *Freechild Project* model (see Figure 11 below) disrupts the previous linear, hierarchical model of Hart's, as well as CEYE's continuum model, by representing the non-linear and emergent nature of social change. This model also offers a temporal dimension, acknowledging that efforts towards social change have been "going on a lot longer than the present." The ideal stage of this model (top left) is where all members, regardless of age and other qualities (i.e., gender, race, sexual orientation, religion, nationality, language, etc.), experience "inclusive, meaningful, democratic, community-oriented, empowering participation" in collective action towards social change. This penultimate state, according to Fletcher and the *Freechild Project*,

⁴⁵ Retrieved at <http://ecosource.ca/about-us/publications/>

⁴⁶ Retrieved on October 10, 2014 at www.freechild.org/measure

supercedes Hart’s top rung—youth-initiated, shared decisions with adult (level 8)— as it disrupts youth-adult discourse, making youth and adults simply part of something bigger – the social.

Figure 11: The Freechild Project Measure for Social Change



Despite this broad consensus on youth-adult partnerships across these various models, guides, and organizations, taking into consideration the *FreeChild Project's* reorientation, the challenge, pertinent to this study and identified above by CEYE, is how to cultivate effective youth-adult partnerships in the context of formal education. For the majority of youth in my study who addressed youth-adult partnerships, these (trans)formative relationships took place outside of school-based learning experiences. Anna’s experience at a community-based organization in which she initiated taking the lead on writing a benchmark report on sustainability in her region serves as a good example. This report was an identified strategic priority of the organization, yet no one had the “time” to take it on. In recognizing this, Anna, as a youth volunteer, offered to do so. Adult input

through a shared decision-making model at subsequent team meetings led to a finished report that largely exemplified an effective youth-adult partnership. In wondering if such a partnership could take place in formal schooling, very few youth participants spoke about teachers giving them this kind of “freedom” and “support” as an “equally valued participant.”

For the few youth who did speak about teachers as ‘peers’ or ‘co-participants,’ what was common to the youths’ descriptions of those teachers was the degree to which the teachers were embedded in their communities as actively engaged citizens. As well, the youth identified the extent to which these particular teachers had a perceived awareness of myriad of local, regional, and/or national youth opportunities for their students with which to access and connect. It seemed the challenge(s) for this kind of youth-adult (student-teacher) partnerships in formal learning experiences is not only a matter of the “structured” nature of schooling as an institution as aptly pointed about by CEYE above. It is also a challenge of, according to these youth, teacher capacity, teacher education, and teacher identity (Iverson & James, 2013).

There are many conceptions of teaching—instructing, guiding, facilitating, mentoring, and empowering to name a few. In his book, *Inventions of Teaching: A Genealogy*, Davis (2004) offers a fascinating genealogical tree of contemporary conceptions of teaching. In doing so, he puts forth the argument that teaching, through an ecological epistemic lens to which I am oriented, suggests teaching as “minding” (i.e., *mindful participation* that builds on Varela et al. (1991) work) and as “conversing, a quality of interpersonal engagement that is all but ignored in the traditional, radically individuated classroom” (p. 177). As Davis appropriately asserts, this concept of teaching “point(s) more to teachers’ attitudes” than to teacher praxis, although I would argue both. Teaching through

this lens directly resonates with, and builds upon, the related work of Noddings' (1984) on 'ethic of caring,' Van Manen's (1991) 'pedagogical thoughtfulness,' and Bowers' (2002) 'eco-justice,' as identified by Davis. As he goes on to speak about teaching as "mindful participation" (p. 176) towards "expanding the space of the possible" (p. 179), he is also drawing on the work of Maxine Greene's (1995) on *wide-awakeness*—"and awareness of what it is to be in the world" (p. 35) and the importance of "teaching for openings" (p. 109). Davis' work also intersects with the recent and exciting work of Stanger (2014) on "(re)placing ourselves in nature," which is carried out through a complexity theory lens.

What the insights shared by the youth participants in this study suggest, deepened by Davis' and others' related work noted above, is a need to reorient teacher education around a conception of teaching that both models, supports, and fosters youth-adult partnerships, as described in this section. Such relationships serve as a critically important condition of learning that is specifically aimed at youth engagement and student agency development. Part of this reorienting work to be done is about shifting teacher attitudes, as pointed out by Davis, to be "mindful in, being conscious of, being the consciousness of—the collective" (p. 178). Part of this work is also about educating teachers on the value of becoming more aware and actively part of the communities in which they teach and live. Although recent research has been done on "self-authoring a civic identity" (see Iverson & James, 2013), the focus has been on students and not teachers. Further still, this work is about a much broader cultural capacity-building effort in perceiving teaching and learning (and schooling) as an experiential and emergent process that takes place in community (as opposed to a standardized learning institution). This type of learning has to do with active, risk-taking participatory action (Reid et al., 2008). Small glimpses of this reorientation appear within the system as I examined such initiatives as the Ministry of Ontario's *SpeakUp* and *Students*

as Researchers: Collaborative Inquiry Action Research (see Appendix EE). More research is needed on learning experiences where students and teachers co-participate in action/change-oriented learning, as well as administrative support for such pedagogical experimentation

Across all three of these central and emergent narrative themes discussed thus far in this chapter, there is an overall optimistic notion that many of the shifts in thinking and practice that are needed to engage and support youth in eco-civic action learning aimed at effecting sustained, socio-ecological change, already exist in working models. We need more research (i.e., appreciative inquiry, critical ethnographic case studies, participatory action research, etc.) that continues to identify these ‘bright spots’ and that connects the dots between. To bring this discussion back into the realm of EE discourse, and in particular in relation to the identified gap brought forth in this study between current EE practice, policy, and theory, I am aware that the discussion of each of the above three narrative themes risks being perceived as an attempt to try and ‘cover too much’ based on my specific research questions. Yet the discussion of these three themes are all connected. In fact, they are a part(s) of what I earlier stated in the methodology chapter that I was not out to find, something of which I previously suggested was at odds with my epistemic ecological worldview— a master narrative.

These findings, and discussions thereof, ultimately contribute towards a master narrative, the “redesign of education itself” as suggested by Orr (2004). Orr goes on to state that at this point in history, we must all “become students of the ecologically proficient mind” (p. 3). This study, rooted in eco-civic action learning framework, a space that draws from other relational fields such as positive youth development, critical youth studies, social learning, and social movement theory to name a few, is part of this much broader master

narrative. As Joseph Campbell, author of *The Power of Myth*, has reminded us, our “old story is not functioning. And we have not yet learned a new one” (p. 170). This research is a small part of a collective effort by many scholars, old and new, in the educational literature that are working on that new story.

As the discussion on the three emergent narrative themes above draws attention to the central impetus beyond this study—to better understand the youth perspective on student agency and the development of—I found value in further exploring the key findings and central themes through graphic facilitation.

Graphic Facilitation

As discussed in the methodology chapter, the purpose for using graphic representation to further analyze and discuss the findings was threefold. To recap, these included: 1) to serve as an artifact of the thinking that emerged from and within this study; 2) to serve as a creative knowledge mobilization and dissemination tool for this research; and 3) to serve as a useful and accessible entry point for future discussion post-study with youth, teachers, school administrators, researchers, and other educational and stakeholders who are focused on youth eco-civic engagement, including student agency development. Through my work as an educator, speaker, and facilitator, I perceived graphic facilitation as an opportunity for further meaning-making. Often through illustration, as opposed to text, we can make connections more easily and begin to see things more relationally. Furthermore, by incorporating graphic facilitation into my findings I was able to model a more ecological presentation of the findings, as opposed to straight text. Such graphical representations of research findings can help bring one’s work to life, allowing it to breathe, to be *unstuck* from the linear tomb of pure text format.

As I talked through my key findings and central narrative themes with Jennifer, the graphic facilitator, she simply listened for the first thirty minutes and drew what she heard. We then shifted into a conversation for the next thirty minutes on what she had drawn and my reactions to these drawings. This process helped me to extract and articulate more clearly key points from my central findings. It brought further clarity on the insights gleaned from this study with respect to implications, contributions, and future research (see next chapter). But perhaps most importantly, it allowed me to gain a better understanding of ecological thinking in relation to my own practice as an educator and educational researcher. I went into this research study to critically examine current EE practice in schools. I perceived EE and civics education, along with other *fields*, as distinct bodies of literature. I wanted to know what EE could learn from civics and vice versa. Although I recognized the concept of student agency as one of the sweet spots in terms of where these two fields intersect, the graphic facilitation process challenged me to really focus in on other “bridging spaces” (Aoki, 2002).

I had set out to intervene at bridging EE and civics discourse through the concept of student agency and an eco-civic action learning framework. However, through the graphic facilitation process, I began to see other spaces to intervene including language (i.e., the ecology of language) for example. Much of the gap that I had focused on addressing through this research—EE’s practice, policy, and theory lag—has much to do with language. Although I had already pointed out the need for us as EE teachers, researchers, and policy-makers, to better understand what we mean but such topical words as ‘student agency’ or ‘active citizenship’ in the context of environmental action learning, I became more mindful of how related concepts and phrases emergent in this study (i.e., youth-adult relationships, co-participants, democratic citizens, community facilitator, resiliency, etc.) relate to one

another and to the re/design of an approach to learning that better supports the development of student agency. Furthermore, I began to see what the youth in this study were actually saying with particular regard to their demonstration of a co-existence of both egocentric and eco-centric, or ecological, thinking. I came to understand more carefully the ‘and/both’ thinking that they demonstrated. It was I who was stuck more in the ‘either/or’ frame of thinking (i.e., stewardship or effecting broader change). In turn, as a result of the graphic facilitation experience and process, I paid closer attention to each chosen word, its relationship to other words, to the ideas being put forth as a result of the findings. I examined more closely my conceptual framework and how it might be reconstructed in light of these findings, post study in future research (see next chapter). In having always valued ecological thinking, I realized that my application of it was largely on a more epistemic and ontological level, and less on a praxis level. This has changed as a result of this study. I have changed.

Figure 12 below represents one of two visual outcomes of the graphic facilitation process. This graphic focuses primarily on the first central narrative, the relationship between the individualistic lens (i.e., egocentric thinking) that was widely demonstrated by the large majority of these youth and the eco-centric lens that co-existed within some. I interpret it more as a representation of the main central finding in this study, as opposed to depicting any suggested recommendations. The central finding being that a significant majority of this intentionally targeted un/representation of youth (i.e., recognized eco-civic leaders) demonstrated a perception of student agency, in terms of both identity and capacity, that was largely self-oriented. Such a finding supports my criticism that mainstream EE practice in Canadian schools over emphasizes the individual as the locus of change and action through a narrowed focus on personally responsible environmental stewardship.

Figure 12 also depicts the interesting correlation emergent in the findings between a heightened understanding on how change is made (i.e., the four youth speaking about “collaboration” and “communities of practice” on the right side of the graphic) and their perceived ‘more limited’ capacity to effect change compared to the majority of their peers who identified the locus of change and action to reside more within the individual.

Figure 12: Graphic Facilitation Visual of Central Finding

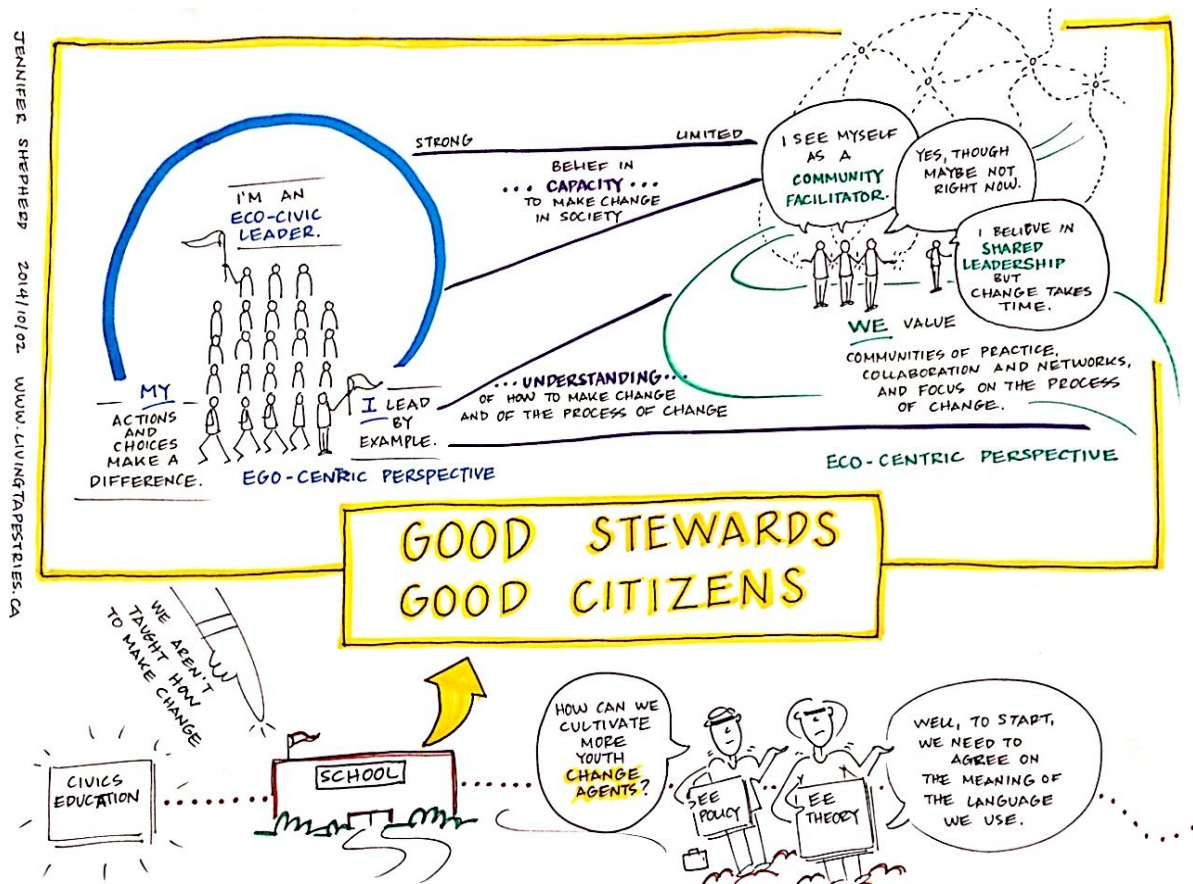
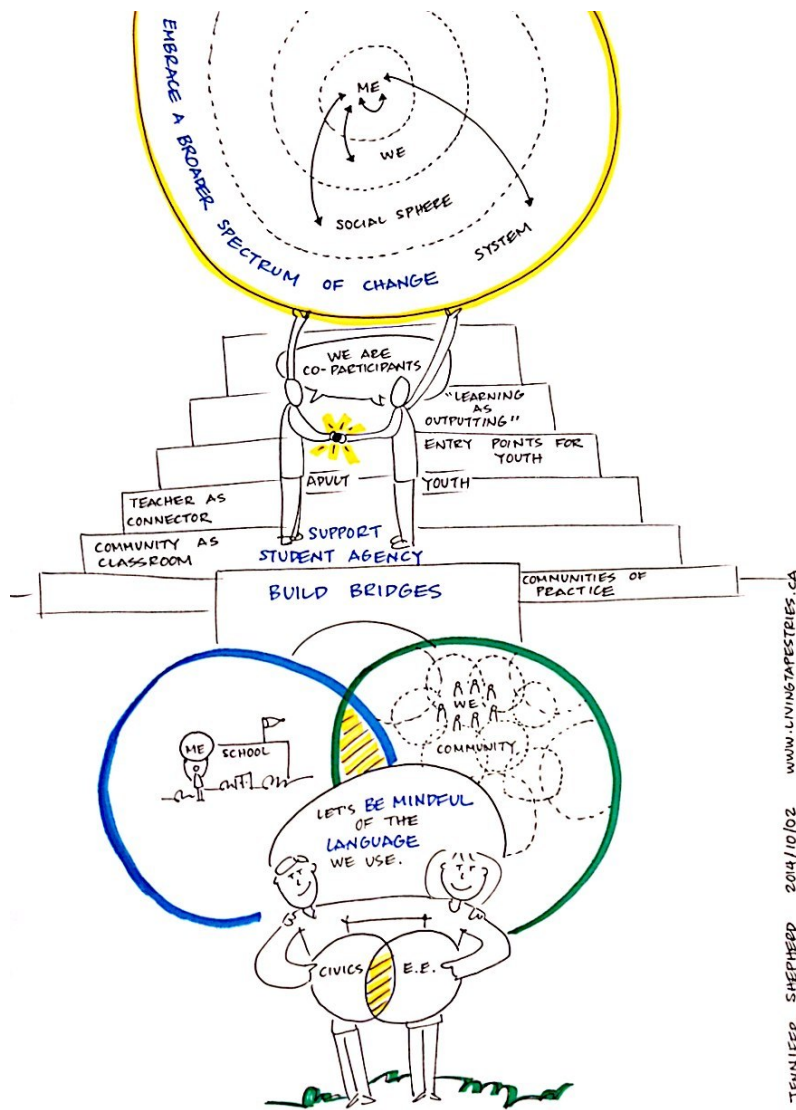


Figure 13, the second of the two graphic facilitation visuals, focused more on what research typically calls recommendations. As you will find in the next chapter however, I have positioned such recommendations more in the form of implications for the field of EE. Figure 13, in turn, highlights the other two central narrative themes – learning conditions and youth-adult partnerships, as well as other pedagogical insights that were identified as

important by this sample of youth. As the graphic depicts, there is an intentional focus on ‘bridging spaces,’ between the fields of EE and civics and the language typical of each of these discourses, between an egocentric and eco-centric perspective (i.e., “me” versus “we”), and between youth and adults. It offers a visual that serves to support EE teachers, researchers, and policy-makers in embracing a broader interpretation of eco-civic action learning, in turn, deepening the possibilities of (better) developing agency in our students.

Figure 13: Graphic Facilitation Visual of Youth’s Insights



I now turn to the concluding chapter to discuss the implications, limitations, and future extensions of this study.

CONCLUSION: Chapter Eight

There is a double learning process at issue here: cultural and educational systems need to engage in deep change in order to facilitate deep change —that is, need to *transform in order to be transformative*.

(Stephen Sterling, *Sustainable Education*)

This thesis is about exploring the development of student agency from a youth perspective in the context of recent trends in EE around environmental action learning and active citizenship. Guided by a relational, ecological orientation and a conviction of the inextricable link between sustainability and citizenship, my rationale for this study was the outcome of more than a decade of experiencing a widespread interpretation of EE within public education discourse as personal acts of environmental stewardship. Coupled with my previous master's thesis work focusing on pedagogical approaches that foster an ecological consciousness, I continually questioned whether this mainstream interpretation of EE could lead to the desired long-term environmental and social change, or socio-ecological change, being advocated for in recent EE policy and literature. Doubtful, as are others (see Blenkinsop & Egan, 2009; Chawla & Flanders Cushing, 2007; Stern, 2000), I wanted to gain a better understanding of this perceived gap.

On one hand, demonstrated models of practice exist within the four bodies of EE research taken up in the literature review (i.e., SLE, action competence, critical socio-ecological perspectives, and social learning) and within recent EE policy, as well as field examples of alternative approaches to environmental learning (i.e., see Stratford Northwestern Secondary School's *Screaming Avocado Project* (Stratford, Ontario) or the *Environmental School Project* in Maple Ridge, British Columbia, as two examples). Yet on the other hand, a nearly ubiquitous take-up of EE practice by teachers and school boards as environmentally

responsible stewarding remains. I turned to the perceptions of a few dozen young eco-civic leaders in Canada, and admittedly a very un-representative sample of youth, to co-explore with me their perceived notions of student agency and their capacity to effect change as a result of various environmental action learning experiences they identified as formative for whatever reasons.

This multimethod, qualitative research examined three guiding questions. First, I asked how do youth who are recognized as eco-civic leaders interpret their own sense of agency. Second, what are the kinds of learning experiences and/or conditions of learning that these youth identify as having developed their sense of agency, their capacity to make change? Third, what do these youth's perspectives reveal about the relationship between school experiences in environmental action learning as currently perceived in the field and their capacity to make change in society? As outlined in detail in Chapter 7, three central narrative themes emerged from this research study that addressed my key research questions above. In speaking directly to my first research question, one central theme revealed that a large majority of the youth participants demonstrated an egocentric perception of their identity and capacity as young eco-civic leaders. They commonly perceived the locus of change and action to rest within the individual. Seemingly somewhat contradictory however, 45% of these same youth spoke simultaneously about the value and importance of collective action through collaboration, as well as demonstrating a broader understanding of change (i.e., beyond the individual). In other words, for these particular youth, there was a co-existence between egocentric and eco-centric thinking (i.e., environmental learning aimed at both individual action and collective action), as discussed in detail in the previous chapters.

The second central theme directly addressed my second research question as they both centered on learning conditions perceived to have cultivated a sense of agency. Across the

youth's shared narratives was a collective call to shift EE pedagogy and (schooling) culture to include: a) community as the site of learning, b) learning as active participation in community-based, change-oriented projects (i.e., communities of practice), and c) teacher as community connector and change agent (i.e., models of active citizenship). These three key ideas put forth by the participants helped to shape a proposed model to support further research and future inquiry around the development process of student agency (see Figure 10). These three central ideas were also prominently depicted in one of two graphic facilitation visuals (see Figure 13).

The third emergent narrative theme across the findings—*youth-adult relationships*—focused on a specific element of the above broader theme on learning conditions that were deemed as important by these youth in fostering student agency. Youth and adults engaging as co-participants in community-based learning experiences aimed at broader change, provided critical discussion that further addressed my second key research question (see previous chapter).

With regards to my final research question, the three emergent narrative themes and the overall findings in general, collectively reveal and support the argument that more attention is needed to better align current EE practice with what has emerged in recent EE policy and theory. For this particular sample of youth, schooling-based learning experiences, although formative in developing their motivation and behaviour with regards to individual action around stewardship, significantly fell short in developing their perceived capacity to effect broader collective and social change. For the majority of these youth, it was learning experiences that took place in the community, either through self-initiated volunteer, internship, and/or collaborative project-building experiences, that helped support and/or develop their perceived sense of agency and change-making capacity. As a result, these youth's perspectives, as anticipated, offer important insights to consider with regards to implications for EE teachers, school administrators, researchers, and policy-makers, a discussion to which I would now like to turn.

Implications for EE Teachers, Researchers, and Policy-Makers

In broader strokes, findings from this study suggest that we need a shift in our pedagogical understanding of what it means to educate for agency. Environmentally responsible stewardship needs to be understood as one (earlier developed) part of a much broader continuum of eco-civic action learning in the context of student agency. Considering “deep sustainability requires deep participation” (Wals & Jickling, 2009), then our collective understanding and praxis of environmental action learning needs to focus on the development (process) of students as active citizens in the form of collaborative civic actors and ultimately societal change agents, not simply as good stewards. We need to orient EE practice, informed by a wider understanding and take up of promising learning processes emerging from such bodies of work as social and participatory action learning, critical socio-ecological perspectives, and other work related to an eco-civic action learning framework. This represents the main argument being put forth by this research. Youth becoming young adults capable of participating as critical, democratic, political, social/ecojustice, ecological, and change-oriented citizens seems essential if we are to successfully mitigate the “severe, widespread, and irreversible impacts” of our current climate change trajectory.⁴⁷

More specifically, findings from this study suggest several implications that are pertinent to EE teachers, researchers, and policy-makers alike. The youth participants collectively voiced a desire for teachers and schooling to make learning (curricula, pedagogy, and conditions) more: a) “personal,” “relevant,” and “interdisciplinary;” b) for learning to be more experiential, project, inquiry, and action-based, centered on students’ interests; c) for the space of learning to shift beyond the classroom to the community; d) for learning to be perceived as “outputting,” active participation in “meaningful” community-

⁴⁷ See the new IPCC report released in Copenhagen on Sunday November 2, 2014.

based initiatives aimed at broader social, environmental, and political change; and furthermore e) relational, collaborative, and supportive of communities of practice; and f) for teachers to be more actively engaged and attentive in civic life. This collective call put forth by the youth in this study, directly relate with some of the ideas and recommendations emerging in current EE literature focused on the nexus of sustainability, citizenship, and broader societal change (i.e., civic ecology education, Action Civics' Theory of Change, social and participatory learning models, etc.).

Let us look at two of the emergent figures from this study. Both Figure 10 & Figure 13 are intended to serve as entry points or platforms for further discussion to help shift the EE conversation, common to mainstream teacher practice in schools beyond stewardship to include student agency. Figure 10 explores the development process of student agency based on the insights gleaned from the particular sample of youth in this study. At the core of this proposed model are some of the key identified catalysts to environmental learning engagement (i.e., connection to/passion for nature, interest in a particular environmental issue, motivation to make a difference, etc.). From this starting point, it is implied that students move outwards from a more egocentric perspective (i.e., self motivation/interest to develop individual knowledge and skills, including stewardship behaviour) and towards the cultivating of a more eco-centric one (i.e., knowledge and skills focused on collective action through co-participatory peer and youth-adult relationships embedded in communities of practice aimed at effecting broader socio-ecological change). Figure 13, which depicts a visual of the youth's insights through a graphic facilitation process, serves, along with Figure 10, as an additional platform for further discussion in efforts to shift current EE practice beyond stewardship. My research recognized that these two working models or visuals are

simply contributive and evolving pieces to a bigger discussion that has begun before, and will continue beyond, this particular study.

Both the above models explicitly outline specific learning conditions that are perceived as important by this sample of youth, and that I would argue, based on experience and anecdotal evidence, resonate with a much broader representation of youth. Each of the identified learning conditions formative to the development of student agency put forth in this study point to the need for enhanced teacher education with respect to eco-civic action learning and/or education aimed at active citizenship. Teachers need professional development and system support to reorient their practice in order to embrace and enact several of these identified learning conditions.⁴⁸ Currently, attention in EE practice is on fostering an ethic of stewardship, building knowledge on environmental issues, and providing opportunities for pro-environmental community service learning or what has been called elsewhere, “charitable civic engagement” (Iverson & James, 2013, p. 102). Although important, it falls short in its attention to change-oriented learning, to the “civic-political aspect of education” (p. 90), and to the cultural capacity building of students and teachers as co-participants in both learning and civic action.

Building on the above implications directed at teacher education, there exists a need for the development of a comprehensive Kindergarten to Grade 12 framework for EE, one that puts more emphasis on pedagogy and praxis than EE discourse’s current attention on curricula. Such a framework would move along a developmental continuum, highlighting pedagogy and existing learning models (often perceived as alternative or experimental, not mainstream), that begins with the cultivation of an ethic of stewardship and conservation in

⁴⁸ Such organizations as *TD Friends of the Environment* have conducted independent research in this area and found a lack of teacher education on EE as a central barrier.

young students (i.e., developing a “habit of mind” (Iverson & James, p. 92) and that progresses to the development of environmental inquiry knowledge and skills (see Natural Curiosity), and onwards towards *mindful participating* (Davis, 2004) in civic-political and socio-ecological change-oriented learning. Although the development of such a framework is beyond the scope of this study and represents a proposed framework that I have yet to encounter in any of the EE literature, a preliminary model is in its early conceptual stages and will be the focus of an emerging collaborative research project in 2015. For the purposes of this thesis, this proposed idea serves as a recommendation being put forth as part of the implications for EE teachers, researchers, and policy-makers to consider.

These youth have put forth ideas based on personal learning experiences that should give all educators, including teacher educators, cause for pause. The youth’s insights also serve as an affirmation of the assertion put forth by Orr (1992) that “all education is environmental education” (p. 52). For the majority of youth in this study, their passion is for the environment, for socio-ecological well-being, and for the building of more sustainable and just communities, today and for the future. However, their stories and insights on formative learning experiences that cultivate student agency almost always transcended EE as a subject itself. Their stories were primarily about what makes for *good education*—an approach to learning that truly engages them, challenges them, prepares them, supports them as knowledgeable and participatory civic-actors in their communities, local and global. Nor are the insights on learning conditions to better engage youth in active citizenship and change-oriented learning put forth in this study, of exclusive value to practitioners, researchers, and policy-makers in the field of EE. These insights are useful for those practitioners and researchers in such pertinent fields to this study as civics education, critical

youth studies, and youth leadership education, as well as positive youth development more generally, to name a few.

Revisiting my Conceptual Framework

For the purposes of this study, my conceptual framework—*3 Kinds of Environmental Action Learning* (see Figure 3 & Appendix H) served as a useful tool and provided an interpretive arc that framed my thesis from start to finish. This model emerged out of my literature review and evolved from over a dozen different drafts. The framework enabled me to address the existing gap I perceived between how EE in the context of agency and action-oriented learning is currently and widely being practiced in Canadian schools and how it is being taken up and examined in recent EE policy and literature. Moreover, in borrowing from the work of Westheimer and Kahne (2004), this model allowed me to further depict the emerging interplay and overlap between the fields of EE and civics with regards to recent trends active citizenship aimed at social (justice), environmental, and political change. Beyond the literature review, my conceptual framework served as analytical tool through which to interpret my data, as well as providing one mode through which findings could be partially presented.

Upon reflecting on this framework throughout the research process, there exist possible conceptual tweaks that I might consider in future work. My model in its current state, although depicting these fields in relation to one another, still delineates them as mirrored hemispheres. In hindsight, my model runs one field up against the other as it draws attention to their overlapping trends around deepening practice towards the cultivation of capacity to effect change in youth. There may be modifications to be made that might serve to better model and support the take up of an eco-civic action learning framework in the context of developing student agency. Furthermore, the idea of there being a third dimension to my framework—a relational axis in which agency moves from an individualist characteristic to a more relational

understanding (i.e., collective action in community and ecological spheres)—could be visually represented and further explored in this framework.

Contributions to Research

Findings from this study contribute to the emerging dialogue on research that is situated within the space where the notions of sustainability and citizenship converge, creating an interplay between EE, social justice learning, and democratic citizenship education. As I have pointed out throughout this thesis, scholars from this body of work are accurately asserting that little research attention to date, be it EE or civics, has focused on the civic-political, social change or activism-oriented aspects of education (see Chawla & Flanders Cushing, 2007; Iverson & James, 2013; Kool, 2012; others). Traditionally EE scholars have stayed within the domain of EE when conducting research. This is changing, as it is in other fields, where lines are blurring in interdisciplinary fashion and “bridging spaces” are emerging (i.e., EE and postcolonial theory (Ng-A-Fook, 2010/2013); EE and complexity theory (Capra, 2000); EE and physical health (Cooper et al., 2010), as examples). As Chawla & Flanders Cushing (2007) accurately assert: “the literature on young people’s political socialization and civic action is highly relevant to environmental education” (p. 441). Of equal relevance too is what ecological thinking, inherent to (not all) EE literature can offer to the field of civics. Together this small but substantial base of research, of which this study is now part, can provide useful insights to EE practitioners and policy-makers focused on moving EE practice in schools beyond stewardship.

More specifically, this study highlights a couple key areas requiring further research and collaboration in order to deepen our collective understanding around environmental action learning, youth eco-civic engagement, student agency, active citizenship, and sustainability. These suggested research areas include: 1) participatory action research by

EE researchers, teachers, and students on examining learning models, including identified learning conditions, that support the development of student agency (Greenwood & Levin, 2007; Reid et al., 2008). This area of research could include the proposed development of a K-12, developmentally appropriate, framework for EE as discussed in the above section; 2) an evidence-based understanding of the (perceived) impediments to EE practitioners in co-creating civic, action-oriented learning experiences with their students in which the locus of change and action is focused more on the ‘collective’ and ‘social’ (as opposed to the individual). This represents a critically related and under researched area;⁴⁹ and finally 3) although some recent and exciting research exists on “self-authoring civic identity” in teachers (Iverson & James, 2013), little research as yet focuses on cultivating teacher as change agent.

A further area of contribution to research involves this study’s intentional focus on specifically examining a *youth perspective* on, albeit a very narrow and un-representative one, perceptions of the concept student agency, and subsequently, on their perceived identity and capacity as young eco-civic leaders. Although ample literature exists on “investigating the environmental characteristics of young people” (i.e., knowledge, attitudes, and/or behaviours), as well as youth’s perspectives on various EE programs and experiences and/or significant life experiences of environmental leaders, little research exists on “how learners themselves make sense of EE” (Lundholm, Hopwood, & Rickinson, 2013, p. 244). This study falls under this latter emerging approach identified by the above authors. Although a few EE researchers have begun to examine environmental learning processes in the context of developing youth capacity for ‘environmental action,’ ‘action competence,’ and/or ‘student agency’ as discussed earlier in

⁴⁹ Such organizations as *TD Friends of the Environment* have conducted independent research in this area and found a lack of teacher education on EE as a central barrier. [Note: This is the same footnote as #51]

this thesis (Chawla & Flanders Cushing, 2007; Schusler et al., 2009), more research is needed that takes up this work from a youth perspective (McKenzie et al., 2014).

Finally, as I previously discussed in the chapter on methodology, part of my rationale for choosing to use aspects of narrative was to use research mindfully as a “place of the political” (Barone, 2009, p. 591). The body of work in which this study is situated is advocating for social, environmental, and political change towards sustainability and socio-ecological well-being. Such change will require a rethinking and reorienting of our current education systems and structures, including teacher education. In advocating for such, we recognize that we are engaging in difficult conversations on how our “environmental unsustainability is determined *by* the economic and political systems we have in place” (McKenzie, 2011, p. 1). To build on this point, in very recent public and popular discourse (see Naomi Klein’s (2014) latest book, *This Changes Everything* as an example), critical dialogue is emerging on how to reappropriate economic (i.e., capitalist) discourse in order to address our current global unsustainable trajectory. This emergent macro narrative to which Klein and others speak (see Atwood, 2008; Berman, 2011; McKibbin, 2014/2010; Rand, 2014) will need to be taken up more broadly in the field of EE, including the extent to which economic ‘players’ are shaping (environmental) educational policy and in turn, potentially informing how youth perceive and apply related curricula and learning experiences.⁵⁰ The above point, briefly made here, represents another area of study requiring further research.

Limitations

This study intentionally focused on a very narrow and un-representative sample of Canadian youth. I wanted to learn how a few dozen young eco-civic leaders perceive their own

⁵⁰ My choice to use past recipients of the Toyota Earth Day Scholarship, a program supported by Toyota Canada, a global car manufacturer, as my study sample pool is not lost on me.

sense of agency and to interpret such findings in relation to my conceptual framework. There are several notable limitations to this study, some previously discussed in Chapter 4 on methodology. First, this research is interpretive. It offers my interpretation of the stories, experiences, and perspectives shared by the youth participants, and how these findings relate to my conceptual framework, which is also interpretive in nature. Second, my sample size was relatively small, there was no control group of sorts, and my sampling population was partially shaped by criteria set out by TEDS (i.e., currently registered in full time studies at a postsecondary institution in Canada and thus represents young persons who value, have succeeded, or have access to the (more) socially valued path of formal education). My sample was extremely homogenous with regards to class, as it represented almost exclusively the voice of young middle class Canadians based on some assumptions made on my part (i.e., almost all participants were registered postsecondary students; all interviewees appeared supported and comfortable with respect to meeting day-to-day needs; personal laptops and communication devices were readily available for corresponding with me).

This study did not hear from students who were not engaged (for whatever reason) in civic life at their schools or in their communities. Nor did it hear from youth who had dropped out or chose not to pursue postsecondary learning. Furthermore, it did not hear from youth who have demonstrated high levels of civic engagement or leadership that was directed towards other foci than the environment (i.e., human rights, equity, social justice, conflict resolution, etc.). Each of the above samples of youth would likely provide critical insights that are highly relevant to this study in exploring the development of student agency from a youth perspective. Questions and criticism may emerge as to how the findings from this study and my conceptual framework as a model, relate to a *true* representative sample of Canadian youth, including those young persons perceived as the “traditionally disengaged.” Studies with ‘disengaged youth,’ as

well as with more diverse samples of youth, which examine whether or not the insights on learning conditions and youth-adult relationships put forth by the youth in this particular study have any resonance, would extend this research.

Furthermore, in choosing to approach this study through an eco-civic lens as opposed to an eco-justice or critical socio-ecological pedagogical lens as discussed in Chapters 1 and 2, the discussions herein contribute little to the important body of research focused on the intersectionalities of issues of class, racialization, gender, sexuality, and other domains of marginalization as part of the well documented centrality of identity roles in orientations to youth agency both within and beyond the field of EE (Barrett, 2007; Ibrahim & Steinberg, 2014; Kennelly, 2011; McKenzie, 2006). My future research interests include conducting further studies with a much larger and representatively diverse sample of Canadian youth that extends the eco-civic and conceptual framework put forth in this study by applying such theoretical lenses as noted above, strengthening the contributions of my work to the field of EE and broader youth studies discourse.

It would also be of interest to extend this study by applying a curriculum policy lens to investigate the relationship between the legacy of the Harris's government and the Common Sense Revolution (1995-1998) in Ontario, in which course choices for Ontario secondary students went from 1200 down to 200, with one of the findings in this study that highlights the formative role particular elective courses played on the perceived development of student agency amongst the youth participants (Borland, 2015; Gidney, 1999; Ibbitson, 1997).

The youth in this study may have been highly engaged, eco-civic leaders, but much of what I heard them say, had to do, simply put, with what makes for good learning. I suspect based on personal experience working with diverse youth—including the so-called “at risk” or traditionally disengaged—in diverse settings (i.e., school classrooms, field-based education

programs, community youth projects, environmental youth organizations and networks, youth-based movements, events, polar expeditions, or northern Inuit or First Nation communities) over the past 15 years, that some of the insights shared by the youth in this study would resonate with other young people. Youth, regardless of class, race, gender, sexuality, (dis)ability or other, identify with seeking an approach to learning that is “personal,” “relevant,” “engaging,” “based on students’ interests,” and that provides an authentic “sense of belonging.”

Less a limitation and more an admission, my analysis of student agency and leadership in the context of environmental action learning did not include the issue of gender. Although partially an oversight of this novice researcher (i.e., I did not ask for gender on the questionnaire), I felt an examination of how gender is taken up in the fields of EE and leadership, for example, was not central to the purposes of this study. Applying a gender lens to future work in the area of environmental action learning would add to and extend discussions emergent from this study. There are however, a couple points that I would like to make here regarding gender. In this study, the gender breakdown of the self-selected participants was seven female to four male amongst the interviewees and eight female to zero male amongst focus group participants. These statistics would lend support to research in the EE literature, as I noted earlier in this thesis, which suggests that girls do demonstrate stronger pro-environmental attitudes, behaviours, and environmental responsibility than boys (Chawla & Flanders Cushing, 2007). Beyond this, no patterns in gender perceptions emerged in my secondary analysis of the findings.

More generally however, gender bias and perceptions have been well documented in the literature with regards to leadership, a popular example being the “Heidi Roizen” case

study experiment done by Cameron Anderson and Francis Flynn in 2006.⁵¹ Consistently it seems, perceptions on leadership success and likeability are positively correlated for men and negatively correlated for women. Such current popular literature as Sheryl Sandberg's book, *Lean in*, or Anne Marie Slaughter's article, *Why Women Can't Have it All*, further speak to the above finding. Work in the field of organizational change suggests a seismic shift is underway with regard to gender domination in leadership, central to the shift from "egosystem to ecosystem awareness" (Scharmer, 2010). Women, it is argued, hold a more relational approach to leadership. As a final point on the topic of gender and the environment broadly speaking, in looking at development theory and trends in recent public discourse, girls/women are seen as central to economic development and to overall ecological and community well-being (i.e., Plan Canada's *Because I am a Girl* movement, *Girl Rising* movement, g(irls)20 summit, girl effect.org, etc.). Widely argued in the public imagination of recent, it is women's 'innate ecosensibility' that is now needed to restore future well-being.

Final Thoughts

This thesis is the culmination of a five-year effort to complete a doctoral degree in education. During this period I became a mother and began the incredible journey of co-raising two beautiful children. I often got asked why I ("absurdly") chose to embark on two such demanding experiences simultaneously. Although often in agreement as to the disheveling nature of my chosen load, my motivation always remained clear. As I type these

⁵¹ This study "took the story of Heidi Roizen, a successful venture capitalist in Silicon Valley and gave to the class the case study of her story. For half the class, they changed the name from Heidi to Howard. After reading the case study, both groups of students saw Heidi and Howard as equally competent; however, they ranked Heidi as being more selfish and unlikeable than Howard. Nothing had been changed in the case study except the gender." Retrieved at <http://squaretwo.org/Sq2ArticleYoungWomenLeaders.html>

last few words of this thesis, an area, just hours from here, received over two metres of snow, an entire winter's load in less than 48 hours. In the past couple weeks, the Intergovernmental Panel on Climate Change (IPCC) released their latest report that joltingly stated: "human influence on the climate system is clear and growing, with impacts observed on all continents. If left unchecked, climate change will increase the likelihood of severe, pervasive and irreversible impacts for people and ecosystems."⁵² And nearly two months ago, we as a global community witnessed the largest (climate) action march in history. On September 21, 2014, millions of people gathered in 2646 climate action marches that took place in 162 countries, with the most substantial being 400,000+ people participating in the New York City *Peoples Climate March*.⁵³ This display of a *global humanitarian movement* (see opening quotation of this thesis) marks the peoples' response to what climate science is unanimously saying (i.e., the IPCC report noted above) and to what we are experiencing more and more as global citizens (i.e., unprecedented weather events like the above example).

As demonstrated in the title of Canadian environmental activist, Tzeporah Berman's latest book, *This Crazy Time* is calling on collective action towards re/imagining and re/writing the new narrative of which Joseph Campbell speaks (see opening quotation to Chapter 4). Now as a mother of two small children, it has become ever more clear to me that now is my time to add my hands, as contribution, to the *all hands on the deck* effort before us. This thesis, and the critical dialogue to which it hopes to contribute, is but one small piece towards this new narrative.

⁵² Retrieved on November 19, 2014 at http://www.ipcc.ch/news_and_events/press_information.shtml

⁵³ (<http://peoplesclimate.org>).⁵³ As world leaders gathered inside the United Nation's headquarters in New York, the United Nations secretary general Ban Ki-moon stated to world leaders: "we all saw a massive peoples march. I hope the leaders of the world listen." United States president Barak Obama responded: "our citizens keep marching. We cannot pretend that we do not hear them. We have to answer the call."

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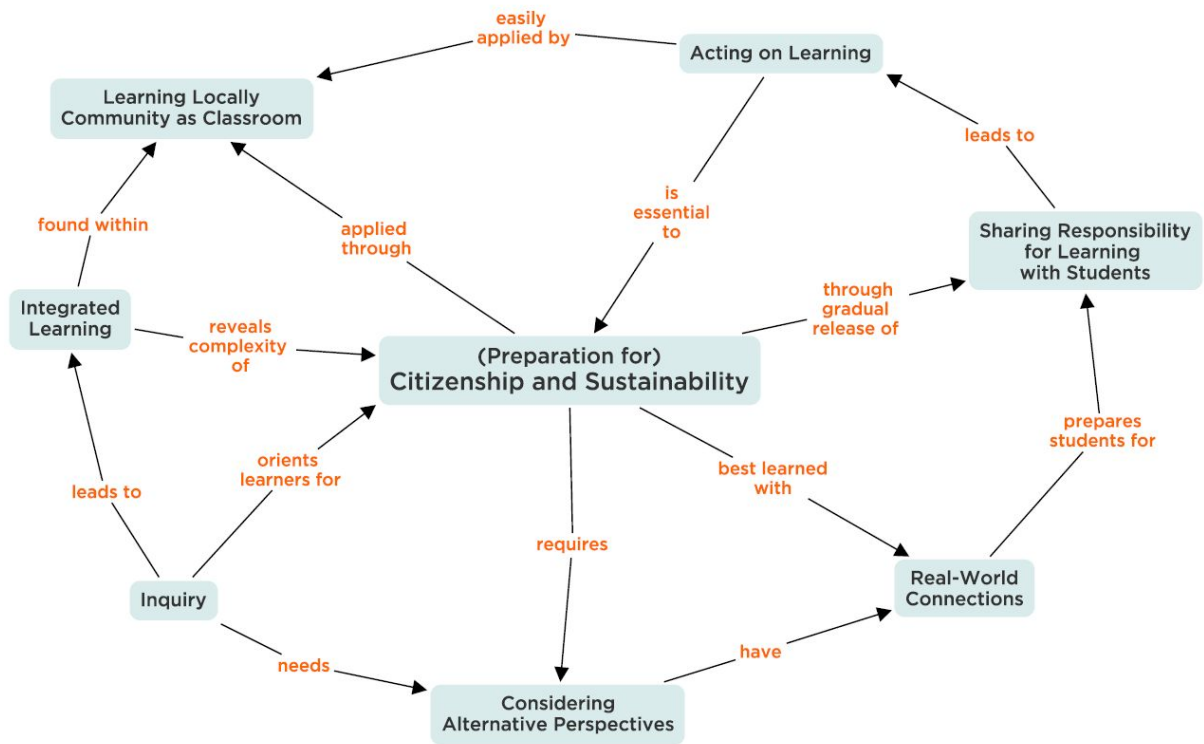
Appendices

APPENDIX A: Photo taken from the International Space Station of the Students on Ice Arctic Floe Edge Expedition (Steve Maclean, 2006).



APPENDIX B: Key Learning Strategies for Environmental Education, Citizenship, and Sustainability

From: Kozak, S. & Elliott, S. (2014). *Connecting the Dots: Key Learning Strategies for Environmental Education, Citizenship, and Sustainability (executive summary)*. Toronto, ON: Learning for a Sustainable Future.



APPENDIX C: Rainbow Framework: Dimensions of Children’s Environmental Involvement

From: Blanchet-Cohen, N. (2008). Taking a stance: child agency across the dimensions of early adolescents’ environmental involvement. *Environmental Education Research*, 14(3), 257-272.



APPENDIX D: Relationship between Youth Environmental Action and Individual and Community Development

From: Schusler, T., Krasny, M., Peters, S., & D. Decker. (2009). Developing citizens and communities through youth environmental action. *Environmental Education Research*, 15(1), 111-127.

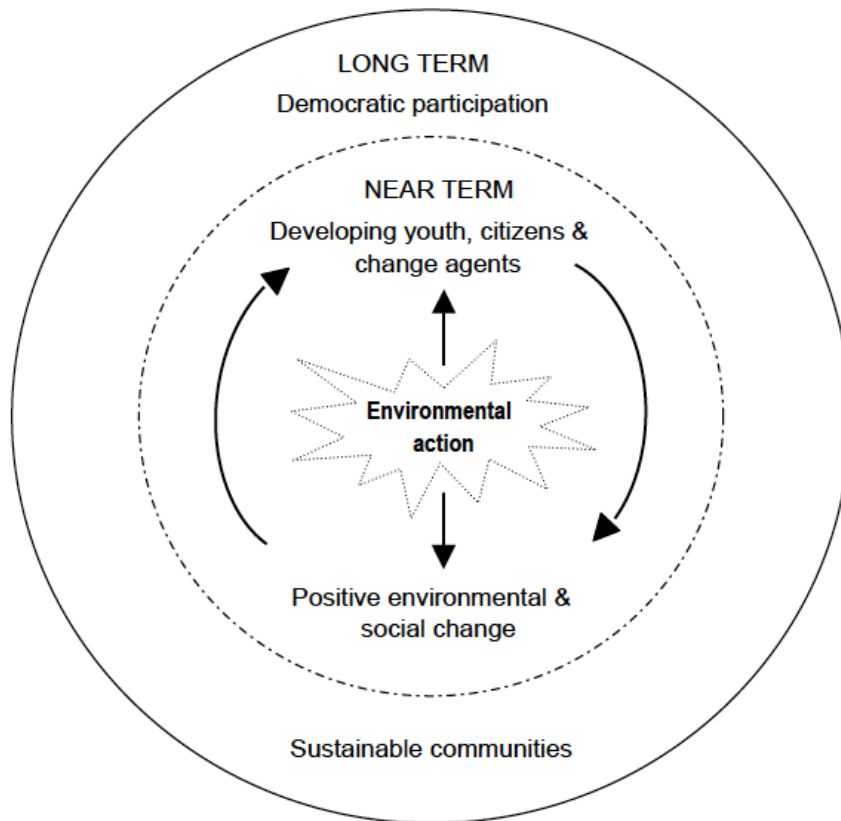


Figure 1. Relationship of youth participation in environmental action to individual and community development, including a positive feedback loop between them.

APPENDIX E: Conditions that foster responsible environmental behaviour, civic action, individual and collective competence (Table 1 below) & Practical application of research findings for environmental educators (Table 2 below)

From: Chawla, L. & Flanders Cushing, D. (2007). Education for strategic environmental behaviour. *Environmental Education Research*, 13(4), 437-452.

Table 1: Conditions that foster responsible environmental behavior, civic action, the development of individual competence and collective competence

	Responsible Environmental Behavior	Civic Action	Sense of Individual Competence	Collective Competence
Role Models and Mentors	<ul style="list-style-type: none"> Parents and family members as role models, as well as teachers and friends 	<ul style="list-style-type: none"> Parents and other family members as role models 	<ul style="list-style-type: none"> Vicarious experiences through role models and mentors Instructive modeling 	<ul style="list-style-type: none"> Fellow group members as role models
Everyday Life Experiences	<ul style="list-style-type: none"> Positive experiences of nature Observation of the destruction of valued places Reading books on nature and the environment 	<ul style="list-style-type: none"> Confrontations with social inequities and environmental problems Opportunities for collaborative decision making from early childhood on Having one's voice valued Community service opportunities 		
Participation in Organizations	<ul style="list-style-type: none"> Participation in environmental clubs and organizations, often over an extended period of time 	<ul style="list-style-type: none"> Participation in school councils, youth boards, Model UN, and service organizations 		<ul style="list-style-type: none"> Participation in groups formed around shared goals and interests
Discussion		<ul style="list-style-type: none"> Discussion of civic issues 	<ul style="list-style-type: none"> Verbalizing strategies for success 	<ul style="list-style-type: none"> Discussion and conflict resolution
Achieving Success		<ul style="list-style-type: none"> Opportunities to see meaningful gains from collective action 	<ul style="list-style-type: none"> Mastery experiences Interim sub-goals on the way to distant goals 	<ul style="list-style-type: none"> Opportunities to taste success through the accomplishment of shared goals
Social Network		<ul style="list-style-type: none"> Supportive social network 		<ul style="list-style-type: none"> Trusting group members, developing personal relationships, being with friends and having fun
Education	<ul style="list-style-type: none"> Knowledge about environmental issues 	<ul style="list-style-type: none"> Knowledge about public issues and how government works Community-based projects 		
Development of Action Skills	<ul style="list-style-type: none"> Practicing environmental action skills 	<ul style="list-style-type: none"> Practicing activism 	<ul style="list-style-type: none"> Guided practice 	<ul style="list-style-type: none"> Coordination of actions and unified effort
Personal Significance	<ul style="list-style-type: none"> Taking ownership of environmental issues 	<ul style="list-style-type: none"> Developing a civic identity 	<ul style="list-style-type: none"> Personally significant goals Taking initiative 	<ul style="list-style-type: none"> Projects initiated by participants

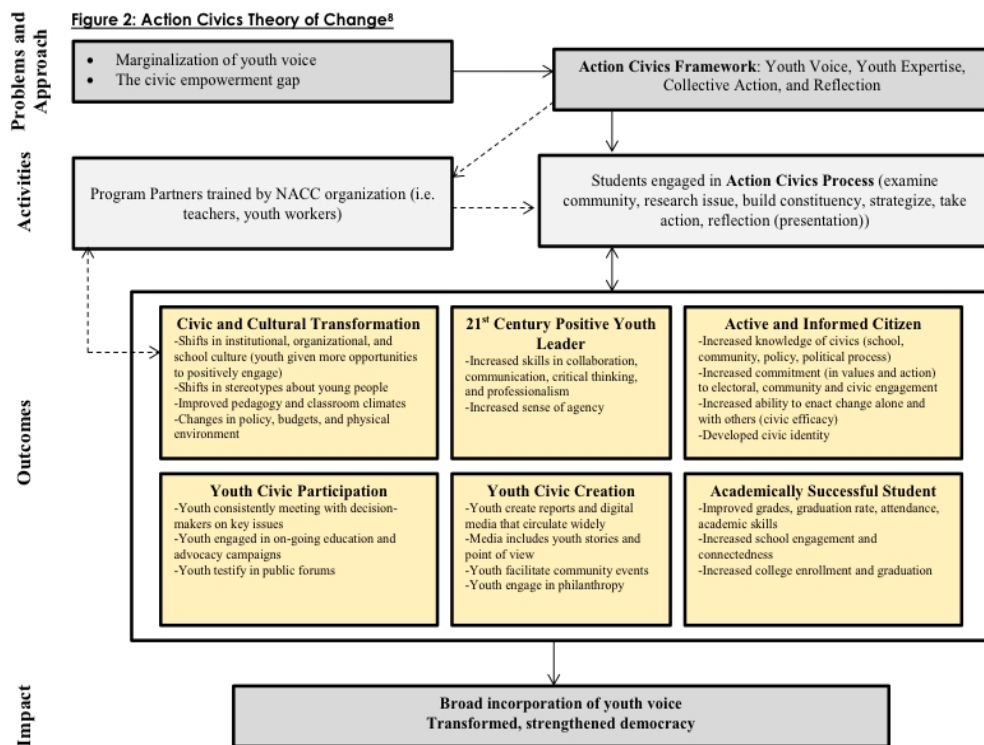
APPENDIX E (continued)

Table 2: Practical application of research findings for environmental educators

	Practical Applications for Environmental Educators
Role Models and Mentors	<ul style="list-style-type: none"> • Engage both peers and adults as role models • Create opportunities for peer group exchanges • Encourage role models to practice instructive modeling by demonstrating skills of graduated difficulty and verbalizing strategies for success
Everyday Life Experiences	<ul style="list-style-type: none"> • Make time for children to experience nature, individually and as a group, enabling them to develop bonds with nature • Practice democratic decision-making in the classroom • Provide opportunities for everyone's voice to be heard and valued
Participation in Organizations	<ul style="list-style-type: none"> • Build club and organization activities around the shared values of the group and personal interests of individual participants
Discussion	<ul style="list-style-type: none"> • Make time for the discussion of environmental issues
Achieving Success	<ul style="list-style-type: none"> • Help participants set goals and sub-goals that will provide opportunities to taste success
Social Network	<ul style="list-style-type: none"> • Create a supportive social network for children and youth to build trust in others and have fun during the process
Age-appropriate Initiatives	<ul style="list-style-type: none"> • Determine the scope of environmental activities based on the developmental stage of the child, with a focus on the nearby environment with younger children, expanding to the local community by middle childhood and eventually global connections
Development of Action Skills	<ul style="list-style-type: none"> • Enable children and youth to test their environmental action skills, applying the principles of guided practice
Personal Significance	<ul style="list-style-type: none"> • Provide opportunities for children and youth to initiate environmental actions themselves
Parent Involvement	<ul style="list-style-type: none"> • Reach out to parents to convey the importance of democratic parenting • Encourage parents to take an active and supportive role in their child's experiences of nature and participation in community projects

APPENDIX F: National Action Civics Collaborative’s ‘Theory of Change’ Framework

From: Gingold, J. (2013). Building on Evidence-Based Practice of Action Civics: The current state of assessments and recommendations for the future. *CIRCLE Working Paper #78. The Centre for Information & Research on Civic Learning & Engagement.*



⁸ More discussion of theory of change forthcoming in Gingold and Levinson (in process)

APPENDIX G: Kinds of Citizens Framework

From: Westheimer, J. & Kahne, J. (2004). *Educating the “Good” Citizen: Political Choices and Pedagogical Goals*. Retrieved 10 September 2012, from <http://www.democraticdialogue.com/DDpdfs/WestheimerKahnePS.pdf>

Table 1. Kinds of Citizens

	Personally Responsible Citizen	Participatory Citizen	Social-Justice Oriented Citizen
DESCRIPTION	<ul style="list-style-type: none"> Acts responsibly in their community Works and pays taxes Picks up litter, recycles, and gives blood Helps those in need, lends a hand during times of crisis Obeys laws 	<ul style="list-style-type: none"> Active member of community organizations and/or improvement efforts Organizes community efforts to care for those in need, promote economic development, or clean up environment Knows how government agencies work Knows strategies for accomplishing collective tasks 	<ul style="list-style-type: none"> Critically assesses social, political, and economic structures Explores strategies for change that address root causes of problems Knows about social movements and how to effect systemic change Seeks out and addresses areas of injustice
SAMPLE ACTION	<ul style="list-style-type: none"> Contributes food to a food drive 	<ul style="list-style-type: none"> Helps to organize a food drive 	<ul style="list-style-type: none"> Explores why people are hungry and acts to solve root causes
CORE ASSUMPTIONS	<ul style="list-style-type: none"> To solve social problems and improve society, citizens must have good character; they must be honest, responsible, and law-abiding members of the community 	<ul style="list-style-type: none"> To solve social problems and improve society, citizens must actively participate and take leadership positions within established systems and community structures 	<ul style="list-style-type: none"> To solve social problems and improve society, citizens must question and change established systems and structures when they reproduce patterns of injustice over time

From: Westheimer, J. & Kahne, J. (2004). What kind of citizen? The politics of educating for democracy. American Educational Research Journal. 41(2), 237-269.

APPENDIX H: Three Kinds of Environmental Action Learning

Note: The below table accompanies Figure 3 (visual schematic of conceptual framework)

	Ecologically Responsible Stewarding	Participating in local eco-civic action	Effecting socio-ecological change
Description	<p>Personal acts focused on individual behaviour change</p> <p>Participates in action project learning and community service focused on environmental stewardship</p> <p>Student engagement may be teacher initiated or student led</p> <p>Cares about the environment</p>	<p>Personal acts focused on collective behaviour change and localized social change</p> <p>Organizes social action community projects aimed at implementing change locally</p> <p>Student initiated w/out teacher; community supported</p> <p>Cares about the environment; supports social change</p>	<p>Collective acts focused on systemic change</p> <p>Critical understanding of how ecological problems are socially constructed and culturally produced</p> <p>Critical understanding of how systems and structures are produced and how they can reproduce patterns of social/ ecological injustices over time</p> <p>Cares about the environment; understands social movements; knows how to effect systemic change</p>
Sample Action (i.e., Practice)	<p>Participates in community clean ups; recycling and composting programs; litterless lunches; school gardens</p> <p>Uses reusable water bottle; cloth bags; second hand clothing</p>	<p>Organizes community-based behaviour changing campaigns such as bottled water or plastic bag banning, no idling, eating local</p> <p>Active member of community- based eco-organizations</p>	<p>Examines the social and cultural root causes of ecological problems through relational understandings</p> <p>Acts to solve root causes</p>
Assumptions	<p>To solve environmental problems students must be good stewards and personally responsible citizens</p>	<p>To solve environmental problems students must actively participate and take leadership positions within established systems and community structures</p>	<p>To solve ecological problems students must question and change established systems and structures which reproduce patterns of socio-ecological injustices over time</p>
Sample Pedagogy	<p>Environmental literacy; action project learning; outdoor experiential learning</p>	<p>social action project learning; inquiry-based learning; place-based learning</p>	<p>socio-ecological education; social/ecojustice education; ecopedagogy; ecological literacy; critical place pedagogy</p>

Note: Above table is based upon an adaptation of Westheimer & Kahne’s “**Three Kinds of Citizens**” framework in Westheimer, J. & Kahne, J. (2004). *Educating the “Good” Citizen: Political Choices and Pedagogical Goals*. Retrieved 10 September 2012, from <http://www.democraticdialogue.com/DDpdfs/WestheimerKahnePS.pdf>

APPENDIX I: Toyota Earth Day Scholarship Eligibility and Selection Criteria⁵⁴

Eligibility

The Toyota Earth Day Scholarship Program will consider candidates who:

1. Are currently in their graduating year or graduated in the last two years from a:
 - Canadian high school; or
 - Quebec Cegep.
2. Are entering, for the 2013-2014 academic year, their first year of full-time studies at:
 - An accredited Canadian college or university; or
 - A Quebec accredited collegial institution.
3. Are a Canadian citizen, Permanent Resident (landed immigrant) or on Refugee Status.
4. Have demonstrated outstanding environmental commitment, community service and leadership during the course of their studies.
5. Maintain a high level of academic achievement.
6. Are not an employee or immediate family member of an employee of Toyota Canada Inc. and its Dealers, Toyota Canada Foundation, Earth Day Canada or Panasonic Canada Inc.
7. Fulfill the requirements of the application package.

Selection Criteria

1. Demonstrated commitment to and involvement in community environmental issues
2. Record of participation in volunteer and extracurricular activity at school and in the community
3. Demonstrated capacity for leadership
4. Letters of recommendation
5. Evaluation of candidate's essay and self-assessment
6. Candidate's outstanding potential as an environmental leader
7. Academic achievement

⁵⁴ The eligibility and selection criteria was determined by the TEDS program staff and is taken directly from the Toyota Earth Day Scholarship website at <http://www.earthday.ca/scholarship/eligibility.php>

APPENDIX J: Letter of Invitation to Participants

Letter of Invitation

Dear past finalists and recipients of the Toyota Earth Day Scholarship (TEDS),

My name is Lisa Glithero and I have served as a national judge for TEDS from 2010 to the present. It is an opportunity that I continue to enjoy immensely as I learn about the inspiring work being done by young eco-civic leaders in Canada. I am a former classroom school teacher and more recently a teachers college educator (2006-present), Education Director for *Students on Ice*, a Canadian-based organization that takes high school students on learning expeditions to the Polar Regions (2004-2008), and a national keynote speaker on environmental education and youth civic engagement (2006-present).

Currently, I am enrolled in full time doctoral studies in the Faculty of Education at the University of Ottawa. My research is exploring student agency in the context of environmental and civics education in Canadian schools. The study I am conducting examines how young eco-civic leaders like you interpret your own capacity to make change and improve society. I am also interested in your thoughts on the kinds of learning experiences that helped you become an accomplished eco-civic leader. Your insights, I suggest, will help educators and scholars to not just theorize about systemic and socio-ecological change but to actually put it into practice.

If you would like to participate in this study, please send me an email at I will then in turn, electronically 'invite' you to the on-line questionnaire site. Here you will find an on-line consent form outlining participants' rights and study expectations, followed by the questionnaire. The on-line questionnaire will take approximately 30 minutes to complete and will be conducted in English only. The on-line questionnaire will be open to interested participants until **Sunday September 29**. Toyota Earth Day Scholarship Program supports this research study and is involved insofar as agreeing to send out this letter of invitation to all its scholarship finalists between the years 2007 and 2013.

Thank you for your consideration of participating in this exciting and collaborative research initiative. I, along with other researchers and educators, have much to learn from you! If you have any questions or concerns please do not hesitate to contact me directly at

Sincerely,

Lisa Glithero
PhD Candidate
Faculty of Education
University of Ottawa

APPENDIX K: Online Questionnaire (including online consent form)

Exploring the Development of Student Agency From the Perspective of Young Canadian Eco-Civic Leaders

The questionnaire should take you about 30 minutes. All responses will be kept confidential. Thank you for your participation!

Consent Form, Terms Conditions

Hi there! Thanks for your interest in participating in this study. Please read through carefully this consent form. By checking the "I agree" checkbox below, your consent to participate is implied. I advise you to print a copy of this consent form to keep for your personal records.

The study and participants' rights:

The purpose of this study is to explore young eco-civic leaders' perspectives of their own capacity to make change and improve society, including their perspectives on learning experiences they identify as having developed their own capacity to make change in society.

My participation in this research is completely voluntary. I am free to withdraw at any point. I am also allowed to refuse to answer any questions. If I choose to stop participating, or refuse to answer certain questions, there will be no negative consequences. I understand that my identity will be anonymous when completing this questionnaire. In turn, my identity will not be divulged in the data or in any published work that makes use of this questionnaire data. However, due to the public nature of being recognized as a past Toyota Earth Day Scholarship recipient, I understand anonymity and confidentiality cannot be guaranteed.

There are no risks associated with involvement in this project aside from those experienced in everyday life. There are many benefits to this study. This is an opportunity to engage, explore, and reflect on my own voice, actions, and growth as a young eco-civic leader.

All transcripts and documents collected will be stored as electronic files on a password computer made only accessible to the principal researcher and as hard copies securely stored in my supervisor's locked office on campus. All names and identifying features will be removed during the transcription process. The data will be analyzed and processed using computer software and the findings will be saved electronically. Data will be stored securely for a period of five years beyond the life of the project at which time electronic files will be deleted and hard copy files shredded.

Should I have any questions about this project, I can contact Lisa Glithero by email at or her supervisor, Dr. Joel Westheimer, by email at If I have any questions regarding the ethical conduct of this study, I may contact the Office of Research Ethics and Integrity, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON, K1N 6N5. Tel.: (613) 562-5387. Email: ethics@uottawa.ca.



I agree

Questionnaire

Part A: Your personal background

Question 1: In what year were you a Toyota Earth Day Scholarship (TEDS) recipient or finalist?

Question 2: How did you hear about TEDS?

Question 3: Why did you apply for a TEDS?

Question 4: Did someone help you put together your TEDS application? If yes, who?

Question 5: Were you a regional finalist, a regional scholarship recipient or a national scholarship recipient?

Question 6: From what region of Canada were you from at the time of your TEDS recognition?

Question 7: At the time of your TEDS recognition were you living in an urban or rural place?

Question 8: What was the population of your home city or town?

Question 9: What is your current age?

Question 10: In terms of schooling or broader education, what are you doing now?

Question 11: In terms of work, paid or volunteer, what are you doing now?

Question 12: In terms of personal interests, what are you doing now?

Question 13: Do you identify yourself as an eco-civic leader? If yes, please explain. If no, please explain.

Part B: Your eco-civic leadership

Question 14: What do you think about your own capacity to 'make change' in society?

Question 15: In the context of formal schooling, what learning experiences have had the biggest impact on you as someone who has been identified as an eco-civic leader?

Question 16: What learning experiences outside of formal schooling have had the biggest impact on you as someone who has been identified as an eco-civic leader?

APPENDIX K (continued)

Question 17: Can you give me an example of an action project or community initiative that you think best reflects your capacity to ‘make change?’

Question 18: When you think about educational change in Canadian schools around ecological sustainability, what inspires you?

Part C: Your perspective on concepts

Question 19: What does ‘student agency’ or student as ‘change agent’ mean to you?

Question 20: What does ‘environmental action learning’ mean to you?

Question 21: What do the terms ‘social change’ or ‘socio-ecological change’ mean to you?

Question 22: Are the above terms familiar to you and a part of the culture of your current learning and/or work setting(s)?

Question 23: How do any of the above terms relate to one another?

Questionnaire complete—thank you! I am keen to have one-on-one interviews with 10 past recipients or finalists of a Toyota Earth Day Scholarship. The purpose of the interview is to explore in more depth some of your questionnaire responses. The 10 interviewees will be selected based on a first come/first served approach, although some consideration will also be given to the selection of a diverse sample that is representative of TEDS winners (i.e., gender ratio, rural/urban ratio). The interviews will be approximately 60 minutes in length. If you are interested in participating in an interview please contact me by email at

Thanks again for your participation in this study!

Sincerely,

Lisa



I am interested in participating in an interview will email Lisa at my earliest convenience.

APPENDIX L: Questionnaire Participants' Demographic Profile

	<i>Age</i>	<i>Gender</i> ⁵⁵	<i>Geographic Area</i>	<i>Rural/Urban (identify)</i>	<i>Population</i>
1	24		Quebec	Rural	<20,000
2	19	M	Western	Rural	<20,000
3	18		Ontario	Urban	<500,000
4	21		Quebec	Urban	<500,000
5	24		Atlantic	Rural	<20,000
6	20		BC/North	Urban	<1 million
7	18	F	Atlantic	Urban	<20,000
8	18		Atlantic	Rural	<20,000
9	17		Western	Urban	>1 million
10	18		Western	Rural	<20,000
11	18		Ontario	Rural	<20,000
12	23	F	Ontario	Urban	<1 million
13	19		BC/North	Urban	<100,000
14	20		BC/North	Rural	<20,000
15	22		Western	Urban	<1million
16	18	M	Ontario	Urban	<1 million
17	22		Western	Rural	<20,000
18	19		Western	Urban	<1 million
19	20	M	Quebec	Urban	>1 million
20	19		BC/North	Urban	<100,000
21	23		Western	Urban	<20,000
22	19		Ontario	Rural	<500,000
23	20	F	Ontario	Urban	<1 million
24	23		BC/North	Urban	<1 million
25	20		Ontario	Urban	<20,000
26	18		BC/North	Rural	<500,000
27	19		Western	Urban	>1 million
28	20		Quebec	Urban	<1 million
29	18	F	Ontario	Urban	<100,000
30	19		Atlantic	Rural	<100,000
31	21	M	Ontario	Urban	<500,000
32	16	F	Ontario	Urban	<100,000
33	21		Quebec	Urban	<500,000
34	16	F	Ontario	Urban	>1 million

⁵⁵ As researcher I had a disappointing oversight insofar as I forgot to put gender identification in the questionnaire. Thus gender identification, as noted in Table above, is only available for questionnaire participants who then went on to participant in an interview. See concluding chapter (Chapter 8) for a brief discussion on gender in the context of this research.

APPENDIX M: Consent Form for Interviews

Consent Form for Interview

Exploring the Development of Student Agency From the Perspective of Young Canadian Eco-Civic Leaders

By signing this consent form, I agree to participate in a one-on-one interview with the principal investigator of this research study, Lisa Glithero. I am aware that the interview will last approximately 60 minutes. My participation in this research is completely voluntary. I am free to withdraw at any point. I can ask questions at any time, including during the research. I am also allowed to refuse to answer any questions. If I choose to stop participating, or refuse to answer certain questions, there will be no negative consequences. I am aware that the interview will be recorded using a digital recording device. I have been assured by the researcher that my identity will be protected by a pseudonym in the data or in any published work that makes use of this data and the contents of my participation will remain confidential if I so choose (see check box below). However, due to the public nature of being recognized as a past Toyota Earth Day Scholarship recipient, I understand anonymity and confidentiality cannot be guaranteed. If this is a concern, I have the right to withdraw at any point and any data collected up to this point will be destroyed.

There are no risks associated with involvement in this project aside from those experienced in everyday life. There are many benefits to this study. This is an opportunity to engage, explore, and reflect on my own voice, actions, and growth as a young eco-civic leader.

The interviews will be digitally recorded and stored as electronic sound files on a password computer made only accessible to the principal researcher. All transcripts and documents collected will be stored as electronic files as above and as hard copies securely stored in my supervisor's locked office on campus. All names and identifying features will be removed during the transcription process if anonymity is requested (see check box below). The data will be analyzed and processed using computer software and the findings will be saved electronically. Data will be stored securely for a period of five years beyond the life of the project at which time electronic files will be deleted and hard copy files shredded.

I have been made aware by the researcher that I will be given the opportunity to review interview transcripts. They will be sent to me via email using an online format with password protection (i.e., dropbox).

I, _____ agree to participate in the above research study conducted by Lisa Glithero, PhD Candidate of the Faculty of Education at the University of Ottawa.

Please check the appropriate box below:

- I wish to remain anonymous and for my identity to be protected by a pseudonym
 I wish to be identified in the final report and in any published work that makes use of this data

APPENDIX M (continued)

Should I have any questions about this project, I can contact Lisa Glithero by email at or her supervisor, Dr. Joel Westheimer, by email at.....

If I have any questions regarding the ethical conduct of this study, I may contact the Office of Research Ethics and Integrity, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON, K1N 6N5. Tel.: (613) 562-5387. Email: ethics@uottawa.ca.
There are two copies of the consent form, one of which is mine to keep.

Participant's signature: _____

Date: _____

Researcher's signature: _____

Date: _____

APPENDIX N: Interview Guide

Interview Guide

Part A: Exploring learning experiences

In the questionnaire you completed, you identified “X” as a formative learning experience in developing your own sense of student agency and your capacity to make change. I would like to learn more from you about this experience.

1. Who were the key people and their role or relationship to you and the learning experience?
2. How would you describe the learning setting?
3. How would you describe the learning process?
4. Was there a style or an approach to the learning process that helped frame or guide the experience?
5. What role did you play in the learning process?

Part B: Exploring perspectives of student agency

In the questionnaire, you interpret ‘student agency’ as “X”. I’d like to explore your interpretation in relation to two ideas: first, the idea of students becoming ecologically responsible stewards; and second, the idea of students as change agents.

1. How do ‘student agency’ and ‘student as environmental stewards’ relate to one another?
2. How do ‘student agency’ and student as ‘change agent’ relate to one another?
3. How do these two ideas –‘student as ecologically responsible steward’ and ‘student as change agent’ relate to one another?
4. If you were to draw this relationship what might it look like?
5. If you were to give this drawing a title what might it be?

Part C: Exploring perspectives of change and student capacity to make change

In the questionnaire, you interpret ‘social change’ as “X.” You describe ‘socio-ecological change’ as “X.” I am interested in learning more about your thoughts on the relationship between these concepts.

1. In the questionnaire, you described how these terms relate to one another as “X.” Can you elaborate further?
2. How do these concepts (either on their own or collectively) relate to your thoughts on student agency as shared moments ago?
3. In the questionnaire, you described your own capacity to make change in these words “X.” Can you elaborate further?
4. What do you see as the current aim or objective of environmental education or environmental learning in Canadian schooling?
5. In your view, is developing in students a capacity to make change the focus of EE? If yes, what kind of change(s)? If no, then what is the focus?
6. In your view, what is working well within our schools and our education system with regards to developing students’ capacity to make change?
7. In your view, what have been for you some of the structural and systematic challenges or impediments to developing students’ capacity to make change?

APPENDIX N (continued)

8. In the context of schooling, how do you think we can better evolve the way young people make change?
9. Do you see social media as a lever from which youth can make change?
 - a. What other levers do youth have or can best access to make change?
10. Once ‘student agency’—or the capacity to make change in society— is developed, how do you feel it can be supported and sustained in young people?

Part D: Exploring changes from time of TEDS application to now

1. Winning a TEDS scholarship is a certain kind of stamp of ‘success.’ Would you agree?
2. Did this award or ‘stamp’ lead to more activism and/or change how you thought about your own agency?
3. Did you stay engaged as a ‘young eco-civic leader?’ If yes, how did this award change your ‘leadership’ and capacity to make change?
4. Were you engaged in social media at the time of your TEDS application?
 - a. Are you more or less engaged in use of social media now?

Part E: Exploring additional thoughts

1. Is there anything else you would like to add relating to anything that we have discussed throughout this interview?
2. Is there anything you hope that my research might help with, either in your schooling/studies or work/personal initiatives?
3. Do you have any questions that you would like to ask me?

APPENDIX O: Interview Participants' Profile

	<i>Name</i> ⁵⁶	<i>Age</i>	<i>Gender</i>	<i>Academic Status</i>
1	Stephen	19	M	- 3 rd year undergraduate student at University of Alberta enrolled in a Bachelor of Science in Engineering Physics
2	Lucy	18	F	- 1 st year undergraduate student at Mount Allison University enrolled in Environmental Studies
3	Julie	23	F	- a Bachelor of Education student at Lakehead University
4	Ben	18	M	- 1 st year undergraduate student at University of Waterloo enrolled in Environmental Engineering
5	Xavier	20	M	- 2 nd year undergraduate student enrolled in Bachelor of Nutrition program in Montreal
6	Franny	20	F	- 3 rd year undergraduate student at University of Waterloo enrolled in International Development with a minor in Environmental & Resource Studies, as well as an Environmental Assessment Diploma, a Global Experience Certificate & a French Language Certificate
7	Stacy	18	F	- 1 st year undergraduate student at University of Western studying economics
8	Noah	21	M	- 4 th year undergraduate student at University of Waterloo enrolled in Geography and Environmental Management with minors in Biology & Environmental Economics
9	Anna	16	F	- Grade 11 high school student in Southern Ontario and actively working on online MOOC
10	Rosie	16	F	- Grade 11 high school student in Southern Ontario
11	Karen	19	F	- 1 st year undergraduate student at University of Toronto enrolled in Bachelor of Fine Arts

⁵⁶ The order of interviewees in this table follows the order of the questionnaire participants listed in Appendix L on page 236. In other words, interviewees 1-10 in this table align with questionnaire participants 2, 7, 12, 16, 19, 23, 29, 31, 32 and 34 in Appendix L. Interviewee 11 in this table represents the one interviewee that did not complete the questionnaire.

APPENDIX P: Focus Group Description at *Earth Day Canada's Youth Conference*

Beyond Green Earth Day Youth Summit
Toronto, ON
Saturday October 26th
200pm- 330pm
Lisa Glithero

PhD Action Research Focus Group: Exploring the development of student agency with young eco-civic leaders in Canada

As part of a doctoral research project led by Lisa Glithero with the Faculty of Education at the University of Ottawa, this co-participatory focus group-oriented session aims to investigate how Canadian youth, who are engaged as eco-civic leaders, perceive their own sense of agency. What are the kinds of learning experiences (formal schooling or otherwise) that you identify as having developed your capacity to make change? What knowledge and skills are needed in youth to drive social change around sustainability? What are the entry points or toeholds that youth can best access or intervene with to make change? What are the challenges and/or structural/systematic barriers that you face when trying to make change? These are the types of questions that we will collectively and creatively explore. Graphic recording tools will be used to help us explore the co-creation of a model or model ideas that could be used to help educators, researchers, and other youth gain a better understanding of how to develop capacity in youth to make change in society. If there are existing models out there that focus on youth action civics, environmental action learning and social change to which you are drawn, bring these models and/or ideas with you to the focus group and be prepared to share with the group what you like about them.

In the context of this research project the notion of 'student agency' relates to the emergent trend around environmental action learning aimed at stewardship and civic engagement within the field of environmental education (EE) over the past decade. **Note:** a consent form outlining participants' rights and doctoral study expectations will be reviewed prior to the start of the focus group session. *Medium level of prior knowledge required. | Facilitated by Lisa Glithero

APPENDIX Q: Consent Form for Focus Group

Consent Form for Focus Group

Exploring the Development of Student Agency From the Perspectives of Young Canadian Eco-Civic Leaders

My participation in this research is completely voluntary. I am free to withdraw at any point. I can ask questions at any time, including during the research. I am also allowed to refuse to answer any questions. If I choose to stop participating, or refuse to answer certain questions, there will be no negative consequences.

I understand that by choosing to participate in the collaborative discussion forum (phase 3 of study) then my anonymity cannot be maintained amongst my peer participants due to the nature of the face-to-face forum. This stated, I agree to respect the confidentiality of what is discussed in the collaborative discussion forum and by whom. Beyond peer participants in the focus group, I have been assured by the researcher that my privacy will be safeguarded insofar as my identity being protected by a pseudonym in the data or in any published work that makes use of this data. I have the right to withdraw at any point.

There are no risks associated with involvement in this project aside from those experienced in everyday life. There are many benefits to this study. This is an opportunity to engage, explore, and reflect on my own voice, actions, and growth as a young eco-civic leader.

The collaborative discussion will be digitally recorded and stored as electronic sound files on a password computer made only accessible to the principal researcher. All transcripts and documents collected will be stored as electronic files as above and as hard copies securely stored in my supervisor's locked office on campus. All names and identifying features will be removed during the transcription process if anonymity is requested (see check box below). The data will be analyzed and processed using computer software and the findings will be saved electronically. Data will be stored securely for a period of five years beyond the life of the project at which time electronic files will be deleted and hard copy files shredded.

I, _____ agree to participate in the above research study conducted by Lisa Glithero, PhD Candidate of the Faculty of Education at the University of Ottawa.

Should I have any questions about this project, I can contact Lisa Glithero by email at.....or her supervisor, Dr. Joel Westheimer, by email at

If I have any questions regarding the ethical conduct of this study, I may contact the Office of Research Ethics and Integrity, University of Ottawa, Tabaret Hall, 550

APPENDIX Q (continued)

Cumberland Street, Room 154, Ottawa, ON, K1N 6N5. Tel.: (613) 562-5387. Email: ethics@uottawa.ca.

There are two copies of the consent form, one of which is mine to keep.

Participant's signature: _____

Date: _____

Researcher's signature: _____

Date: _____

APPENDIX R: Focus Group Guide

Beyond Green Youth Summit
Toronto, October 26, 2013
Focus Group Guide

Note: This guide was borrowed and adapted from the learning circle format used in the doctoral research of Kristin Reimer on restorative justice practices in schools. See Reimer, K. (in draft). *The Politics of Restorative Justice in Schools: Lessons from Students' Perspectives in one Scottish and one Canadian School*.

Part One: Sharing Circle

In this session, I want to learn from you about your experiences as a young eco-civic leader or environmental leader – be that in your school, community or beyond. Together you hold a great deal of knowledge and experience about how youth go about making change. So how this circle works: I'll pose a question and then we'll move around the circle sequentially. Each person is asked to answer the question for themselves. You can add to what a previous person has said or start with a new line of thinking. After each round is finished, we'll have time where people can respond to what someone else said, ask questions, add to what they said, etc. I'll ask you to keep your initial comments to a few minutes so that there's time to expand on everything in the end. The guidelines are probably familiar to you: respect for all; one person speaks at a time; listen actively; everyone has the right to pass; and everyone has the right to contribute equally to the work of this session. Hopefully what emerges not only has benefit to me and my research but also for you and your own understanding and work around eco-civic engagement and youth leadership. How does this sound to everyone?

Round 1: Name, Grade, School and how you are connected to environmental youth leadership (i.e., school eco club, community ngo, interest, etc)

Round 2: do you identify as an environmental leader, eco-civic leader and/or a change agent?

Round 3: What does student agency mean to you?

Round 4: how do you perceive your own capacity to make change? What kind of change?

Part Two: Co-creative Process

1. What competencies/capacities (knowledge, skills, other) do youth need to develop in order to be 'change agents'/make change (ecological/social)?
 - a. Generate a list (graffiti style, relational graphic, other)
 - b. Unpack each competency/capacity (using tree or other)
2. What are the toeholds (i.e. entry points) youth can best access or intervene with to make change? (if time)

APPENDIX S: Focus group participants' Profile

	<i>Name</i> ⁵⁷	<i>Age</i>	<i>Gender</i> ⁵⁸	<i>Academic Status</i>
1*	Rosie	16	F	- Grade 11 high school student in Southern Ontario
2	Natasha	14	F	- Grade 9 high school student in Southern Ontario
3*	Karen	19	F	- 1 st year undergraduate student at University of Toronto enrolled in Bachelor of Fine Arts
4*	Anna	16	F	- Grade 11 high school student in Southern Ontario and actively working on online MOOC
5	Kristin	22	F	- 4 th year undergraduate student at University of Toronto studying psychology and economics
6	Vanessa	16	F	- Grade 11 high school student in Southern Ontario
7	Amy	16	F	- Grade 11 high school student in Southern Ontario
8	Ivy	15	F	- Grade 10 high school student in Southern Ontario

⁵⁷ There was an additional 6 participants in the focus group. However they were each older than 24 years of age and thus were not within the participant age range criteria for this study. Of the 8 focus group youth outlined in this table, individuals 1, 3, and 4 (see * above) also participated in an interview. Individuals 1 and 4 also completed the online questionnaire.

⁵⁸ Interesting to note that all 8 self-selected focus group participants were female. This will be discussed in Chapter 8.

APPENDIX T: Data Coding Legend

How they perceive self (RQ1)

1. Perceptions of identity:

SC- strong correlation

MC- moderate correlation

MO- 'moved on'

NC- negative correlation

2. Perceptions of capacity:

sc- strong capacity

mc- moderate capacity

lc- limited capacity

3. Perceptions of 'change:'

IABA—Individual actions, behaviours, attitudes

IIOA—individual influencing others' actions

SPSC—social policy systemic change

4. My interpretation of youth's capacity to 'make change:'

ERS- environmentally responsible stewarding

PLCA- participating in local eco-civic action

ESC- effecting socio-ecological change

How they perceive formative learning experiences in developing their student agency (RQ2)

SBE- School-based learning experiences

LE- learning experiences

LA- learning approaches

LC- learning conditions

CBE- Community-based learning experiences

LLE- local learning experiences

GLE- global learning experiences

APPENDIX U: Toyota Earth Day Scholarship (TEDS) Data Profile

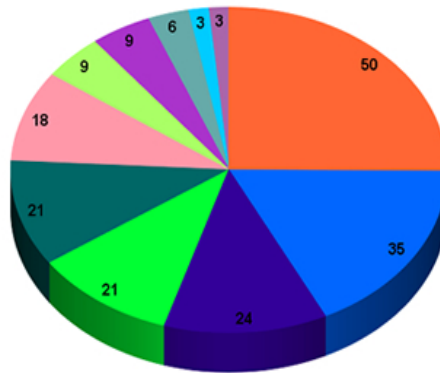
Questionnaire Participant Profile: TEDS Specific Data

I organized the TEDS specific data under 3 subheadings which included: i) award designation; ii) source of awareness of TEDS; and iii) motivation for applying to TEDS.

- a) ***Award Designation:*** 47% (16 of 34) were regional scholarship recipients; 35% (12 of 34) were scholarship finalists; 12% (4 of 34) of the participants were national scholarship recipients; and 6% (2 of 34) were not TEDS-related.
- b) ***Source of Awareness of TEDS Opportunity:*** 32% (11 of 34) of participants had heard about TEDS through a specific teacher, mentor, or friend; 29% (10 of 34) heard about it more broadly through their school community or social network; 26% (9 of 34) through an online scholarship search; 3% (1 of 34) through a magazine article; 3% (1 of 34) cannot recall where; and 6% (2 of 34) not applicable.
- c) ***Motivation for Applying to TEDS:*** 62% (21 of 34) of participants applied for a TEDS because they felt it was a ‘good fit’ with their efforts/interests/actions; 47% (16 of 34) applied in hopes of securing funding for postsecondary education; 12% (4 of 34) applied to receive recognition for their work/efforts; 3% (1 of 34) applied for the perceived value of being part of a network such as TEDS; 3% (1 of 34) applied in an effort to become a role model/inspiration to other youth; 3% (1 of 34) cannot recall why; and 6% (2 of 34) not applicable. Several participants offered multiple sources of motivation for applying as the above statistics demonstrate (+100%)

APPENDIX V: Questionnaire Participant Profile— Interests and Hobbies

Personal Interests & hobbies



- Sports/Outdoor Recreating
- Music/Arts
- Environmental Issues
- Reading
- Social Media Engagement
- Volunteering/Coaching
- Civic Participation
- Traveling
- Social Innovation
- Cooking
- Photography

APPENDIX W: Summary Matrix of Questionnaire Participants' Perceptions on Eco-civic Identity and Capacity

	<i>IDENTITY</i>				<i>CAPACITY</i>		
	Strong Correlation	Moderate Correlation	'Moved On'	Negative Correlation	Strong	Moderate	Limited
1	X						X
2	X				X		
3	X				X		
4			X		X		
5		X			X		
6			X		X		
7	X				X		
8		X				X	
9	X					X	
10	X				X		
11	X						X
12				X	X		
13		X			X		
14		X			X		
15	X				X		
16	X				X		
17	X				X		
18	X					X	
19	X						X
20	X				X		
21			X			X	
22	X				X		
23	X				X		
24		X				X	
25	X				X		
26	X				X		
27	X				X		
28	X				X		
29		X				X	
30		X			X		
31	X				X		
32	X				X		
33	X					X	
34	X				X		
Total	23	7	3	1	24	7	3

APPENDIX X: Questionnaire Participants’ Perceptions of Change and Student Agency

	Perceptions of ‘change’			Perceptions of ‘student agency’ (participants’ definitions)
	IABA ⁵⁹	IIOA	SPSC	
1			X	A student that can make change; lead or provoke change at any level
2		X		Taking initiative
3	X			Taking the initiative to lead others in a movement towards a positive change
4	X			To apply what you learned to make a difference around you and act upon it
5	X			Capacity of individual or group of students to bring about positive change in their own communities and society
6	X			A student who focuses on bringing about change through what works
7	X			Youth have visions, concerns, and perspectives that are unique and powerful
8	X			
9	X			An empowering term meaning that young people have a valuable voice and can create change
10	X			A group led by students
11	X			Student is merely the vessel for which the idea/innovation is expressed from
12			X	Engaged and empowered to the extent that they can and do make change in their communities
13	X			It means students taking initiative to make change and administration giving them the freedom and responsibility to do so
14	X			Nothing really
15	X			We have enormous potential to acquire knowledge and use that knowledge to make change in society either through our future work, or by inspiring other students
16		X		To not leave injustices unchallenged
17	X			That students are actively trying to make change
18			X	Students driving societal change
19		X		Active participation in project or event to help make change in society
20	X			
21			X	That students feel confident enough in their own abilities, knowledge, and ideas to move forward and

⁵⁹ IABA—Individual actions, behaviours, attitudes; IIOA—Individual influencing others’ actions; SPSC—Social policy, systemic change

				drive change without the leadership of a teacher or other authority figure. These figures are important for guidance and support but for true student agency to exist they must play a facilitative role and not impose their ideas or attitudes onto these students
22	X			As a student I have the power to make positive changes to my surroundings
23		X		Capacity that students have to create positive social/environmental change in their lives
24		X		About students having the ability to take action for themselves, without having to seek permission from teachers and supervisors. If there is a role for teachers, it is as an enabler and supporter, rather than as an organizer
25		X		Someone who is enacting change & doing something to motivate people to do the same in their life.
26	X			Group of students who are inspired and committed to making change in the world
27	X			Student is making an effort out of their own personal concern to attempt to improve the deficiencies they see in society. They are taking action based on their own personal beliefs and values.
28		X		Student democracy is the best place to make changes happen
29		X		Utilizing unique position as a student to advocate for and enact change in society
30	X			Refers to a particular individual, group or technology that acts as a radical turning point for positive change
31		X		Applying what they have learned to make a contribution to the world; outputting instead of always receiving inputs
32		X		Capacity to make choices; students have malleable thinking and fresh ideas
33	X			Nothing really`
34		X		Passion—this is really what pushes a movement forward that leads to positive social change
	Total: 19	Total: 11	Total: 4	

APPENDIX Y: Questionnaire Participants’ Perceptions on Formative School-based Learning Experiences

<p>Learning Experiences</p>	<p>Leader/Member of EE clubs/councils & related projects</p> <ul style="list-style-type: none"> • <i>school composting initiative</i> • <i>Ecovision (EE club) solar panel project & greenhouse project</i> • <i>water conservation club</i> • <i>student democracy (“wrote the environmental policy for my cegep’s student association” while coordinator of eco-committee)</i> • <i>Grad Forest Initiative</i> • <i>running school’s waste management system</i> • <i>waste audit & developing a sustainability plan for my school</i> • <i>founding Coalition for Sustainable Development at University of Waterloo</i> <p>Alternative/Academic Programs⁶⁰</p> <ul style="list-style-type: none"> • <i>IB program—social justice & international understanding; sustainability & community involvement</i> • <i>Grade 10 Community Environmental Leadership (focused semester program)</i> • <i>DEC in ‘sciences, lettres et arts’ in Cegep (multidisciplinary pre-university program)</i> • <i>High school leadership program</i> • <i>High school program that emphasized leadership, hands-on projects, social justice, and sustainability</i> • <i>Field school (undergraduate Science program)</i> • <i>Fine Arts School (gr 1-12)</i> <p>Specific Courses & Memorable Class Discussions</p> <ul style="list-style-type: none"> • <i>global geography (elective)</i> • <i>science courses focused on “justice” & “change”</i> • <i>critical thinking course (elective)</i> • <i>world issues, environmental science, political science (electives)</i> • <i>Class discussion in Grade 10 history on “cognitive thinking & social change”</i> • <i>Class discussions on climate change, environmental issues and the need for leadership</i> • <i>Class discussions on critical thinking, problem-solving</i> • <i>Discussions on learning the “business case for sustainability”</i> <p>Importance of Teacher</p>
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⁶⁰ The participant responses organized on the theme “alternative/academic programs” correlates directly with the broader subheading “learning approaches;” youth spoke about how the pedagogical approaches (i.e., project-based learning, interdisciplinary learning, experiential learning, etc) used by teachers in these alternative/academic programs enhanced their learning interests, engagement, and success.

	<ul style="list-style-type: none"> • <i>learning from mentors; teachers as mentors</i> • <i>passionate teachers; great teachers; particular teacher who inspired me to challenge the norm and to be more mindful of the world around me</i> <p>Field Trips</p> <ul style="list-style-type: none"> • <i>parks, local bogs, wetlands</i> • <i>Outdoor Education Centre (3 day field trip)</i> <p>Other</p> <ul style="list-style-type: none"> • <i>Establishing school-community partnerships</i> • <i>Leadership workshops on school field trips</i> • <i>Environmental competitions (i.e.. Envirothon Manitoba)</i> • <i>Gaia Project (provincial EE NGO working with/in schools)</i>
Learning Approaches	<ul style="list-style-type: none"> • <i>Project-based learning</i> • <i>IB program</i> • <i>Focus programs (i.e., Integrated 4-credit themed semesters)</i> • <i>Interdisciplinary learning: Taught interconnectivity of subjects</i> • <i>“being part of a small cohort program for gifted students”</i> • <i>Experiential learning (inside & outside school-based learning)</i> • <i>Hands on learning (i.e.. water & soil testing; educational trips on research vessels)</i> • <i>Collaborative learning & community partnerships</i> • <i>Leadership development</i>

Note: The data presented in the above represents direct responses and/or key phrase excerpts of wordier responses from the participants’ questionnaires. In several cases there was overlap of repeated themes in which case I listed the theme only once; however, I organized the emergent small-n themes (i.e., leader/member of EE clubs; alternative/academic programs; specific courses & memorable class discussions, etc) in order of response frequency; the least common (or singular responses) were listed last under the theme “other.”

APPENDIX Z: Questionnaire Participants' Perceptions on Formative Community-based Learning Experiences

<p>L C C A L C C M M L N I T I Y</p>	<p>Initiating/Leading a Community Eco-Project</p> <ul style="list-style-type: none"> • Starting a community garden in home city • Community workshop leadership (i.e., facilitating shoreline cleanups) • Community eco-grant initiative (winterizing team) • Implementing a water conservation plan for the community • Founding Coop Becik (bike coop); working with community bike shop movement in Montreal (i.e., Right to Move; Santrovelo) • Founding Life Cycle (repairs used bikes for disadvantaged persons) • Organized 'Water4Life' event at University of Waterloo • Organized local BioBlitz • Active member of True North Community Cooperative • Carbon Neutral Project Developer (University of Alberta) • organized a municipal election campaign (on bikes) • active member of divestment campaign at SFU <p>Leading Community Eco-Project as part of broader network</p> <ul style="list-style-type: none"> • Working with Lights Out Canada as New Brunswick's provincial ambassador • Running an Otesha Tiple-H Team Project at my school <p>Member of Community Council/BOD/Steering Committees</p> <ul style="list-style-type: none"> • Sitting on community boards as youth representative • Member of Ontario Nature Youth Council • Mississauga's Environmental Advisory Committee • Peel Environmental Youth Alliance • Whitby Environmental Youth Alliance • Mississauga Transit Committee • Board member of local non-profit (arts) • Local sustainability committee on community gardens & rooftop gardens <p>Member of a environmental learning community</p> <ul style="list-style-type: none"> • New Brunswick Environmental Action Network/YEAN – learn about local issues (i.e.. shale gas, wetland conservation) • Working at Adventure Earth Centre (learned about leadership; community; teaching/learning approaches) • Community youth group (i.e., Ripple Effect—water conservation focus) • Halton Peel Biodiversity Network • Alberta Envirothon & “meeting others like me” • Member of British Council of Canada • work on International Climate Champions of Canada • attending conferences • GAIA activism • Member of Ontario Campus Food Systems Project • Member of GreenHouse (University of Waterloo)
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- *Canada Wide Science Fair*

Peer Eco-leader/Educating younger children

- *Peer-student teaching (i.e., Cycle Savers to Grade 4 students)*
- *EcoMentor with Earth Day Canada*
- *Biking from Vancouver to Inuvik giving environmental workshops to youth*
- *giving presentation to peers on science/environment*

Volunteering in Community

- *researcher for local food organization/local food hub*
- *One Tomato Project*
- *Bluewater Sustainability Initiative*
- *Sarnia Muslim Association*
- *Habitat for Humanity Youth Build Program;*
- *Model United National Club; self-education (MOOCS)**
- *local food bank*
- *POWER Halton*
- *Being a orientation week leader at university*

Time in Wilderness

- *quiet, reflective, spiritual experiences in the wilderness*
- *Spending time in the wilderness*

Other

- *home building & renovating with family*
- *Receiving (and inspired by) TEDS*
- *Local farming; agricultural involvement*
- *Personal readings*
- *science learning programs*
- *katimavik*
- *Ontario Model Parliament*
- *Model United Nations*
- *Scouts*

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Participation in International Youth Summits/Forums

- Delegate at climate change conference (COP 15)- Montreal
- Founder of SOI Alumni delegation— led Rio+20 youth delegation; co- led youth delegation at COP 19 Warsaw
- Author of policy paper for UN “Youth and the Post-2015 Development Agenda” initiative)
- Co-founder of Youth Arctic Coalition

Global Youth Education Programs

- Going to Arctic & Antarctica with Students on Ice— International learning context; adult mentoring; passionate community⁶¹
- Running across Botswana with Impossible 2 Possible program (i.e., Adventure Learning)
- Free the Children (Kenya)

Member of International Networks & Conferences

- International youth climate change movement—networks & social media (i.e., 350.org)
- Attending international conferences & opportunities to network & learn from “leading thinkers in the environmental community”

International Travel, Volunteering, Interning

- Living in other countries
- Travelling abroad with family
- International volunteering (organic farm Nicaragua)
- Examining human-environment-health relationship while travelling
- Travelling to Kenya with charity group to build school
- Rotary Youth Exchange
- Witnessing different perspectives while travelling
- 4 month internship with Engineers Without Borders Canada (in Malawi in agricultural sector)*
- Volunteering in Peru

⁶¹ 4 youth in this study were Students on Ice alumni while other global youth education programs were noted by single participants.

APPENDIX AA: Interview Participants' Background Profile

	<i>Name</i> ⁶²	<i>Age</i>	<i>Gender</i>	<i>Current Activities</i>
1	Stephen	19	M	<ul style="list-style-type: none"> - 3rd year undergraduate student at University of Alberta enrolled in a Bachelor of Science in Engineering Physics - volunteering at the Carbon Neutral Project Developer for a campus of the University of Alberta
2	Lucy	18	F	<ul style="list-style-type: none"> - 1st year undergraduate student at Mount Allison University enrolled in Environmental Studies - work for the Potato Research Centre studying soil & water qualities & effects of agricultural run-off - volunteer for New Brunswick Environmental Action Network, Lights Out Canada, Eco Action
3	Julie	23	F	<ul style="list-style-type: none"> - a Bachelor of Education student at Lakehead University - Board member for True North Community Cooperative
4	Ben	18	M	<ul style="list-style-type: none"> - 1st year undergraduate student at University of Waterloo enrolled in Environmental Engineering - volunteer work with the Peel Environmental Youth Alliance
5	Xavier	20	M	<ul style="list-style-type: none"> - 2nd year undergraduate student enrolled in Bachelor of Nutrition program in Montreal - Founding President of community bike cooperative
6	Franny	20	F	<ul style="list-style-type: none"> - 3rd year undergraduate student at University of Waterloo enrolled in International Development with a minor in Environmental & Resource Studies, as well as an Environmental Assessment Diploma, a Global Experience Certificate & a French Language Certificate - Peer Leader for Environment Living Learning Community at St. Paul's University; member of GreenHouse; Campus Coordinator with Ontario Campus Food Systems Project
7	Stacy	18	F	<ul style="list-style-type: none"> - 1st year undergraduate student at University of Western studying economics - volunteers with a local environmental network
8	Noah	21	M	<ul style="list-style-type: none"> - 4th year undergraduate student at University of Waterloo enrolled in Geography and

⁶² The order of interviewees in this table follows the order of the questionnaire participants listed in Appendix L on page 236. In other words, interviewees 1-10 in this table align with questionnaire participants 2, 7, 12, 16, 19, 23, 29, 31, 32 and 34 in Appendix L. Interviewee 11 in this table represents the one interviewee that did not complete the questionnaire. Pseudonyms have been given to each participant.

				<p>Environmental Management, minors in Biology & Environmental Economics</p> <ul style="list-style-type: none"> - Arctic Research Assistant; Editorial Intern at Alternatives Journal; Peer Leader for 1st year environmental studies students; Volunteer with Community Justice Initiatives
9	Anna	16	F	<ul style="list-style-type: none"> - Grade 11 high school student in Southern Ontario - Volunteer with One Tomato Project; Bluewater Sustainability Initiative; Habitat for Humanity Youth Build Program
10	Rosie	16	F	<ul style="list-style-type: none"> - Grade 11 high school student in Southern Ontario - Volunteer with Nova's Ark; member of Ontario Nature Youth Council; Earth Day Canada; Founding member of Whitby Environmental Youth Alliance
11	Karen	19	F	<ul style="list-style-type: none"> - 1st year undergraduate student at University of Toronto enrolled in Bachelor of Fine Arts

APPENDIX BB: Three Strategies for Creating Social Change in Relation to Their Level of Impact

From: Clarke, A. & Dougherty, I. (2010). Youth-led Social Entrepreneurship: Enabling Social Change. *International Review of Entrepreneurship*, 8(2), online.

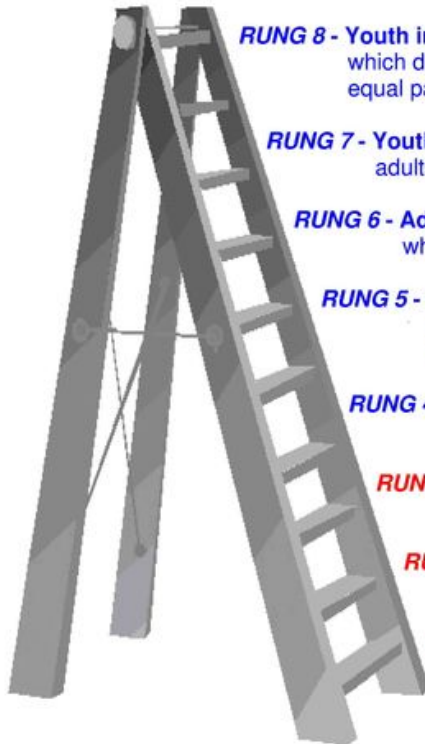
Table 1: Three Strategies for Creating Social Change in Relation to Their Level of Impact

		Level of Impact		
		Individual	Community / Interorganizational	Systemic
Strategies for Creating Social Change	Socialization	Make individuals aware of, and care about, the social problem.	Make organizations or localized communities aware of, and care about, the social problem.	Make broad sector(s) or national / international communities aware of, and care about, the social problem.
	Influence	Enable individuals to influence other individuals to address a given social problem in their own individual lives.	Enable organizations or localized communities to influence those in their communities / constituency to take action to address the social problem in a community context.	Enable broad sector(s) or national / international communities to influence broad populations to take actions to address the social problem in a broad context.
	Power	Support individuals in developing the capacity to directly impact the social problem through their individual actions.	Directly impact the social problem through actions on a community level.	Directly impact the social problem through actions on a national or international level.

APPENDIX CC: Hart's Ladder of Young People's Participation

From: Hart, R. (1997). *Children's participation, the theory and practice of involving young citizens in community development and environmental care*. London: Earthscan Publications Ltd.

ROGER HART'S LADDER OF PARTICIPATION



RUNG 8 - Youth initiated shared decisions with adults: Youth-led activities, in which decision making is shared between youth and adults working as equal partners.

RUNG 7 - Youth initiated and directed: Youth-led activities with little input from adults.

RUNG 6 - Adult initiated shared decisions with youth: Adult-led activities, in which decision making is shared with youth.

RUNG 5 - Consulted and informed: Adult-led activities, in which youth are consulted and informed about how their input will be used and the outcomes of adult decisions.

RUNG 4 - Assigned, but informed: Adult-led activities, in which youth understand purpose, decision-making process, and have a role.

RUNG 3 - Tokenism: Adult-led activities, in which youth may be consulted with minimal opportunities for feedback.

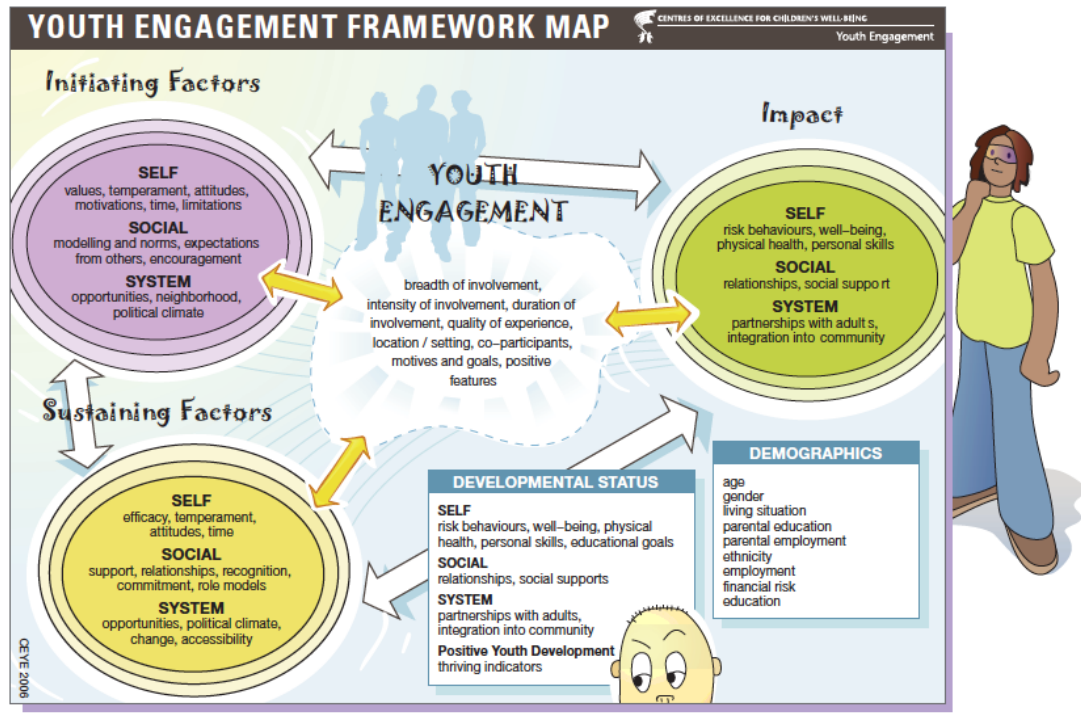
RUNG 2 - Decoration: Adult-led activities, in which youth understand purpose, but have no input in how they are planned.

RUNG 1 - Manipulation: Adult-led activities, in which youth do as directed without understanding of the purpose for the activities.

Adapted from Hart, R. (1992). Children's Participation from Tokenism to Citizenship. Florence: UNICEF Innocenti Research Centre, as cited in www.freechild.org/ladder.htm

APPENDIX DD: Youth Engagement Framework Map

From: Khanna, N. & McCart, S. (2007). *Adult Allies in Action*. Centre of Excellence for Youth Engagement. Retrieved at www.engagementcentre.ca



APPENDIX EE: Ministry of Ontario's *Students as Researchers: Collaborative Inquiry Action Research* (2013)

