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INCLUSIVE ECOCENTRIC EDUCATION

Abstract

Global Eco-Trails (GET) is an ecocentric education school based in BC, Canada offering short cross-cultural environmental wilderness expedition programs in Thailand, Ecuador and Spain, and a full time K-9 alternative ecocentric school program in Canada. Through taking a deep look at the culture and progeny of its programs, it seeks to address the problem of practice to prioritize and efficiently implement the necessary identified structural and curriculum changes based on a post colonialist epistemology and transdisciplinary ecocentric pedagogy to serve the needs of a diverse community of learners. The ultimate goal is to bring the programs to the forefront of contemporary education by providing a scalable model that can be adapted around the world providing a fully inclusive education system based on ecocentric, and social learning values in the belief that society needs a new education model for the Anthropocene/Capitalocene. A multicultural/multi-demographic laboratory in the real-world (LRW) series of programs is proposed as the first step in a process. Proposed GET programs will practice Indigenous/nonindigenous co-teaching/management and through a critical pedagogy process seek inclusivity for all demographics. LRW programs will be led by students and faculty at partner universities' transdisciplinary environmental humanities and teacher education departments who will conduct the research projects at each session under the direction of GET staff. Community partners will be drawn from environmental education, sustainable living, and local community organizations at each program location, building on a 20-year relationship with four communities, in Spain, Canada, Ecuador, and Thailand for whom the Laboratory ecocentric programs will take place each year in Spain and Canada. The K-9 school program being developed will mirror environmental humanities university department transdisciplinary areas of study combined with an evolutionary-based education subject model built on hunter-gatherer and horticultural society sustainable living skills and Indigenous pedagogy. Lab programs will take the form of a living prototype sustainable village where students learn through experience and build within themselves a future vision, aptitude, and practice for positive sustainable change.

Keywords: ecocentric education, transdisciplinary pedagogy, laboratories in the real-world, environmental humanities.

Executive Summary

Global Eco-tours (GET) is an ecocentric education school based in Canada offering short cross-cultural environmental wilderness expedition programs around the world, and a full-time K-9 alternative ecocentric school program in BC, Canada. Its small board of Indigenous and nonindigenous directors/educators have realized that the programs they have been offering are not meeting their vision to be fully inclusive in access and approach in terms of gender, the environment, non-Euro/Euro-North American cultures, and marginalized identities whilst achieving their ecocentric education goals. The problem of practice concerns how to align their vision and mission, so that the GET leadership prioritize and efficiently implement the necessary identified structural and curriculum changes based on a post colonialist epistemology and transdisciplinary ecocentric pedagogy to serve the needs of a diverse community of learners.

Chapter 1 of this organization improvement plan (OIP) considers the history and structure of the organization and continues to delve into the history of the Eurocentric nature education tradition beginning with Rousseau, and also the evolutionary history of learning through an exploration of the art and science of tracking. Drawing on these perspectives, the choice of ecocentric education as a pedagogic path forward is described for the purpose of understanding which goals are possible and desired.

Change will be explored through a worldview that is pragmatic, considering transformational and constructivist perspectives that are contained within a transdisciplinary praxis that gives greater standing to nonlinear Indigenous epistemologies. Researching how both program structure and curriculum would need to change, the readiness for change of the community of stakeholders, from school boards, schools, charitable foundation schools, Indigenous schools, Indigenous communities, unschooling communities, exchange student families, university transdisciplinary & environmental humanities departments, grassroots environmental organizations, Indigenous environmental and political action organizations, and environmental local support networks and organizations will be considered in the process.

In chapter 2, I explain why the congruence model and self-governing structures (holacracy) are chosen as the frameworks necessary for leading the change process working with a wide family of stakeholders. The critical organization analysis that follows offers an in depth look at GET programs in Canada, Thailand and Ecuador. The alternative economic paradigms

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used in Thailand (the sufficiency economy philosophy) and in Ecuador (Buen Vivir) are examined in relation to the needs of the various demographic and cultural groups of students.

Possible solutions consider the stakeholder family in all its breadth and acknowledge that Euro-North American culturally based solutions will not suffice. Experimentation in the tradition of Dewey's laboratory school and the laboratory in real-world (LRW) programs is a chosen approach as it extends the research and work to include university transdisciplinary environmental humanities, teacher training departments' students, Indigenous and sustainable living communities. The chosen change implementation plan consists of conducting a series of 6-week LRW programs. The LRW programs will provide an opportunity to develop a curriculum and pedagogical practice that fulfil GET's mandate for inclusivity based on ecocentric principles and methodologies. This series of LRW's conducted over two years both in Spain and Canada will bring together students from teacher training and transdisciplinary environmental humanities university departments worldwide to provide a diverse student body tasked with experimenting with and creating curriculum content for an inclusive K-9 ecocentric education program. Short 1-3-week K-9 camp type programs in a laboratory school format will provide a practicum for the LWR tertiary education students.

In chapter 3, I explain how the change plan will consist of two steps. The first step entails spending a year building capacity through consolidating stakeholder involvement in the change plan and recruiting new partners. Working together with stakeholders following the distributed leadership model, the GET directors will facilitate the creation of the step two Change Lab programs which will occur during years 2 and 3. This second step process of labs involving students from a wide demographic of age, background, nationality and culture will function as a laboratory school for each 6-week period, with participants creating and testing curriculum content and learning environments toward the creation of a full K-9 ecocentric program. At the end of the two-step process, GET directors and stakeholders will decide on a third step toward the completion of the goals and solutions to the POP.

The evaluation process will focus on inclusivity using the ISE4GEM method which was designed to evaluate Sustainable Development Goals (SDGs) based on a systems thinking approach. Applying the evaluation system to regenerative laboratory learning environments seems an appropriate fit as the measuring tools similarly focus on multi-perspective inclusivity, transdisciplinary wicked problem application, and systems thinking focus.

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The communication strategies for the change process will utilize a communication plan which introduces, explains, describes, or encourages the adoption of the proposed changes and will subsequently address the countering negative perceptions and concerns through reaching out to those with reservations. Communication will need to be an ongoing process whereby I as an “implementer will assess and adjust change or the ways employees and others engage with it over the course of an implementation effort” (Lewis, 2019, p. 409).

The one-year preparation and following two-year LRW cycle of change programs proposed in this OIP will produce a set of data to be analyzed and will produce both a Systemic Theory of Change (SToC) and a Theory of Action (ToA) that will inform the next steps toward the long term goal of creating an inclusive international ecocentric K-9 school.

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I would like to thank those who have made it possible for me to follow this path and complete these studies. My daughter Serafina has been my inspiration, advisor, editor. My brother and sister, Caroline and Robert have always been there for me, reminding me that I can succeed. My Grandmother Alice is the reason I followed this path and my strength when the going gets tough. She took great risks in life, twice crossing the great oceans when tragedy struck and once more when a fire took everything from her. My mother, Marion has always held a home and refuge for me; without that, I would not have been able to follow my quest for truth and understanding in life. Tashmyra, my wife and partner, is the powerhouse behind all my work in heart, life and spirit. My friend and mentor Hwiemtun (Fred Roland), a light for so many people. My mentors, Tom Brown Jr. Jon Young, Malidoma Some.

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Definition of Terms

Change laboratories: Change laboratories are a particular form of LRW's. They are forums for practitioners to question aspects of their present activities by jointly analyzing problematic situations and the systematic and historical causes of the identified problems (Engeström, Virkkunen et al., 1996). They are also a forum to reveal and model the systematic structure of the activities as well as contradictions within the systems that cause the problems. They are set up to transform the model representing the systematic structure of the activities in question to find a new form for the activity that would resolve the practice by designing and implementing new tools and solutions for the problems.

Critical pedagogy: Critical pedagogy is a teaching approach that attempts to help students to question and challenge domination; it is a theory and practice of helping students achieve critical consciousness. Students are encouraged to question their habits of thought, first impressions, dominant myths, official pronouncements, traditional clichés, and mere opinions.

Ecocentric education: Ecocentric education developed out of the field of environmental philosophy. It generally refers to a planet- and nature-centered as opposed to a human-centered system of values. It also acknowledges nonhuman species' right to flourish independently of human interests (Naess 1973). Inspired by a philosophy that questions the dichotomy between humans and the environment, ecocentric education focuses on the intrinsic values of the environment, the connectivity of ecosystems, and education for sustainable development.

Environmental Humanities: Environmental humanities are a conjoined interdisciplinary formation between the traditional humanities or social sciences- such as philosophy, literature, religion, art, history, language studies- and natural sciences- to address the environmental crisis currently engulfing us.

GEM's Framework: The GEMs Framework builds on existing evaluation practices using a methodology informed by feminist systems thinking, critical systems thinking, and intersectionality theory, and involves stakeholders in an effort to locally define, analyze and implement evaluations as a means to contribute to social change and national capacity development within the SDG context. The GEMs framework focusses on three concepts; Gender equality; Environments, and voices from the Margins (Stephens et al., 2016).

Indigenous: A study by the United Nations contains the following definition:

Indigenous communities, peoples, and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems. (Anaya, 2000, p. 4).

Laboratories in Real world contexts (LRW): Real world laboratories are a targeted set up of a research infrastructure that creates an environment for cooperation between players from the scientific and civil communities. The purpose of this combined production of knowledge is to support a more sustainable development of society. Knowledge production takes place in real-world environments instead of scientific laboratories

Laboratory School: A school- usually backed by a university department or an institution that trains teachers. It has a structure that enables the formation of organic links between education and research (Wilcox-Herzog & McLaren, 2012). The complementary activities of education, training, and research make it possible to develop and test new approaches and to model best practices (Cucchiara, 2010).

Real World Laboratories (RWLs): Real-world laboratories are a targeted set-up of a research “infrastructure” or a “space” in which scientific actors and actors from civil society cooperate in the joint production of knowledge to support a more sustainable development of society. Both scientists and civil society actors are involved in the process of knowledge production; and, knowledge production takes place in real-world environments instead of scientific laboratories.

Transdisciplinarity: According to Mitchell & Moore (2018):

Transdisciplinary research draws on holistic and integrative approaches to solving complex systemic problems within the sciences, arts, and humanities to augment truths found within all disciplines for the betterment of the human condition. (p. 450)

Wicked Problems: Waddock (2019) describes a wicked problem as:

[having] no definitive beginning or end; and...[consisting] of complexly interactive, dynamic... interdependent parts that cannot readily be separated (Rittel and Weber 1973). There is no obvious solution to a wicked problem, and, most likely, stakeholders will be hard-pressed to agree on what such a solution might be in any case. (p. 935)

CHAPTER 1: Introduction and Problem

Global Eco-Trails (anonymized) teaches two related and semi-integrated types of educational programs to youth K-9 in BC, Canada, Thailand, Ecuador, and Spain under the title of ecocentric education. The first type of program lies within the tradition of European and North American ‘nature education’; the second exists in the tradition of ‘wilderness and Indigenous travel expeditions’. In this chapter, I will describe how Global Eco-Trails and its predecessor organization’s political, economic, and social culture have developed over the past 20 years. I will continue to explore the role leadership has had in the organization and how this has been formed by and has affected the organization’s development. I will then explain the Problem of Practice (POP) for this Organizational Improvement Plan (OIP) and discuss issues and questions relating to the POP, concluding with an analysis of stakeholders’ readiness for change.

Organizational Context

A new wave of nature-based education beginning in the 1990s seeks to increase awareness of environmental degradation and a growing concern regarding the amount of time youth are spending indoors in the digital media age through programs whose goal is to reconnect youth to the natural world. This ‘new wave’ is a recent manifestation of a nature-based education tradition emanating from Rousseau’s eighteenth-century treatise on the nature of education and on the nature of man, *Emile, or Education* (1762, 1921). The contemporary form popularized as ‘the outdoor education movement’ has led to the creation and development of hundreds of nature education programs worldwide (Louv, 2011).

Global Eco-Trail’s nature education programs exist within this loosely related family of programs though its influences and practice have particular features and goals inspired by Indigenous (Battiste 1998, 2005, 2010, Arabena, 2006, 2016), Montessori 1870-1952 (2004), Freire 1921-1997 (2000), Ecocentric (Kopnina, 2020, Shrivastava, 1994), Transdisciplinary (Mitchell & Moore, 2015), and Dewey (1944) pedagogies. Programs offered range from three-week intensives in Ecuador, Thailand, and Spain, to a 4 day a week year-round alternative school program for K-9 students in Canada. The organization’s overall pedagogical goal is based on the belief that nature education offers not only a meaningful addition to regular 21st-century schooling but can ultimately provide the foundation for a complete K-9 education based on a total rethink of educational priorities. There is a sense of urgency that the organization believes exists for a complete overhaul of the education system based on the environmental destruction

wrought by dominant global economic practices and a Eurocentric education system that perpetuates the practice and philosophy of this destruction.

Many North American Global Eco-Trail (GET) students have been drawn to programs through the writings of Louv (2011) who describes the “restorative power of nature, its impact on our senses and intelligence; on our physical, psychological, and spiritual health; and on the bonds of family, friendship, and the multi-species community” (p. 2). He continues to speak of a Vitamin N (for nature) that “will enhance physical and mental health” and that “the more high-tech our lives become, the more nature we need to achieve natural balance” (p. 4).

GET instructors are both Indigenous and nonindigenous. The nonindigenous instructors, study and build programs based on the curriculum content of the Tracker School (2020a), and the nature education practices developed at the Wilderness Awareness School (Young et al., 2010) whilst practicing a Montessori 1870-1952 (2004) inspired pedagogy. Young et al.’s (2010) work is based on over 30 years of field research, and over 100 schools across North America and Europe are based on his teacher training programs. These schools in general use Louv’s (2005) work and studies to support and promote their nature education programs. As Young (2020) was mentored originally by master tracker and expert survivalist Brown (Tracker School, 2020b), who himself was mentored by an Indigenous Lipan Apache Elder, GET programs exist within a ‘Indigenous knowledge shared with Settler’ tradition. Though the authenticity of the knowledge and skills taught are verified, GET instructors test all teachings in both the natural world and through consultation with Indigenous instructors/scholars; a practice recommended by Brown (Tracker School, 2020a). GET programs are marketed and adapted to the nature education movement popularized by Louv. The Indigenous instructors follow their own traditional pedagogic oral traditions, and GET’s management goal is to afford equal standing to both Indigenous and nonindigenous input. However, through the interplay of stakeholders’ needs and unacknowledged cultural norms, there are unresolved theoretical relational discrepancies regarding the equal standing of Indigenous/nonindigenous input.

This grassroots family of nature-based programs can be differentiated from education for sustainability (EfS), education for sustainable development (ESD), or environmental education (EE), which have a more academic progeny in the environmental sciences and enjoy UNESCO mandate and support. This differentiation becomes less pronounced regarding stakeholder and client awareness, as EfS, EE and nature-based programs share common environmental and social

concerns, histories in the Eurocentric pedagogical canon, methodologies, and practices. I will refer to GET programs as ecocentric education in this paper for their particular features, though I will reference studies in EfS, ESD, and EE where they are applicable. A common goal for all these programs has been stated by UNESCO. “The Belgrade Charter (UNESCO-UNEP, 1976) and Tbilisi Declaration (UNESCO-UNEP, 1978) place EfS as an essential component of education critical in stimulating and shaping change in human attitudes, values and behavior” (McKay, 2013, p. 30). To create a society that lives and behaves sustainably, these changes that would be initiated by ecocentric education would precipitate fundamental cultural transformations.

The second interrelated strand of programming that GET offers, wilderness and Indigenous travel expeditions, consists of exchange and volunteer programs between Canadian students and students from Thailand and Ecuador. These programs involve taking Canadian students into Indigenous communities for 3-6 weeklong authentic learning experiences and bringing Indigenous and international school students to Canada for a similar length of time to experience ecocentric education/immersion ESL programs. These programs have been shaped by the wider political, economic, and social culture of wilderness and Indigenous travel which present challenges that have shaped the organization’s approach. GET programs have set the goal of moving beyond these challenges (stemming from colonial and post-colonial tropes) through immersing students into Indigenous school cultures to form authentic experiences and relationships between students. These experiential expeditions also focus on natural world explorations and adventure and follow a flipped classroom methodology, whereby post-experience political and social contextualization studies/projects provide a deeper learning experience.

Table 1 shows the programs offered by GET around the world. All programs are operational except for the BC K-3 and 4-9 programs which are on hiatus. The learning community involved in these BC programs continue to function through short course and expeditions organized by local GET instructors and a waiting list of interested K-3 students awaits resumption of this program. This core community is aware of the change process at the GET organization and supportive of improvements and resumption of program.

Location	Stakeholder partners	Duration	Number of students	Program description	Credits gained
Spain	K-3 local students and families	4 day a week year-round program	12 -18 K-3	K-3 ecocentric Montessori program	K-3 core curriculum
BC (on hiatus)	Independent Schools x 3 distance learning organizations x 4 School districts x 2	Year long Full time and part time.	12 – 24 per year full time 50-100 part time students Grades 4-9	K-3 ecocentric Montessori program, Elementary and Middle school ecocentric program	K-3 core curriculum Grade 4-9 credits in English, Socials, Science, Art and Phys Ed.
Thailand and Spain	2 International schools Public schools x 3 Foundation organizations x 4 Local community organizations x 2	Weeklong camps	12 groups of 40 grade 7-9 students. Total 400 per year each in Thailand and Spain.	Environmental science and English Camps for grades 4-12	Camp diploma and curriculum practicum for environmental science school program
Ecuador BC and Belize exchange programs	Universities x 4 Independent schools x 3 Community organizations x 3 Foundations x 2	3 week	Exchange program for 48 students per year. 24 Canadian, 22 Belizean and 24 Ecuadorian	High School and University level environmental science practicum	High school and university credit program

Table 1 GET program list

GET directors have designed, participated and instructed in the following programs shown in table 2. These partner organizations are part of an informal family of nature awareness and environmental education programs and schools :

The Art of Mentoring camps across North America – teacher training and community building nature education camps.	Founded by Jon Young and the Wilderness Awareness School. 10 camps per year for 150 participants each camp.
Rediscovery camps – Cross cultural Indigenous/nonindigenous camps, BC, Canada	Founded by Tom Henley. 40-50 students per camp
Nature and healing land-based camps for Indigenous youth in care, BC, Canada.	Founded by Fred Roland (Hwiemtun). 25 students per camp
Children of the Earth Foundation camps, NJ, USA. Survival skills and Indigenous philosophy camps.	50-100 students per camp. 4 camps pre year. Founded by Tom Brown Jr. and Jon Young.

Table 2 Participating and partner program organizations

GET works with three NGO charity foundations who work with disadvantaged and at-risk youth providing 1-3 week ecocentric education programs. One in the USA, one in Thailand (headquartered in Australia), and one in Ecuador.

Coyote Program which is now a separate organization:

BC Island	Community organization x 1 School district x 1 Distance learning organizations x 3	Year long	24-36 Full time grades 1-6	Alternative grade 1-6 ecocentric education program for distance learners and homeschooled students	Grades 1-6 credits in English, Socials, Science, Art and Phys Ed.
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Table 3 Coyote organization program

The overall definition of ‘ecocentric education’ has been chosen to acknowledge GET vision’s belief in the interconnectedness of existence and that humans are but a part of that.

Kopnina (2020) explains:

An alternative to the dominant forms of ESD...can be summed up under a broad umbrella of “ecocentric education” (Shrivastava, 1994) ... These types of pedagogies take education for the environment as a departure point for both social and ecological sustainability. Planetary citizenship involves an ongoing process that expands beyond the classroom to the entire community, encouraging learners to develop a conscience for planetary inclusiveness, where collaboration and sharing with other species becomes the norm. (p. 5)

Vision, mission, values, purpose & goals

In breaking down the organization’s combined progeny and influences, several philosophies and methodologies can be seen to inform its vision, mission, values, and goals. One reason for the necessity of grassroots and independent type ecocentric education programs lies in the educational void left by mainstream schooling in addressing sustainability issues and outdoor learning opportunities. O'brien (2013) considers that “[o]ur education systems do not exist in isolation from the rest of society. They reflect our cultural values, but the education sector tends to be conservative, slow to adapt, and rarely leads social change” (p. 303). This can pose a barrier to progressive transformation in the education sector and needs to be overcome if, as

O'Brien (2013) explains, education "can indeed become part of the solution – contributing to resilient, sustainable happiness and well-being for all" (p. 303). O'Brien & Howard (2016) conclude that "[i]f 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. 116). Fulfilling this need through offering programs outside and as an adjunct to mainstream education is an aspect of GET's purpose.

GET's vision is informed by Chet Bowers (Bowers, 2006; Bowers, 2001; Bowers & Flinders, 1990) and others (Means, Ford & Slater, 2017) regarding the 'commons' in educational theory. In opposition to the commodification of education through OECD initiatives, GET programs value the creation, repossession and continuation of the 'commons in education' through practices such as teacher-led education, community learning centers, student-centered learning, land and place-based learning initiatives and de-colonizing, feminist and Indigenous pedagogies (Bowers 2006).

This educational work considers multicultural and multi-demographic perspectives; particularly Indigenous/nonindigenous relations and cooperative learning. Korteweg and Russell (2012) point out that:

Environmental educators are particularly adept and well-positioned to work towards Land-based education and can welcome inclusive Indigenous knowledge and create respectful spaces within environmental education to help non-Indigenous students acknowledge and respect the increasingly relevant, foundational, and critically important Indigenous knowledge of the traditional territories of Indigenous peoples on whose land they live. (p. 7)

GET's vision for Indigenous/nonindigenous cooperative teaching and learning is informed by Arabena (2006) who offers an overview of the urgency for change which considers "the imposition of settler society's socio-material systems over Indigenous peoples and landscapes" (p. 37). The alternative framework presented by Arabena (2016) offers a path forward for a K-9 education program being based on a systematic framework for Indigenous and nonindigenous students and faculty that includes a model for universal morality as a cross-cultural foundation. The depth of this re-foundation that Arabena (2006) presents, is a core goal for the organization. Taking critical pedagogy as a route to reconciliation, Arabena (2015a) believes that:

In normal reconciliation we will carry out the improvement in the circumstance of our lives, and in post-normal reconciliation we will be part of the global infrastructure that facilitates a transition from a period of human devastation to a period when all humans are present on the planet in a mutually beneficial manner (Bookchin 1980). This is the natural trajectory for reconciliation, a fluid movement from reconciling people to reconciling people and the planet. (p. 6)

The GET directors hold this post-normal reconciliation as a vision beyond the necessary normal reconciliation work.

Toward this vision, the practical pedagogic goal mirrored in the vision and mission statements is summed up by Kopnina, Sitka-Sage & Blenkinsop (2018) with the question of how GET programs can support young students to have the imaginative range – the capacity to conceptualize and enact different ways of being in the world – “to transcend the problematic ecological norms of the cultures in which they are nurtured (i.e., what would an idealized multi species “village” look like?)” (p. 17).

Essential to the practical implementation of the purpose and goals of the organization as directed by these theoretical visions, is a consideration of what is realistic and how to avoid certain utopian ideologies. As Archer (2019) explains, “Real Utopias are realistic rather than real though preferable to existing social formations, whilst Concrete Utopias allow for new novelty, such as de-growth, giving hope for reshaping global society” (p. 240). Goals considering a combination of these two perspectives lead the organization to consider novel and experimental possibilities of change success whilst taking into consideration relevant economic, psychological, evolutionary, and political research relating to the parameters of change and exploring historical precedents for educational change. Following the pragmatic tradition of Dewey (1938b), theory and vision are thus placed within a study of the human and societal condition through the study of past educational change (successes and failures) which constitutes the overall change direction of the organization with student learning outcomes being paramount.

The vision and mission of GET focus on instruction in ecocentric education as an exploration of the personal, political and social need for sustainability and change through experiential, inclusive student-centered outdoor and regenerative living skills as place-based programs, coupled with an exploration and analysis of the foundations of these identified

ecocentric education change goals through tracking the human condition, evolution, and history so students can arrive at concrete and realizable personal plans of action. The goal is for all programs to be fully inclusive and international in both access and approach. A concurrent goal is to move beyond the focus on a Euro/Euro-North American student demographic at all levels of the organization so that pedagogic solutions are culturally transferrable and scalable.

Montessori pedagogy and methodology are practiced in programs with certified Montessori teachers. Montessori pedagogy and methods align well with ecocentric education goals and purpose, yet there is potential for a greater alignment to achieve more successful ecocentric Montessori programming.

Credit and assessment (distance learning model)

Credit and assessment of the core K-9 BC alternative ecocentric education program is performed through students' enrollment in partner BC distance learning schools. There are several distance learning models available in BC. British Columbia currently has the largest and most diverse offering of Distance Learning programs. They are both public, private and faith-based. Distance learning programs that GET partners with are:

NIDES: North Island Distance Education School (Courtenay, BC) NIDES is North Island Distance Education School, serving British Columbia Residents for almost 30 years. "The program is free to BC residents, and each family is provided with a budget for learning resources which can include such things as music lessons, or access to sports opportunities. Portfolio conferencing that present student learning is done 3 times each year, as required by the BC Ministry of Education" (NIDES 2020).

Self Design (Vancouver, BC) Self Design is a learner-directed, enthusiasm-based educational methodology. "From kindergarten to grade 12, students work one-on-one with a B.C. certified educator... to achieve their goal of completion in a way that best suits them [toward a] B.C. Certificate of Graduation (Dogwood Diploma), Adult Graduation Diploma or School Completion (Evergreen) Certificate".

Roughly 50% of students join GET programs due to their not flourishing in the regular school system. 50% join because their families would like them to be exposed to an ecocentric education. 99% of students reenter high school in grade 9 or 10 with above average grade point achieved in their first year and all graduate from high school. The few students who did not graduate high school have pursued apprenticeships in ecocentric education and are now

instructors themselves with some opening their own schools. From an academic BC curriculum standpoint, the program meets the needs of learners and families, and students are successful in standard assessments.

In terms of the ecocentric education learning components, the GET organization's goals go beyond the students' overt needs yet confront the general societal needs that drive its vision. It is normal for individual families and students to focus on their own personal achievement goals. Only as a community can community goals be addressed, and only if the diverse makeup of society is involved can greater society educational issues and goals become apparent needs. In the global economy and cultural exchange, this entails an international cross pollination and sharing experience. Individual needs of families and students are being met in GET programs, what this OIP seeks to explore are the community needs of which every individual is part of.

For International part time programs, the situation is a little different and the impact of GET programs in the overall education of individual students is smaller. International GET programs can range from 1 week to 3 months. Students are otherwise enrolled in other school programs. Students that attend international, independent and well-funded advanced standing programs at public schools in general achieve academic success whereas students who attend poorly funded overcrowded state schools with a lack of resources, teaching staff and that involve long commutes and who lack adequate nutrition and emotional and psychological care and deal with abuse and health issues tend to be less successful. GET programs do little to help or hinder these academic outcomes not necessarily due to the content and learning outcome of programs but due to the short-term nature of the programs. The longer the programs, the greater the impact. An example from Thailand concerns to a group of Thai students living at a foundation center for boys (7-18) from the slums of Bangkok in rural Thailand. The students live at the foundation center for reasons including family abuse, substance abuse, extreme poverty and an inability of families to care for them. The students display a range of autism and learning disabilities that are generally undiagnosed. This group of 18 boys aged 7-18 attended 8 x 3-day programs and 3 x 2-week programs over the course of a year. Students emotional wellbeing and academic performance improved as assessed by the center staff and schools. The boys' test scores increased in all subjects and some became top students. Again, the academic and personal needs of students can be seen to be well met by GET programs within the scope set by time spent in programs. Social and community issues however are not well addressed in the current

program structure as stated in GET's vision and mission statements. Students at a center for HIV and autistic orphaned and abandoned children in Northern Thailand enjoy programs, but the boost and impact from a two-week program cannot affect their life prospects or situation. This is a demographic where GET directors would like to make a greater impact; a demographic that is all but forgotten and ostracized from mainstream society and education.

International and exchange program participation stems from schools contracting GET to create and offer programs to their students. Participation in local camp programs is offered as a part of the school compulsory curriculum. Participation in exchange programs is voluntary and considered extracurricular and paid for by students. Most students are motivated to join exchange programs for cultural exchange, adventure and language acquisition. Students receive participation certificates for completion of the programs and Canadian students gain high school credits in socials and physical education.

Organizational Structure and History

The GET organization was formed in 2015 when the Coyote organization split into two organizations. The Coyote organization was a registered Canadian charity educational organization that had operated since 1998. The Coyote organization operated two alternative BC outdoor school programs for 36 students total, as well as independent and BC school contract programs and international educational programs in Thailand, Ecuador, Spain and Belize. The GET organization as a new organization continued all programs except for one alternative BC outdoor education program. GET is structured as a registered BC not-for-profit society. In British Columbia, not-for-profit organizations are known as societies. These incorporated societies may be formed for educational and environmental purposes amongst others (Government of BC, 2020). The previous Coyote organization was operated as a registered charity with a board consisting of a parents and teacher council with decision agreed by consensus. The head instructors had an advisory role. The GET organization consists of four directors; one nonindigenous male, two nonindigenous females, and one Indigenous male. There is one manager in charge of full-time and contract teaching staff and temporary volunteer assistants. As GET directors consider its restructuring it is necessary to analyze its parent organization, Coyote.

The Coyote organization was a registered BC educational charity that operated programs on a contract basis for over 15 years. The decision to separate into two organizations was

premised on the desire for one faction to focus on the local development and maintenance of one program and the desire for another group of instructors and leaders to internationalize, scale and grow. The GET organization also desires to follow a different route to integrating mainstream academic success by following a Montessori methodology. With the creation of the new GET organization dedicated to the international path, it has been realized after four years of programs that a new model is required to fulfil its vision and that the program's curriculum is not serving international student populations and communities equally. Curriculum and programming continued to be catered to specific needs of Euro North American students and yet these students do not link and incorporate their experience to an international context as per the vision. The link to the Ministry of Education requirements through distance learning partners limited possibilities for the programs to advertise their true worth. International programs' success was also limited through marginalization of programs within the core curriculum and school learning outcomes. The potential for core curriculum subjects to become incorporated into the ecocentric education programming would require a redesign and stronger partnership models.

Other related goals where the two organizations diverged were GET management's desire to achieve inclusivity and diversity in the student body, and to include critical and positive pedagogic practices and economic and political perspectives into the curriculum. GET management's long-term goal is to create programs that are scalable, transdisciplinary, and demographically/multi-culturally applicable, and effective.

GET international programs have continued, completing an ecocentric Montessori middle school program for existing long-term students under the direction of the American Montessori Association and training center in Houston, TX and designed and operated full time K-3 ecocentric Montessori programs in Canada, Thailand and Spain.

Leadership Position and Lens Statement

As a teacher/director of GET, I have been mandated by the board to prepare an OIP to help steer the new organization on a course of greater success concerning its goals and vision. The OIP will subsequently be reviewed by the three other board members and re-formed into a jointly created OIP. My agency and scope as a director of the non-profit organization and as a teacher/instructor rests on my role as an equal member of a leadership team of four who has the mandate to research and prepare a change plan for the board's consideration. In my role as head

of curriculum development, I have taken on this OIP task to build on the recommendations and sector analysis of my MA thesis, and I enjoy the confidence and support of my leadership team.

My approach is transdisciplinary. Augsburg (2014) explains that “transdisciplinarity presupposes an individual ethics, as desire to improve society and to contribute the advancement of the common good” (p. 233). Positioning my praxis as a transdisciplinary, my scholarship deals with the real-world practice of inclusive ecocentric education. Clarysse & Moore (2019) state that “[t]his transdisciplinary approach is grounded in non-linear perspectives, complexity thinking and creative inquiry; it shares philosophical principles congruent with Indigenous knowledge systems which are propelling global reform movements in education (p. 2). I will take a trans-systemic approach in my analysis approach to my POP as Clarysse & Moore (2019) explain how:

Battiste (2013) recommends a trans-systemic approach to analyzing education policy, curricula and pedagogy. A trans-systemic approach to analysis, involves the braiding of diverse knowledge systems to stabilize peace-building education that is socially just, accountable and tenable to a forward vision of the greatest potential for all students. (p. 2)

The epistemology of transdisciplinarity (Mitchell & Moore, 2012) will guide my inquiries. In the forward to Nicolescu (2008) *Transdisciplinarity – theory & practice*, Montuori, 2008) describes how:

Transdisciplinarity is an emancipatory project...one that is also inquiry-driven, not discipline-driven, since it recognizes we are living in an uncertain and pluralistic world and so provides us with ways of organizing knowledge and informing action to assist in tackling that complexity. It is not multi-disciplinary since it does not approach problems solely from the perspective of a number of different disciplines, neither is it inter-disciplinary which involves using the methods from one discipline to inform another discipline. (pp. ix–x)

Within the Transdisciplinary praxis, my worldview is pragmatic considering transformational and constructivist perspectives, yet in my pedagogic practice I give greater standing to nonlinear Indigenous epistemologies. The pragmatist view is inspired by the non-dogmatic tradition of John Dewey (1938b). Dewey expanded on J. Peirce and W. James’ conception of pragmatism, “rejecting the dualistic epistemology and metaphysics of modern philosophy in favour of a naturalistic approach that saw knowledge as arising from an active adaptation of the human to the environment” (Mitchell & Moore, 2015, p. 58). As Dewey states, “logical forms accrue to subject-matter when the latter is subjected to controlled inquiry”

(Dewey, 1938a, p. 101). In this pragmatic tradition, I plan to promote “democracy as ‘associated living’: co-operation on the basis of tolerance and equality, towards a more just societal order” (Mitchell & Moore, 2015, p. 58). The pragmatic and practical approach of Montessori pedagogy is consistent with this worldview. Montessori practices an experimental and pragmatic approach to schooling. My pedagogic worldview contains both the shared and divergent philosophies of Dewey and Montessori. According to Gisolo, (n.d.):

[Dewey,] though sharing some ideas with Montessori, e.g., the emphasis on “practical life” activities – thought that education should aim at the implementation of secular, democratic values in society whereas Montessori always kept faithful to her Catholic heritage. Also, Dewey emphasized the importance of fantasy play with raw materials in contrast to Montessori’s structured play in a pre-prepared environment” (para. 13)

The seemingly conflicting approaches to play and structured teaching/learning can be accounted for through an appreciation of the distinction between biologically primary and biologically secondary information (Geary, 2002; Sweller, 2008):

Sweller (2008) in discussing David C. Geary’s thesis (2002) understands that:

by introducing the distinction between biologically primary and biologically secondary information, Geary has explained why learners can acquire some information easily and unconsciously, indeed, are strongly motivated to acquire such information, whereas other information can be acquired only with considerable conscious effort, often requiring external motivation. (p. 215)

This distinction is of importance in the nature education field where there is a tendency to assume that all knowledge can be acquired in the field through social learning. This focus on social learning perhaps stems from a desire to replicate evolutionary teaching/learning practices. According to Boyette & Hewlett (2018):

In studying the literature relating to education practices of Hunter/Gatherers, the rationale given by hunter/gatherers to avoid top down overt instruction is that it would be antithetical to core hunter-gatherer values and autonomous learning. (p. 781)

From this understanding and through the combined strengths of overt teaching (originally driven by the need to pass down numeracy and literacy skills combined with social learning abilities) Howard-Jones (2014) sees the success of the human species as being reliant on these teaching abilities and not on any biological superiority. If this is to be acknowledged, then the importance of education becomes evident as a prerequisite for human survival. Educational

methodologies and curricula for Indigenous students, and by extension for all learners, necessitate both top-down instruction and bottom-up social learning working in a balance. This is of particular importance to marginalized students because:

Policies that deprive indigenous peoples of an up-to-date education also deny them access to cultural tools required for their political empowerment. On the other hand, successful programs of education amongst indigenous peoples are characterized by a ‘‘bottom-up’’ approach that builds upon and strengthens, rather than displaces, the existing tools used to transfer cultural identity and indigenous knowledge across generations. (Howard-Jones, 2014, p. 28)

My worldview regarding secular democratic education is highlighted in Figure 1 in which Barnhardt & Kawagley (2005) identify the differences and crossover between traditional (Indigenous) knowledge and western science knowledge and the scope of transdisciplinary enquiry.

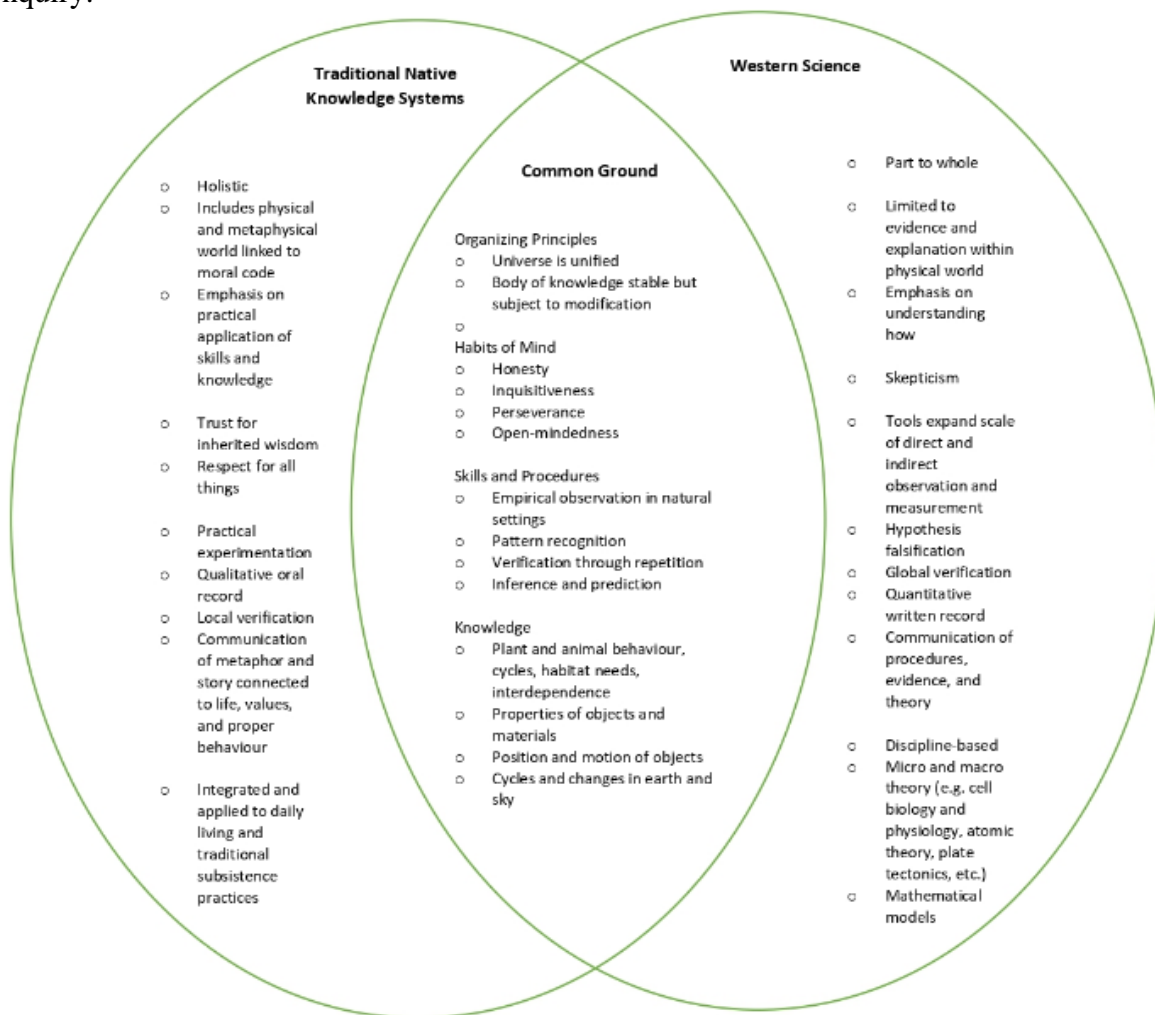


Figure 1 Adapted from Barnhardt & Kawagley (2005), Qualities associated with traditional (Indigenous) knowledge systems and Western science (p. 16).

In Figure 1 the supposed differences between Dewey and Montessori regarding the secular democratic and traditional story and knowledge systems can be seen to span across the spectrum. My worldview acknowledges some of these seemingly contradictory perspectives within a democratic and inclusive value system whereby discriminatory beliefs or oppressive practices are not accepted even if they are considered traditional or religious. The spiritual perspective as described by Burton (2002) and included within the Figure 1 scope of considerations, is also acknowledged as relevant within my pedagogic worldview:

Spirituality refers to that realm of human experience characterized by varying mixtures of three qualities. First, spiritual experience is either nonrational or extrarational in nature; it is a way of knowing that is not accessible exclusively through calculative thought—although the rational process may well bring one to its doorway. Second, such experience is transcendent: it involves a sense of moving beyond the rationally constructed boundaries of the self. Third, such an experience is unitive, involving a sense of unity with existence and forces underlying its continuing creation. (p. 32)

Within the transdisciplinary praxis, I accept these inclusive multiperspective paradigms, and agree with Avenier & Thomas (2015) who do not “consider that any of the disciplines of IS, organization, and management sciences should subscribe to one and only one epistemological framework” (p. 90). Avenier & Thomas (2015) further argue that “pluralism in philosophical, theoretical, and methodological positions is a great asset to these disciplines” (p. 90). As the issues facing the GET organization are complex due to dealing with a wicked problem and considering multi demographic perspectives within an egalitarian framework, then the use of “different theory-building approaches to study disparate issues is a better way of fostering more comprehensive portraits of [these] complex organizational phenomena” (Gioia and Pitre, 1990, p. 587).

In adopting a Pragmatic constructivist position, Avenier & Thomas (2015) describe how: [p]ragmatic constructivism has the following property: for the sake of framing a particular research project conducted in this epistemological framework, scholars have the possibility of taking any beliefs concerning the possible nature of the world (that are consistent with their experience of that world) as working assumptions, particularly the critical realist ones or the interpretivist ones. (p. 88)

Following these conditions, my working assumptions, described as non-dogmatic pragmatist, include an openness to the critical realist and transformative perspectives. Denzin and Lincoln (2000) identify a transformative paradigm as “including critical theory and

participatory approaches to inquiry within a transdisciplinary praxis. The overarching assumption in this perspective is the presumed existence of human oppression, and the resulting need to alleviate such oppression” (Greenberger, para. 26). The pluralistic consideration of both transformative and constructivist pragmatism stems from a belief in the importance and also the limitations of the transformative paradigm and critical theory.

Bateson (1972) explains that:

When you narrow down your epistemology and act on the premise “What interests me is me, or my organization, or my species,” you chop off consideration of other loops of the loop structure. (p. 484)

Following this belief, I agree with Bowers (2008) description of the necessity to reframe critical thinking within cultural commons traditions:

“critical thinking” carries forward the Enlightenment idea that equates critical thinking with a linear form of progress—while at the same time marginalizing awareness of the importance of cultural traditions being referred to here as the cultural commons. (p. 305)

With particular application to the organization’s nature education pedagogy, Mitchell and More (2015) point out that “[the] pragmatic approach understands that knowledge grows out of experience with nature and our thoughtful reflection on that experience, and that this knowledge is fallible and must be tested” (p. 50). This is consistent with the organization instructors’ pedagogic admonition when presenting teachings to students, “if you believe everything I tell you, you’re a fool; take these teachings and test them in the natural world... but try my way first” (Brown, personal communication, May 10, 2002). Mitchell and More (2015) further sum up this pedagogical ethos:

Politics in Pragmatism presents a holistic view of society that rejects the individualistic. Each human is a contributor and recipient in a reciprocal relationship. Pragmatism examines nature as an environmental consciousness that doesn’t dehumanize nature in the way that classical science treats it... Pragmatism conceptualizes humans and nature in relation. Humans are natural organisms embedded in and dependent upon the natural environment. (p. 52)

Multiple perspectives can work at different levels of scale and though this paper follow a particular epistemological framework and is expressed in a particular language, I agree with Spretnak (2011) in that:

Our hypermodern societies currently possess only a kindergarten-level understanding of the deeply relational nature of reality. (p. 1)

Though I adhere to the pragmatism of Dewey and the critical pedagogical theories of Freire and Montessori, I also realize that both held a certain disdain for the Indigenous as a stage in a linear progressive thought system. My worldview, conversely, encapsulates the non-linear, non-print Indigenous epistemologies as ultimately closer in understanding to the deeply relational nature of reality, though due to my positionality as a diaspora European acculturated scholar/practitioner, I work within the Eurocentric epistemological tradition. Through working with Indigenous educator/scholars and Indigenous epistemologies, my vision is to develop, in cooperation, new pedagogies for the present age. As Kellner (2005) explains:

Deweyan education focused on problem solving, goal-seeking projects, and the courage to be experimental, while Freire developed alternative pedagogies and Illich oppositional conceptions of education and learning and critiques of schooling. It is this sort of critical spirit and vision to reconstruct education and society that can help produce new pedagogies, tools for learning, and social justice for the present age. (p. 69)

Perhaps the route to these new pedagogies will discover that Arabena (2010) is correct in her advocating for a universal paradigm where all knowledge is Indigenous. Following De Quincey (2005) who suggests that an open paradigm would:

examine and re-examine – through direct experience – its metaphysical underpinnings and whenever possible uproot any that seemed to be settling into a system of fixed beliefs. The aim of an open paradigm would be to transcend all belief systems, while not negating any ... the open paradigm is about experience beyond the belief. (p. 75)

Arabena (2010) hypothesizes in her version of the open paradigm that:

Perhaps by approaching all knowledges with indigenous spatial references we would not see ourselves as separate from anything. These spatial references could be used to establish concepts that overcome dualistic schisms that pervade Western anthropocentric knowledge systems. We could come to understand that we are the centre of the Universe because we are its meaning. This meaning could then newly determine the synthesis of knowledges to underpin communities who distribute power equitably amongst all that we are connected to, thus achieving the health and well-being and creative potential of each individual and the community of life systems that support us. (p. 265)

As a diaspora-scholar in Europe and an immigrant settler-scholar in Canada, I will practice critical reflexivity regarding research in Indigenous knowledge systems. Clarysse & Moore (2019) state that:

[for] settler-scholars who engage in trans-systemic approaches to decolonizing education and administrative reform involving Indigenous knowledge systems (including research), critical reflexivity needs to be extended to settler-motive transparency and privilege. (p. 2)

In conclusion, in adopting a transdisciplinary praxis epistemology, I intend to push forward through focusing on the issues relating to the POP in accordance with Leavy's (2011) definition:

Transdisciplinarity is an approach to conducting social research that involves synergistic collaboration between two or more disciplines with high levels of integration between the disciplinary sets of knowledge. Transdisciplinary research practices are issue- or problem-centered, and prioritize the problem at the center of the research over discipline-specific concerns, theories or methods. Transdisciplinary research is responsive to public needs, and methodologically it follows responsive or iterative methodologies requiring innovation, creativity and flexibility often employing participatory research designs [and] has the potential to greatly enhance public scholarship. (p. 9)

In the following section, I will describe how this pragmatic pluralistic worldview has both informed and been informed by a leadership practice born from the evolutionary uniting theories of Boehm (1993).

Lens to Leadership practice

Pursuing the goal of deconstructing environmental education programs as a transdisciplinary scholar has led me to explore the field of cultural anthropology to arrive at a leadership/followership paradigm beyond both capitalist and agriculturalist monotheistic worldviews; a paradigm that is evolutionarily uniting. Boehm (1993) hypothesizes that, as humans, we share a common cultural/genetic trait of a desire for an egalitarian society, and that whilst humans desire leadership, they do not desire to be dominated by individuals:

The human egalitarian solution emerged in the context of bands insisting that their leaders behave with modesty, generosity, and fairness... Persuasion was the name of the game, and excessive exercise of power would reverse the leader's fortunes. Persuasion depends on clear logic, analytical abilities, a high degree of social cognition (knowing how to form coalitions and motivate others), and linguistic facility. (p. 9)

In accepting this evolutionary and biological disdain for authoritarianism and the role of active followers demanding egalitarianism through what Boehm (1993) describes as reverse dominance hierarchy, I am encouraged to utilize a leadership approach that fulfils these requirements.

With this leadership vision as a high capacity phase in mind, I will discuss how the current leadership situation within the GET organization is in a transitional phase (Lambert (2006) working toward this goal.

Established leadership approaches

Lambert (2006) identifies 4 school types in terms of leadership capacity based on her study of high leadership capacity schools. Three stages of leadership are presented from the instructional phase, through a transitional phase and leading to a high capacity leadership phase. Using this ‘stages of development’ model as a guide, the executive director’s leadership style up until the organizations’ split fell within the first ‘instructive phase’, exhibiting attributes and strategies such as continuous learning, strategic thinking, and values-driven decision making (Lambert, 2006). This stage reflected a need for organizational change on the road to a sustainable leadership and organizational position. Instruction of staff followed Lambert’s model for the instructional phase, exhibiting practices including collaboration, group process, communication skills, conflict resolution, and accountability (Lambert, 2006).

The organization being new in its current GET form and having been in a continuous period of development in its previous Coyote organizational form is moving beyond this ‘instructional’ phase on the journey toward high leadership capacity. Any change process would assist in moving the organization’s leaders through the second transitional phase toward the third high leadership capacity phase, bringing the organization to a place of leadership stability and sustainability. The transitional phase is key to the change process, as Lambert (2006) explains:

The transitional phase is the process of letting go—releasing authority and control—while continuing to provide support and coaching. This is a critical phase in the road to high leadership capacity—knowing where the culture is going and when to pull back as teachers emerge into leaders. The transitional phase is probably the most challenging for principals because the range of teacher development is at its widest. (p. 246)

The transitional phase forming the core of the change process which the leadership team of teachers will be working through is the process of “letting go—releasing authority and control—while continuing to provide support and coaching” (p. 246). The high capacity leadership phase that is the goal of the change process will allow leaders to conduct themselves in terms of a reverse dominance hierarchy and therefore to participate with other members of the community to:

think strategically; share concerns/issues; share decisions; monitor and implement shared vision; engage in reflective practices (reflection/inquiry/dialogue/ action); monitor norms and take self-corrective action; build a culture of Interdependency; self-organize; diversify and blend roles; establish criteria for self-accountability: share authority and responsibility (dependent on expertise and interest, rather than role); and plan for enculturation of new staff and succession. (p. 245)

Caretaking the land, gardening, propagating and connecting with life systems are core to the program's skill acquisition and pedagogic process, and I find it useful to describe the leadership styles of the original Coyote organization and the GET organization using a gardening/caretaking metaphor. The Coyote organization can be seen as a local community garden with a community of families and teachers acting as gardeners. Consensus decision making has always been the rule and yet in practice the most determined and loudest voices have usually prevailed. In incorporating the international programs (other gardens) into the community garden through the same leadership paradigm, the system ceased to function well. The local gardeners had little interest in tending other gardens in other places. Gardeners were locally focused and students from other gardens would be invited to the local garden and students from the local garden would visit other gardens, but the focus was always on how these visits could benefit the local garden. It became obvious that the gardeners who decided to create a separate organization (GET) which would run all the programs other than the original local garden project would need a different focus. All gardens needed to be viewed as equally important so that they would feed off and contribute to each other's success. Yet as the GET organization began operations as a board of directors and instructors it was realized that the leadership (gardening) style and structure would also need to change and not just the vision and mission of the organization. The leadership would need to act as a gardening council with representatives from each of the individual local gardens and with no prioritized focus on any particular garden. There could be no central and no satellite gardens. The leadership as it had previously existed represented one or two locations and demographics in its physical makeup and any vision for equality and inclusiveness remained a paternalistic endeavor as inclusion did not exist in its leadership framework. The gardeners attempted to understand and to make decisions regarding other gardens in other ecosystems and cultural frameworks through the prism of its own experience and worldview. This would need to change for the vision to succeed.

The leadership paradigm at the Coyote organization as it existed also did not adapt well to the inclusion of international programs. The consensus decision making process which included parents of students in the local program meant that decisions were made based on parents' concerns for their individual children and community and they were not motivated to take on an international perspective. For this reason, when the international programs and the middle school program separated, the new GET organization was born with a stronger vision yet reverted to a leadership paradigm that worked well for its establishment but not for the fulfilment of the longer-term vision. Continuing with the creation of programs and curriculum born from a Euro-North American cultural foundation and colonial outdoor education tradition, it became clear that a new more inclusive and multicultural and multi-intelligent leadership model and approach would be necessary. The Canadian/European Indigenous/nonindigenous board of directors and instructors needed to benefit from the inclusion of knowledge and experience from specialists in the transdisciplinary fields that constitute the curriculum development goals.

Being in a transitional leadership phase, leadership can be described as being an agent of change. I will next describe how this leadership position informs the distillation of the organization's Problem of Practice (POP).

Problem of Practice

The need for change is premised on an acceptance of our historical position in the new Anthropocene/Capitalocene. Studies and reports show that in over 40 years, which include UNESCO's decade of education for sustainable development (DESD) 2005-2014, goals have not been met (Hallfreðsdóttir, 2011; Krnel & Naglic, 2009; Boeve-de Pauw & Van Petegem, 2011; Legault & Pelletier, 2000; Berglund, Gericke, & Chang Rundgren, 2014). "A consistent finding throughout the studies is that neither students' attitudes nor their behaviour and associated values are significantly affected by school programs for sustainability" (Niebert, 2019, p. 1).

My POP though specific to the GET organization, in general terms concerns the documented common failure of many wilderness, nature, and education for sustainable development school programs to achieve their stated educational goals, and/or provide students with a path to mainstream academic success. There is also a need to bridge the cultural divide that partly blocks international program success through understanding and mitigating culturally specific worldviews, methodologies, and curriculum that favour European and Euro-North American students. The GET organization has attempted to offer programs to cross-cultural

Indigenous, nonindigenous and multicultural groups including underprivileged and orphaned youth from Thailand and Indigenous youth in Ecuador.

The challenge of working with such a mixed demographic has reduced the successful outcomes of programming and stated goals due in part to them being based on mainstream western-informed educational models. North American and European students fail to achieve the level of ecocentric skills mastery that is the vision and mission of the organization and International students from Belize, Ecuador and Thailand are not well served in their need for programs to advance their academic success which would create opportunities to be of better service to their Indigenous and sustainable living communities.

The growth of outdoor wilderness education and nature programs as an adjunct or as an alternative to brick-and-mortar contemporary schooling has been argued to be imperative to the future health of students and the planet yet is hampered by cultural limitations of practice and a lack of mainstream support. The reconstruction of programs would need to follow a thorough analysis of past programs and a deconstruction of their foundations and would necessitate a re-examination of educational goals and future sustainable societies.

During GET's first years of operation since its split with the Coyote organization, an informal series of programs as laboratories in real-world contexts (LRW) have been conducted in Canada, Ecuador and Thailand to workshop new programs and identify needed changes. These programs have highlighted the realization that a more thorough analysis and reassessment is necessary. A K-3 ecocentric Montessori program has also be designed and workshopped in Canada, Spain and Thailand with increasing success regarding combining an ecocentric core curriculum and created learning environments with an academically tested Montessori pedagogy and methodology integrating Montessori Math, Language Arts, Practical life and Socials into the ecocentric framework of skills acquisition with a universal epistemological and transdisciplinary perspective. Building all programs around this K-3 program redesign process rather than continuing with the current schedule of programs around the world would provide for an integrated and streamlined program offering. This necessity is based on an analysis of student needs, an alignment of the vision and mission of GET, and also considers research and literature in the wider fields of environmental education, education for sustainable development and the environmental humanities as a transdisciplinary ecocentric pedagogy. The GET goal of providing a full K-9 ecocentric program based on a Montessori pedagogy will need to re-

foundation itself beyond its wholesale acceptance of its current ecocentric and Montessori curriculum at the 4-9 grade levels and remodel the pedagogic structures evolved from European/Euro North American epistemologies. The success of education programs vary by student demographic and geographic location and a post-colonialist re-foundationing must consider program inclusivity, cultural bias, and scalability in any program restructuring plan.

My leadership position as an agent of change acknowledges that the central element in any successful change process is what “Fullan (2010a, b) describes as capacity building with a focus on results” (Harris, 2011, p. 626). The importance of achieving the stated desired results is at the heart of my OIP and finding strategies to keep that focus at the center of any change plan is paramount. A clear implementation strategy forms the core of my OIP, one that is based on clear achievable goals. So often environmental or ecocentric education goals taken from UNESCO literature get mixed with political expediency at the national level and wishful thinking at the program level to create a gap between goals and results.

The Problem of practice (POP): How can the GET leadership prioritize, design, and efficiently implement and integrate the structural and curriculum changes based on a post colonialist epistemology and transdisciplinary ecocentric pedagogy to serve the needs of a diverse international community of learners toward the creation of a K-9 inclusive ecocentric Montessori education program so that students can develop and master ecocentric skills whilst concurrently achieving mainstream academic success?

Framing the Problem of Practice

I will frame the POP firstly at a macro level, taking a historical and evolutionary perspective. Although it is within the specific organizational framework where the change action will be enacted, an in depth understanding of the macro perspective is essential to position the change at the roots of the problem. The GET organization is but one branch on the tree of ecocentric type educational practices; the roots of this pedagogic tree are where the key to purposeful and effective changes are found.

In framing the POP several questions need to be considered relating to assessing inclusion regarding both participants and post-colonialist worldviews. Understanding both the evolutionary progeny of education that underpins the worldview which the GET organization seeks to use as a pedagogical foundation, and the progeny of GET within the context of the history of the North American nature education movement, is a place to start this assessment.

Exploring this history will facilitate an understanding of how the organization is positioned and needs to re-evaluate itself to more fully realize its leadership goal to identify, prioritize and efficiently implement the necessary structural and curriculum changes. Further, an understanding of EE and ESD development through UNESCO definitions and practical international program applications will allow for a greater understanding of GET's choice to position itself within the ecocentric education movement in approaching the POP.

Evolutionary overview

Looking at the historical overview of the progeny of Eurocentric nature education, the race-related concept of the primitive and the civilized brain and culture is woven into the fabric of its role in modern education. Many students and programs view nature education as primitive, and the term primitive skills is consistently used to describe programs. The GET vision is based on the belief that hunter-gatherer societies past and present represent an ultimate stage in the biological evolution of modern humans. The art and science of tracking provides a unifying basis for curriculum across cultures and a common heritage. In learning skills related to our common evolutionary ancestry, the cultural differences that divide the human family are held in relief for study and sharing. Louis Liebenberg (2013) asks the question "How did the human mind evolve the ability to develop science?" (p. 2). He explores the answer through studying persistence hunting and speculative tracking skills of the Kalahari bushman. Liebenberg (2013) postulates that:

The art of tracking may well be the origin of science. Science may have evolved more than a hundred thousand years ago with the evolution of modern hunter-gatherers. Scientific reasoning may therefore be an innate ability of the human mind...Scientific reasoning was part of hunter-gatherer culture, along with music, storytelling and other aspects of their culture. Science and art should be an integral part of human culture, as it has been for more than a hundred thousand years." (p .4)

The instruction methods and curriculum at GET are based on this reasoning and do not assume that "rational science originated with the Greek philosophical schools" (p. 15), but agree with Leibenberg (2013) who theorizes that:

[the]first creative science, practiced by possibly some of the earliest members of Homo sapiens who had modern intellects, may have been the art of tracking. The art of tracking is a science that requires fundamentally the same intellectual abilities as modern physics... Since mathematics, which may be regarded as quasi-empirical, involves essentially the same intellectual processes as science (Lakatos, 1978), the intellectual

requirements of tracking are therefore also those that are required for mathematics. (p. 17)

At GET all subject areas are rooted in our common hunter-gatherer evolutionary heritage (Tracker School, 2020a).

Historical overview

I will discuss the historical overview, first concerning the nature education progeny that impacts GET's programs, and subsequently concerning how similar issues impact the approach to wilderness expedition and Indigenous travel programs.

Nature education. By the early seventeenth century, New England's first British colonists arrived in North America as religious refugees from Britain's civil war instigated in part by the Reformation and the subsequent exclusion and persecution of various Protestant sects. Burton (2002) notes that these early colonists were “close-knit urbanists, not independent explorers. America was not a new Eden into which they were happily moving but a grim and forbidding wilderness to which they felt they were being banished” (p. 66). According to Borland, through this same colonial contact, European philosophy began to be influenced after 1492 by the thoughts and ideas of Indigenous peoples of the Americas, Africa, Asia, and the Pacific. During this 'age of discovery' not only were material riches returned to Europe, but also new ways of thinking. He has contended that:

[W]ith the writings of Rousseau [and] Voltaire...we might suggest that the traditional folk democracy of parts of Europe became viable again when merged with the actual knowledge that there were functioning democratic/communalistic societies in the world. (p. 206)

This pedagogic shift continued through Rousseau to the experimental pedagogical work of Pestalozzi, influencing both Montessori, Dewey and Steiner, and much of contemporary alternative and mainstream schooling.

J. Sheridan (2013) describes how the continued influence of romanticized 'ideas' of Native Americans continued to influence both Europeans and European Americans through the 20th century. Ernest Thompson Seton (1860-1946) was a naturalist and a founder of the scouting

movement. In 1902 he founded the Woodcraft Indian movement; an outdoor education program for youth. He was asked to join and help set up the US scouting movement in 1910 and was honored to have written the first US scout manual. He used an “Indian” base for his movement and organized the scouts into 'tribes'. Seton left the movement and in 1930 founded the Seton College of Indian Wisdom in Cimarron, New Mexico, “for the teaching and study of Indian wisdom-spirituality and environmental thought- for both adults and children” (p. 114). His ideas of ‘playing red Indian’ were based, according to Sheridan, on “a recapitulationism perspective”. Sheridan cites Ecological historian Anna Bramwell (1989) who writes that the thing that “gives Seton’s activities its characteristically ecological scientific rationale was the belief that boys went through the stages of civilization as they grew up” (Bramwell, 1989 p. 94), and of course, the “Red Indian” stage was a prior stage to the civilization the boys would enjoy in adulthood” (p. 114).

Borland (2013) writes that “the term outdoor education was first coined by Dr. L.B. Sharp, in his 1943 article Outside the Classroom” (p. 208). The rise of outdoor education centers was based on Sharp's (1943) ideas. In the 1960s as the economy boomed, a new development in outdoor camps emerged. With new roads going to wilderness areas, cheap gas and a new 'car culture' coupled with the closing of one-room schoolhouses and the busing of rural students to central large schools, the distant wilderness education centers became the location for an outdoor learning experience. The idea then became entrenched that you had to go far away into the woods to experience and learn from nature. With the economic recessions of the seventies through the eighties, the cost of running these wilderness centers caused them to be the first casualty of education budgeting. The 'science' part of the nature curriculum began to be taught in the brick-and-mortar schools and the wilderness education centers had to reinvent themselves as 'outdoor adventure' centers.

Wilderness and Indigenous travel. In her paper, Davidov (2012) describes the historical and cultural challenges these programs face examining the concept of 'wildness' from a historical colonial perspective and relates this continuum to the present-day eco-primitivism with special reference to Ecuadorian ecotourism jungle projects. She explains how ‘the exotic’ is often synonymous with 'the wild' and how this view is a part of the legacy of colonial racism and

imperialism. Historically, the author examines how under the European colonial gaze, Indigenous Americans were viewed as 'strong and brave' on the one hand and 'inferior, weak and immature' on the other. "Today it is the 'good savage' that is a prominent archetype in the symbolic universe of pseudo-colonial environmentalism" (p. 470).

Davidov (2012) continues to examine the role of the undiscovered wilderness in colonial literature and worldviews and how in this present day there 'are no blank areas on the map' anymore and "Indigenous communities perform the 'ethnographic present'" (p. 472). She describes our modern western view of the Indigenous as seen through the prism of 'fantasy-as-nostalgia'. Tourists, motivated by this nostalgia, seek out such "otherness," and return with mementos, whether in the form of crafts or photographs. These objects "confirm" that the tourists partook in an "authentic" cultural experience, that ubiquitous phantom in both colonial and postcolonial fantasies (p. 473).

ESD and Ecocentric Education

The GET directors need to clarify which of the UNESCO and ecocentric goals are realistically attainable and which it subscribes to. UNESCO goals for ESD are sometimes incongruent with inclusivity goals, goals supporting Indigenous education, and goals specifically related to ecocentric education that consider the needs of the non-human world and alternative economies based on the circular economy and degrowth (Kopnina, 2020). Ecocentric goals also need to consider students' capacity for change based on the psychology of change and how feelings and experiences of "anxiety, frustration, overwhelm, guilt, grief and hope" (Verlie, 2019, p. 751) can impact learning outcome goals and how "affective adaptation is therefore a crucial element of climate change education (p. 751). Practicing these pedagogic goals directed at the level of students' worldviews can, though, be transformative. Cavagnaro and Curiel (2012) explain why worldviews are central:

Because everything else follows from the way we look at reality, the moment we are able to embrace a new, sustainable, world view our minds will open to new possibilities; we will be able to understand which other steps are needed and find ways to actually take them. (p. 168)

From this explanation, Meadows (1997) concludes that:

People who manage to intervene in systems at the level of a paradigm hit a leverage point that totally transforms systems... In a single individual it can happen in a millisecond. All it takes is a click in the mind, a new way of seeing. (p. 84)

In choosing goals from both UNESCO and ecocentric paradigm sources and considering the psychology of change, Archer (2019) offers direction for GET to state its goals based on a critical realism analysis; creating ‘concrete utopias’ as a vision with “‘possibilities’ that are real because realizable” (p. 239). This would entail an analysis of all *liabilities* and *capacities* in respect to the three ‘orders of natural reality’ as shown in Figure 2:

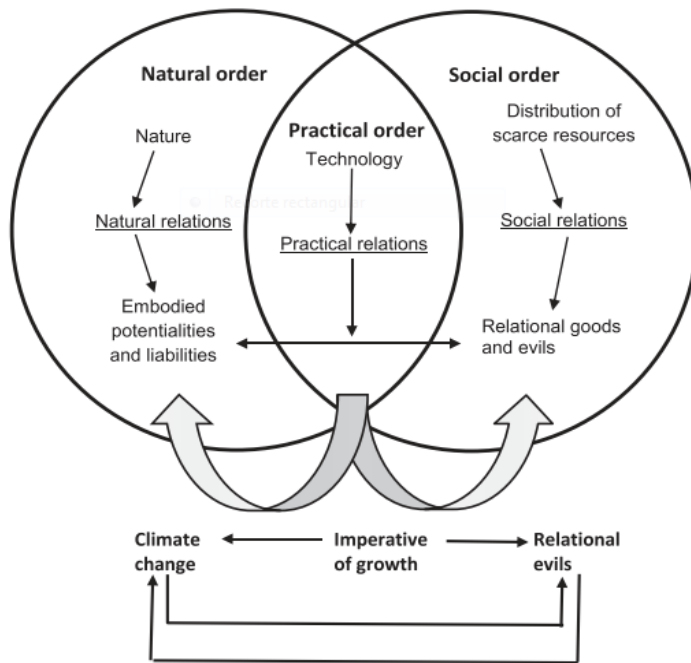


Figure 2. Relations between the three orders of natural reality (adapted from Archer, 2017, p. 125).

Based on such an analysis of liabilities and capabilities, GET management can begin to measure and decide which goals are attainable and/or a priority in any educational endeavor. For example, Archer (2019) explains that in consideration of liabilities:

the greatest of which is the extinction of humanity climatically through rendering the planet uninhabitable or through nuclear warfare. As the first time that we live with the possibility of our species-extinction, so for the first time the entire population must choose between succumbing to its ultimate liability or collaboratively co-operating, using its combined capacities, to avert this conclusion. Facing finitude is an unprecedented (morphogenetic) feature that now outweighs our other concerns. (p. 246)

Considering such liabilities, GET must also acknowledge its capabilities. There may be no leverage point to affect nuclear warfare, but there could be capabilities to affect local

environmental regeneration or to add a small seed to the myriad of others from those who are working to international cooperation based on an ecocentric worldview.

Guiding Questions Emerging from the Problem of Practice

To ascertain how the GET organization can more fully realize its goal of being fully inclusive whilst achieving its ecocentric educational goals, an analysis of those goals in relation to its histories and progeny is necessary to find where problems exist and what changes can be made. A gap exists between the ramifications of GET's position in the western nature education tradition with a specifically settler understanding of Indigenous teachings, and its goal of being an inclusive ecocentric universal education. This gap is augmented by the consequence of not having a coherent and consistent pedagogic methodology on which to build a solid curriculum. How can GET management design its programs to break out from being both a program that caters to a limited demographic and whose internationalized programs are not usefully serving Indigenous and subsistence and underprivileged students? This lack of inclusivity and diversity also prevents the GET organization from fulfilling its ecocentric education goals for Euro/ Euro-North American middle-class students.

A first line of enquiry and an important factor is a description of the various demographics and their particular situations and needs relating to ecocentric education programs. Indigenous and nonindigenous demographic categories can have different worldviews and relationships to the land, nation-state, colonialism, community, and land ownership/access that are useful to explore. Ultimately, each individual needs to have the opportunity to self-identify and the demographic categorizations in this OIP are only used to understand how GET's programs can become more inclusive through exploring differences in participants' lack of or abundance of privilege, entitlement, power, voice, input, and participation.

As GET programs exist within and out of particular histories, to address the needed changes, a new multicultural approach is needed whereby other histories can be told and considered, and the stories combined toward a new understanding of how the GET organization can better function as an ecocentric community of learners. This multicultural approach does not have the goal of homogenizing ideologies simply to produce an entirely new monoculture. Instead it follows Arabena's (2015b) goal of acknowledging that diversity in the essence of life and should be supported in order to flourish.

In the next section, I will discuss this vision for GET's future goal in terms of both structural and curriculum change.

Leadership-Focused Vision for Change

The leadership vision for change in terms of both structure and curriculum understands that ecocentric education deals with the wicked problem of anthropocentric/capitalist environmental destruction. Lehtonen, Salonen, Cantell, & Riuttanen (2018) perceive climate change as a wicked problem "as it is a huge, complex and systemic challenge, difficult to clearly define or foresee the consequences of solutions" (Lehtonen et al., 2018, p. 860). Their research includes the question "What kind of dismantling of dichotomized thinking and awareness of interconnectedness is vital in designing sustainability education and why?" (Lehtonen et al., 2018, p. 861). The authors summarize their argument, expressing the need to dismantle the modern fragmented worldview and demolish thought in dichotomies. They further advocate the need for:

Collaborative learning, phenomenon-based learning and arts-based learning as experiential, embodied, collaborative and creative learning approaches are suggested as effective means that could enhance an awareness of interconnectedness. (p. 865)

To achieve this type of collaborative and phenomenon-based creative learning, if it wishes to be inclusive, would necessitate creating a collaborate organizational structure and bringing together a diverse community of curriculum designers.

Organization Change Drivers

The drive for change is born out of 20 years of experience attempting to meet the needs of students and communities through GET's ecocentric collaborative and phenomenon-based creative learning programs. Community and student needs differ geographically and demographically. The first driver relates to the need for Indigenous and sustainable living communities to achieve academic success through graduating high school and mastering English and Spanish whilst at the same time remaining connected to their traditional communities and mastering traditional skills. North American and European students need to form closer connections to the natural world with all the resulting physical, psychological and emotional benefits, plus the grater societal needs for an education that develops a deeper intercultural connection through a post colonialist consciousness, resiliency to economic and physical change and the building of an ecocentric skill set, forms the second driver. The GET leadership in

seeking to align these student, community and societal needs is driven through this change process. To conclude, the core change driver is to be efficacious, teach what we purport to teach and bring students to a skill level that is useful for them as individuals and for society. This entails fulfilling a varying list of requirements at different levels and aspects of the organization. For this organizational multidimensional process to succeed, manageable steps must be designed and undertaken that understand priorities and efficiencies. More depth rather than breadth is the desired result of this prioritizing and efficiency drive.

The GET leadership imperatives identify organizational structure and curriculum content and design as key to this process. I will next explore how a vision for diversity in structure is core to the change process, and follow with an exploration of needed curriculum change.

Structure

Structural goals and challenges are identified relating to the issues of attracting, maintaining and serving a multicultural/multi-demographic student body and instructor faculty. Faculty would be involved in creating a forum for the planning, design, and facilitation of programs that will build capacity and facilitate scalability through training and cooperative transdisciplinary field research. How can the organization create a diverse teacher/instructor/Elder faculty and maintain a structure where each can perform optimally and what challenges must be overcome to achieve this?

Even though GET's pedagogic practice includes both social learning and overt teaching, a focus on social learning is the aspect most lacking in mainstream education and an area where GET programs can make a difference. It is also the area that necessitates the creation of a quality faculty with an effective student relationship structure and practice.

In exploring social learning strategies through cognitive psychology, neuroscience, and evolutionary biology (Kendal et al., 2018), the importance of social learning and how and when it is best applied is addressed. "Social Learning Strategies Shape What, When and Whom to Copy Learning that is facilitated by observation of, or interaction with, another individual or its products, is known as 'social learning'" (Kendal et al., 2018, p. 651). Regarding the 'youth climate strike movement', the social phenomena whereby students look to scientists and media-related evidence of a climate crisis over and above their parents, schoolteachers, and legal obligation for compulsory schooling is an example of the ability of social learners to gauge who

to learn from. These same strategies are important tools to understand in developing faculty and pedagogic structure in an educational program utilizing social learning.

In a study of programs run by nonindigenous leaders that are not specifically designed for Indigenous students, all interviewees concurred that students were primarily of European descent (Krieger, 2014). Programs that wish to include students other than those of European descent need to include leaders, program designers, and administrators of other cultural groups and communities so that the various cultural lineages can create and co-create programs that have meaning and resonate in a way that is not European/Euro-North American culture-bound. At the same time, the power and cultural structures that maintain a hierarchy of knowledge and academic merit need to be both examined and redesigned within the organization culture, and communicated to stakeholders. Room for epistemological diversity needs to be created within the structure through the foundational pluralistic worldviews held by the leadership based on an ethical and moral code that places human rights and the rights of nature at its core.

Beyond the pragmatic transformational paradigm which acknowledges examining power relations as key to achieving positive change, a more constructivist viewpoint realizes relational values beyond power structures. A leadership vision to hold a place for each individual and group to be held beyond their political and economic power relations within globalized capitalist structures can lead to a truer experience and understanding of how we can move forward as a spiritual-based diverse community of learners. Both visions need to be held as without the critical pedagogical work, there can be no realization of moving beyond it.

As Culture is not static and sharing will always happen either intentionally or by osmosis, communication on an equal footing is necessary if the intention is to learn and make good choices that will benefit all communities and the natural world. The financial, political, and status-based disadvantages of many communities and cultures would need to be eliminated or consciously acknowledged and countered for equal curriculum design contribution and access to these programs. Research would be needed so that all stages from planning, design, leadership, and function could honor different cultural perspectives, histories, and meanings in the manner that public education and healthcare are changing (where access and inclusion are considered a goal and priority). This is especially important if it is agreed that these natural world programs and practices are more important than mere recreation and are indeed necessary for overall

personal health, a building of a more sustainable and regenerative relationship with the environment, and a well-rounded education.

Curriculum

An economic breakdown into three divisions is useful in designing a successful curriculum between over-consumers, subsistence sustainable consumers, and those who do not have enough to meet their living needs. In terms of ecocentric education programs, each of these three groups would have different needs and a different pedagogical goal. For the over consumers, a degrowth, resilience strengthening, and sustainable skills training would be more appropriate. For those in a subsistence and sustainable living situation, support to maintain the base needed for the lifestyle in terms of land access, economic, educational, and political resources are needed. For those who are not able to meet their living needs, both physical and non-physical, then resources and help at all levels are necessary.

To make the curriculum changes and produce the materials and learning environments based on the pedagogical criteria analyzed above, there will need to be a period of bringing together stakeholders to design, produce, work on, and test environments, curriculum, and materials.

Leadership vision for goals and learning outcomes toward which curriculum design would be directed are multifaceted and would need to be interpreted by a diverse design team. Existing GET goals that can achieve this include the need for ‘partnership education’. Hutchings’ (2014) references Riane Eisler's (2005) ‘partnership education’ regarding the core values of an ecocentric program curriculum as:

- Helping children grow into healthy, caring, competent, self-realized adults.
 - Providing them with the knowledge and skills that can see them through this time of environmental, economic, and social upheavals.
 - Equipping them to create for themselves and future generations a sustainable future of greater personal, social, economic, and environmental responsibility and caring.
- (p. 4)

Inclusion of Indigenous content and pedagogy in curriculum design follow the BC First Nations Education Steering Committee (2008) principles which state that:

- Learning ultimately supports the wellbeing of the self, the family, the community, the land, the spirits, and the ancestors.
- Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, reciprocal relationships, and a sense of place).

- Learning involves recognizing the consequences of one's actions.
- Learning involves generational roles and responsibilities.
- Learning recognizes the role of indigenous knowledge.
- Learning is embedded in memory, history, and story.
- Learning involves patience and time.
- Learning requires exploration of one's identity.
- Learning involves recognizing that some knowledge is sacred and only shared with permission and/or in certain situations.

First Nations Education Steering Committee (2008)

And follow the appropriation guidelines that state:

While educators are encouraged to integrate Indigenous knowledge into schools and classrooms, it is important to also caution against appropriation. Appropriation occurs when non-Indigenous people take elements of Indigenous knowledge as their own. Much Indigenous knowledge is context-specific, and as a result when taken out of its context can be misinterpreted, mis-represented or mis-used. This is a form of cultural exploitation.

Province of BC (2017)

Specific to ecocentric education, curriculum exploration will encourage students to develop a critical ability toward a reevaluation through culturally shared learning opportunities.

Kopnina (2020) surmises that such a curriculum:

may need to be based on the past, embedded in the traditional knowledge systems, where nature was accepted as not just a resource to be consumed, but as a partner and the teacher (Bonnett, 2007). Today, more policy-makers and scientists realize the importance of combining both Indigenous and science-based knowledge (Weiss, Hamann, & Marsh, 2013). In this context, "universal" education may yet become a vibrant patchwork of highly diverse and complex systems of local knowledge rather than a straightjacket of economy-centered anthropocentric indoctrination. (p. 8)

In conclusion, change can be seen as a two-step process. Step one involves identifying priorities and efficiencies with new leadership practices and structure. Step two entails developing curriculum and creating learning environments for a more effective K-9 ecocentric Montessori learning community. These change processes toward addressing how the GET leadership can prioritize, design, and efficiently implement the structural and curriculum changes based on a post colonialist epistemology and transdisciplinary ecocentric pedagogy to serve the needs will be based on the previously discussed GET leadership experience and knowledge that:

1. Taking students without a lot of knowledge, skills and experience into other cultural environments does not lead to success.

2. Political effectiveness requires good communication and connection skills that can be gained by English language and Spanish language acquisition and connecting with institutions with resources.
3. The Montessori pedagogic system is successful at math and language and executive function education across cultures.
4. Land based experiential ecocentric education that is practical skills acquisition based develops problem solving resiliency and earth and community connection skills that are necessary for a successful Anthropocene.
5. Epistemological worldviews matter and are central to understanding actions and approaches. A common understanding in this area is necessary in cross cultural educational programs. A common epistemological foundation and understanding is necessary as a goal.
6. Graduation grade 12 is a necessary goal for any education system for students. Yes, it must not subsume ecocentric education goals. It is essential but must exist with ecocentric pedagogic goals and not be central with ecocentric education as an add on or segment of it for program success.

Organizational Change Readiness

The GET board of directors are ready for change; it was this readiness that led to its creation and the breaking away from the parent Coyote organization. Change readiness of new and potential stakeholders of GET programs also need to be considered. Current and past stakeholders are the BC Ministry of Education, local school boards, BC public and private elementary, middle and high schools, international schools, charitable foundation schools, Indigenous schools, Indigenous communities, Indigenous educators, homeschool families and organizations, distance learning centers, local BC universities, unschooling communities, and exchange student families. Potential and new stakeholders include ecocentric education supporting scholars and university departments, university transdisciplinary & environmental humanities departments, grassroots environmental organizations, Indigenous environmental and political action organizations, international earth defenders of local communities, and environmental local support networks and organizations.

As GET was formed out of the Coyote organization, a research project was undertaken to further understand the diversity and inclusion issues that were apparent in the student body at Coyote and to ascertain if this was a particular issue or a more general issue across other North American nature based ecocentric programs for youth. The study was conducted as the thesis for a master's degree program. Eight organizations covering a range of geographic and education focus participated in the study. Themes that arose from the study were the evident Euro-North

American focus and progeny of programs and the consequent student body makeup. Male gender bias also existed in curriculum focus and the understanding and application of Indigenous technology. Different levels of Indigenous cultural appropriation was also seen as an issue and this affected Indigenous/nonindigenous relations and Indigenous student inclusion.

From this study it was concluded that change was needed and yet amongst existent student families there was resistance to change. Since the Black Lives Matter movement has gathered pace, nature education organizations are finally confronting the lack of diversity in their management, instructing staff, supporting communities and student body. The resistance and fear of other cultures and demographics still exists but there is growing awareness that this resistance both within individuals and in society in general needs to be addressed and that the work is deep and involved and changes can involve personal as well as societal reckonings. There are more and more families and students ready to participate in this work and yet the net must be cast further to bring together stakeholders who are ready for the work involved in these changes that may not obviously involve immediate personal gain for Euro-North American students.

Operating as a partner to the Ministry funded distance education programs, the GET organization charged a top up fee above the ministry funding to operate as a full-time program. Working closely with students' certified teacher advisors through the distance learning organization, GET directors were able to design and operate a transdisciplinary ecocentric program (school) within ministry guidelines and structures. The problem arose, however, when it was discovered that the GET organization could not advertise its success. Although these affiliated Ministry teachers supported the program and verified its success through students' curriculum portfolio achievements, the GET organization was not permitted to advertise its transdisciplinary program in order to recruit students and was only allowed to present itself as a nature-based program supporting distance learning programs as a complimentary activity. With Montessori certified teachers operating the GET program, the middle school level program had developed into a full educational model yet could not publicly present itself as such although it did not transgress any regulations in its operation under the Ministry guidelines and all learning outcomes were monitored and assessed by distance learning partner organization Ministry certified teachers. The GET organization was informed by the Ministry that although the programming was good, it must be presented only as a nature based supplementary program. This ongoing situation makes it impossible to grow and expand in the direction the organization

had planned. The option of becoming its own independent distance learning centre was closed due to the provincial moratorium on licensing new distance learning centres. Two other options were available: to become a registered BC independent school or an independent nonregistered school. Both of these options would entail finding a school building that was zoned for education and would meet code requirements. Also, the choice needed to be made whether to follow the BC curriculum guidelines and receive Ministry funding or to be unregistered and follow another curriculum (i.e. international baccalaureate) and be unfunded by the Ministry. The unfunded K-9 model, which would prepare students for either a Dogwood or international baccalaureate grade 10 program offered the flexibility and range that would allow for the GET organization to follow its educational vision. To prepare for this, however, would require a period of curriculum, programming and leadership model development and the creation of a funding model that would allow for an inclusive student body. This process was begun in an informal way through conducting a series of experimental programs with school partners in BC, Thailand, Ecuador, Belize and Spain. Formalizing and extending stakeholder input and participation is a next step in the process. This could consist of increasing particular stakeholder input from university partners (present and new) and community partners.

Local school boards and public-school teachers, and parents of students' resistance to change stem from the legal and practical relationship to mainstream education. There is no real interest from families to have their children educated in a program that does not lead to graduation. At younger ages, there is some interest in alternative education programs outside curriculum guidelines, particularly at kindergarten to grade 5 levels, though mainly from a limited demographic of Euro and Euro-Canadian educated families who have the resources to supplement the students' nature-based program education with private academic tutoring. Their purpose is for students to gain an advantaged position when entering middle and high school. Indigenous students' families are equally focused on graduation and would look to supplement mainstream brick-and-mortar education with Indigenous-led cultural programs rather than cross-cultural programs. For this reason, a core goal of any programming must be to work toward graduation and to achieve academic success for all students either toward a Dogwood diploma or international baccalaureate diploma. This goal must also be foundational in any promotional material and branding.

In working with charitable foundation schools and programs for disadvantaged youth in Thailand and Ecuador, other resistances to change were experienced. Similar to Indigenous students' needs in Canada, a focus on graduation from the state school system was perceived as the most important goal leading to greater opportunities and the ability for students to give back to and support their communities. There was some acknowledgment in Thailand and Ecuador to the idea that access to higher education and potentially well paid and meaningful careers offered as a route out of both poverty and discrimination is a false promise, and that at most a small percentage can succeed. Though the success of this small percentage was beneficial to the communities and important to those students, most students from these demographics fail to achieve mainstream education success and at the same time become alienated from their communities' subsistence living skills and mindset. The majority become plantation workers, factory workers, salesclerks and filled other low paying jobs leading to the loss of traditional subsistence farming lifestyles and becoming poor city dwellers with limited opportunities for financial life advancement in the capitalist hierarchy. Prototype schools in Thailand teaching subsistence living skills offer a paradigm for change that GET management can consider. For all these students, graduation is important but a recognized graduation certificate in ecocentric education is what the GET organization needs to develop as a long-term goal to meet student's needs. To mitigate these resistances, English and Spanish language acquisition plus academic support toward high school and college graduation needs to form a core component of programming as this skill is essential and hugely beneficial for most students of this demographic. For this reason, any plan for change needs to involve working with fewer highly motivated disadvantaged students over a longer term.

College level students, Funding and Sponsorship partners

The change readiness level of potential sponsoring tertiary education institutions is being assessed whereby a board approved version of this OIP will be presented to interested sponsors with which the organization already has a relationship and conducted programs, including Royal Roads University in Victoria, BC, Vancouver Island University in Duncan, BC, Prince of Songkhla University in Phuket, Thailand and The Hague University of Applied Sciences, Den Haag, Netherlands.

Starting with building on existing working relationships in providing teacher training courses and exchange program opportunities for the three BC universities and developing

working relationships with the European and Thai universities where there are current academic connections and discussions is where the lateral capacity building will begin. Building on current community relationships and finding and communicating with new potential tertiary educational and environmental organization stakeholders, GET directors will analyze readiness for change at each individual institution and organization to build the foundations for further lateral capacity building. In any proposed addition or expansion of tertiary education programming, change readiness would need to be assessed considering all existing and potential participant-stakeholders and staff. Though the directors/teachers of GET may be ready to embark on such a change model-experiment, their readiness depends on the participation of students, families, and sponsors both practically/financially and ideologically.

Chapter 1 Conclusion

In pursuing GET's POP of how to prioritize and efficiently integrate and implement the necessary identified structural and curriculum changes to serve the needs of a diverse community so that students can develop and master ecocentric skills whilst concurrently achieving mainstream academic success, a two-step process of change is necessary. The initial step would involve identifying priorities and efficiencies with new leadership practices and structure. The following step would constitute the development of curriculum and the creation of learning environments toward the ultimate change goal of facilitating a more effective K-9 ecocentric Montessori learning community. The necessity to reevaluate and identify the core foundational aspects of programs that work, and to deconstruct the elements that are not useful will allow for a reconstruction to occur in concert with other organizations and researchers. It would involve bringing inclusivity into the design and change process itself, building on relationships with tertiary education organizations, and redesigning curriculum within such a new structure with expanded curriculum goals. In Chapter 2, the planning and development of a plan to address the POP will be examined.

CHAPTER 2: Planning and Development

GET's leadership approach needs to address changes to its leadership approach, consider frameworks for leading the change process, and perform a critical organizational analysis in order to choose a change solution from considered options to reach its planned organizational change state of efficiently integrating and implementing the necessary identified structural and curriculum changes to serve the needs of a diverse community so that students can develop and master ecocentric skills whilst concurrently achieving mainstream academic success. I will begin this chapter discussing how a facilitative and distributed leadership approach, which practices systems thinking and lateral capacity building, will propel change forward. I will approach this discussion from a transdisciplinary perspective considering cultural anthropology, educational change theory, and various laboratory in the real-world (LRW)/laboratory school practices.

Leadership Approaches to Change

The organization's pursuit of capacity building across university environmental humanities departments will adopt facilitative leadership skills that can build effective networks, as advocated and practiced by Fullan (2016). "[A] facilitative leader is a person with authority or influence who encourages others to get up and do things" (Stamevski, Stankovska, & Stamevska, 2018, p. 215). Rincón-Gallardo & Fullan (2016) continue to explore the essential features of effective networks in education and present their findings as eight essential features that inform a corresponding facilitative leadership approach. They identified features of using deliberate leadership and skilled facilitation within flat power structures; forming new partnerships among students, teachers, families, and communities; and securing adequate resources to sustain the work.

The sustainability requirements of the change process "cannot be achieved unless all stakeholders are involved and all including wider society are treated in an equitable and ethical manner" (Howieson, Burnes, & Summers, 2019, p. 690). The importance of involving and including all stakeholders in the change process can thus be both a sustainability, cultural evolutionary, and facilitative change requirement that GET leadership needs to accommodate.

Rey & Bastons (2018) describe distributed leadership as 'organizational change leadership reimagined'. This "distributed leadership regards the views and opinions of all organizational members as informative and dissensus as creative, rather than depicting such people as resisters who have to be overcome" (p. 154). Its engagement of organizational

members is a requirement for any LRW type process. Leadership can thus be “a collection of actors who face a similar problem, recognize the problem and organize themselves to do something about it” (Howieson, Burnes, & Summers, 2019, p. 691).

Howieson et al. (2019) relate this distributed leadership approach to Dewey’s publics, as it “articulates the move from an aware public...into an active public, one which then ‘organizes to do something about a situation’” (p. 692). The change process at GET requires the mobilization of an ‘active public’ and needs to attract this ‘active public’ of stakeholders through practicing a distributed leadership style. A top-down leadership approach would not be appropriate or successful for several reasons including the fact that stakeholders are in general autonomous to any hierarchical structure as well as having important perspectives to offer. They are generally clients and partners rather than employees (though employees also fall into the partner category, being contracted professionals).

The practice of a facilitative and distributed leadership approach extends beyond the organization's management to the program’s pedagogic practice. The professor as facilitator can shape a shared leadership approach in the classroom. This approach would provide students, as stakeholders, the opportunity to “become more empowered, responsible, self-directed, and aware of systems dynamics” (Bright, Turesky Putzel & Stang, 2012, p. 170). These are important goals for students and stakeholders who become involved in GET as part of the change process, operation, and pedagogic practice.

In considering an LRW type program as a part of any change process, the change leader as facilitator is required to promote expansive learning cycles. The facilitative role, therefore, needs to design sessions that encourage participants to own the change and intervene whilst also participating in and analyzing the change process itself (Englund & Price, 2018). The facilitative distributed leadership role can, therefore, be participatory; not separating leaders from the other stakeholders. In an LRW process, “the leaders’ role ranges from that of a coordinator and facilitator in the knowledge integration process to an instructor in group self-reflection” (Wanner, Hilger, Westerkowski, Rose, Stelzer, & Schöpke, 2018, p.100). At the same time, it must be kept in mind that expansive learning as an ontological western goal needs to be questioned itself, as expansive learning can lead to its rejection as an ontological concept (i.e., is change and improvement a necessary goal or an ecological liability?) (Englund & Price, 2018).

Other themes inform my leadership practice related to this OIP. The first relates to the location of the action for change. Fullan's (2006) ideas around change from the middle (the middle being the school or program unit) are particularly relevant. Fullan (2006) calls for change leaders to widen their network with other stakeholders (schools/communities, districts, and systems) through a framework of lateral capacity building.

For ecocentric education programs, this horizontal linking provides a route that could lead to greater success. Fullan (2006) further emphasizes the need for sustainability in system thinking to bring about a constant and much-needed change in any educational setting, through preparing leaders to be systems thinkers.

The second theme relates to two perspectives for viewing organizational culture highlighted by Connolly, James, and Beales (2011):

A realist perspective views organizational culture as an external phenomenon, that is, an objective feature of the organization. From an interpretivist perspective, organizational culture is a subjective experience and a construct of the individual's inner world. (p.7)

My conclusion relating to this perceived dichotomy is that the interplay is less a straight line of change and more of a back and forth driven by other external forces and changing realities. Relating to my proposed OIP, this conclusion would lead me to consider the interplay of perspectives in designing proposals for change. Along the same line of reasoning, the question regarding power, energy, and relationships relating to change, arising from the statement that "in organizations, real power and energy is generated through relationships" (Wheatley, 2006), leads me to explore this interplay of forces through building relationships between stakeholders through the lateral capacity building route.

The third area of relevance concerns the motivation and context for organizational change. Fullan (2007) identifies seven core premises for change and lists motivation not only as the first one but also states that "(t)he other six core premises are all about motivation and engagement" (Fullan, 2007, p. 8). He goes on to discuss how people can be motivated to identify with larger parts of the system: "For example, when principals interact across schools in this way, they become almost as concerned about the success of other schools in their network as their own school" (Fullan, 2007, p. 10). This provides more cause to pursue lateral capacity-building strategies to achieve greater success in the context of my OIP by building mutual benefits across international programs, from small to more established and more formal to

informal.

A resonant element found in the first two chapters of Cawsey, Deszca & Ingols (2016) was mirrored by Hargreaves's (2008) assertion that '(s)ustainability and even sheer survival must now be our chief priorities" (Hargreaves, 2008, p. 232). This would bring me to a fourth theme: the conscious acknowledgment and prioritizing of the importance of education for sustainable development and related programs. These need to be kept at the forefront of the leaders' minds to overcome internal and external resistance to change through working with that resistance.

Hargreaves (2008) sums this up:

The last two decades have been dominated by Anglo-Saxon strategies of soulless standardization, measurement-driven improvement, and forceful intervention that have incurred only widespread poverty and inequity as well as other social waste. It is time for other more sustainable sensibilities to take their place — and the climate is certainly ready for it. (p. 232)

For the program management to be sustainable beyond the life of the individual leader, there is a need to prepare leaders to be systems thinkers (Fullan, 2006). In developing a level of sustainable leadership, GET's structure can focus on two of Fullan's (2006) eight recommendations; 1) build lateral capacity through networks, and 2) lead with a dual commitment to long-term and short-term goals. Fullan emphasizes the need to address short-term goals. Local and contextual goals can create a positive atmosphere for change. When smaller demands are met, there is more energy for bigger tasks. With GET's possibly overwhelming long-term goals, the need for such a positive atmosphere through focusing and addressing short term goals is an identified requirement.

To summarize, a distributive and facilitative leadership style is best suited to dealing with the change process at GET. Developing lateral capacity and building strong stakeholder relationships provides direction. Likewise, as a continuing paradigm, this leadership approach will allow for continued improvements through stakeholder investment and agency.

Framework for Leading the Change Process

In searching for a framework to lead the change process, the GET organization needs to reach out to include all stakeholders, present, and future. In this section I will explore considered frameworks and frameworks that seem to be most applicable to the change process.

Change as Three Stages (CATS)

A framework for change has already begun at GET in terms of the unfreeze stage as per Lewin's unfreeze - change - refreeze. "Child (2005) points out that Lewin's rigid idea of 'refreezing' is inappropriate in today's complex world that requires flexibility and adaptation" (Cummings, Bridgman & Brown, 2016, p. 34). Cummings et al. (2016) also point out that the Change as Three Stages (CATS) system attributed to Lewin was never actually advocated by him (except for the unfreeze stage). Even though this seems to be the case, through a series of attributions and misquotes, a practical system was born that has been adapted and changed over the years. For the GET organization, the idea of refreezing is inappropriate and though there was a need for the initial unfreezing and change processes, the refreezing is a long process that possibly never ends; it's as if a refreezing is a refreezing into a state of change.

Looking at the bases for some of these CATS change models, I feel that there are specific narrow and not necessarily universal studies that have led to theories and frameworks of change that don't fit GET's sustainable change goals. I suggest that these systems and frameworks are based on narrow data and culturally and economically specific input, which may account for the feeling of incongruence with what a not-for-profit sustainable multicultural organization's needs. The two examples: Lewin (1951) - based on action research with small groups, and Kotter (1995) - based on around 100 American organizations, show how the model can be seen as culturally specific.

As an alternative to CAT and CAT-inspired frameworks for change, Nadler & Tushman's (1980a, 1980b, 1980c) congruence model takes a different approach that seems more relevant to GET's situation and change goals. This framework combines well with Laloux and Robertson's self-governing structures framework. I will discuss how these two frameworks can offer a way forward and provide a structure for the change process.

Congruence Model

The congruence model explains the possible dynamics of the change process in an organization. Organizations are viewed as interacting sub-systems exploring their external environments. Using an organism metaphor and acknowledging the political backdrop as one of the subsystems, analyzing the transformation process without giving prescriptive answers but by stimulating enquiry can thus be used as a tool for organizing thinking emphasizing mutual reliance on the parts. The four components are 1) The work; 2) The people; 3) The formal

organization (structure and systems); 4) The informal organization (power, influence, values, and norms). If you change one of these components, you need to attend to the other three to find a new organizational homeostasis. If the four parts are not attended to, then the unattended components can draw the organization back to the old equilibrium and the change process will end. This useful framework will help organize and monitor change; managing all elements of the organization. The classification of the four components will allow the system-wide change to move as a unit, monitoring how the components affect and are affected by each other and helping in decision-making regarding which components should lead the change (Nadler & Tushman 1980a, 1980b, 1980c).

Figure 3 illustrates the Nadler-Tushman congruence model developed in the 1980s, clearly showing the transformational process elements and the feedback loops between inputs and outputs:

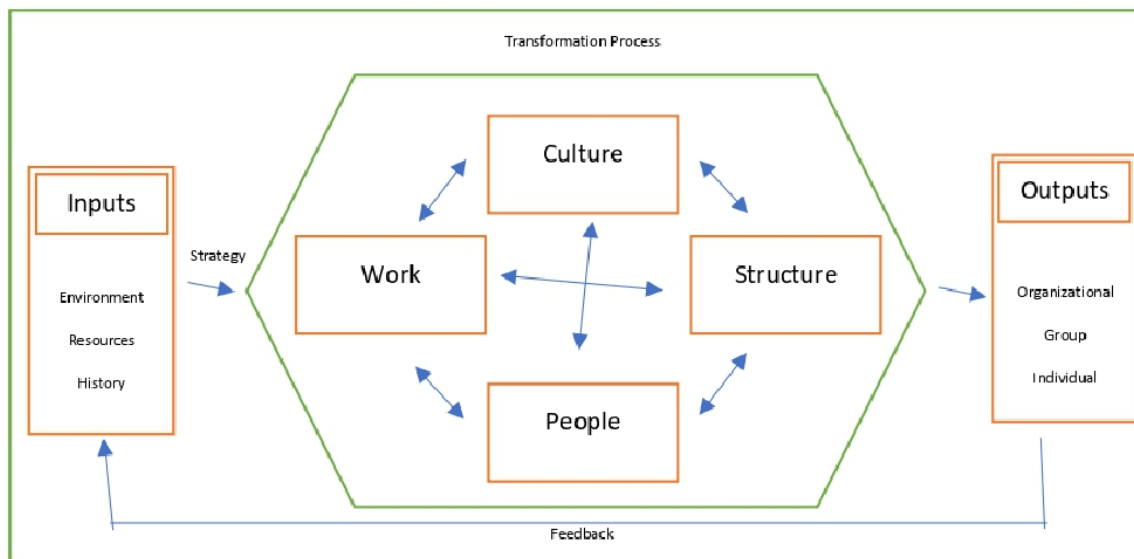


Figure 3 Adapted from Nadler-Tushman congruence model. (Janse, 2019).

Self-Governing Structures - Holacracy

Laloux (2014) and Robertson's (2015) self-governing structures framework (holacracy) similarly views organizations as functioning as networks without a single control centre (like a brain). Self-managed teams work together as a living entity with a consciousness of its collective evolving purpose. At GET, there must be a strong and evident purpose that could hold these autonomously led departments or program sectors together without a central organizing entity. As an input and a part of the transformation process of the congruence model, a central

leadership role would be involved in monitoring balance and adherence to common goals and purpose but allowing the departments' autonomous decision making. This decision making is moderated by the 'advice' system, whereby advice must be sought from other component sectors before being implemented, even if no advice is followed. 'Holacracy' replaces the hierarchy with a flexible set of rules and guidelines.

This input and transformation process would involve composing and applying these rules that keep actions moving with coherent organization vision principles. A common vision is essential. Roles would be flexible; every voice needs to be heard and none should dominate; perfection is not the goal but rather organic movement and growth of the organization. The self-organizing structure mimics and attempts to mirror the natural world and evolutionary processes of separate species working independently yet affecting and being affected by each other on various levels.

It is necessary to choose an interacting and relationship system whereby the potential program departments of the organization, i.e., K-9 programs, teacher training program, LRW program, and community programs could successfully operate and interact; following decided-upon self-governing structures such as nested teams (prescribed systems offered by the system's authors).

Leading the change process following the congruence model with holacracy as an input and constituent part of the transformation process would address both identified steps in any POP solution. First through identifying priorities and efficiencies and integrating, creating and implementing new structures toward the facilitation of the second step of developing curriculum and creating learning environments for the new K-9 ecocentric Montessori program.

Inputs would include a knowledge of the historic and evolutionary roots of the program, the diversity of the community of learners, a diverse leadership practicing a facilitative and distributive leadership style, community, sponsoring and academic partners, and a vision for change based on a transdisciplinary and universal epistemology. The transformation process would consist of a laboratory type program or series of programs and events where input elements are structured around pedagogic practices with the goal of developing the curriculum changes and learning environments toward the establishment of a new K-9 international inclusive ecocentric school program.

In summary, instigating the change process within a congruence model framework with holacracy modelled nested teams as an input and a constituent leadership aspect of the transformation process will allow change to self-organize whilst being monitored and checked by a leadership practicing facilitative, distributed leadership (Cameron & Green, 2019).

Critical Organizational Analysis

In this section, I will analyze aspects of the organization's structure and programs to discover which need to be prioritized in order to design, and efficiently implement and integrate the structural and curriculum changes toward the creation of a K-9 inclusive ecocentric Montessori education. Thousands of students around the world have participated in GET programs and based on feedback and follow up programs have been successful and have benefited students in many areas. Student goals differ by demographic and location. Community Mayan leaders in Belize expressed satisfaction that none of the program students ended up in jail as is common for many Mayan youth in Belize. Ecuadorian forest Kichwa students achieved success through graduation, learning English and finding work in eco-tourism. North American students on ADD medications and diagnosed on the autistic spectrum have found relief from their medications and ways to flourish and succeed with their particular diagnoses. Canadian nonindigenous students graduated high school and pursued careers in the arts, sciences, mechanics, and ecocentric education. Indigenous students have had opportunities to integrate and build their pride in their heritage and share their land in new ways with nonindigenous and Settler students in programs that are healing and strengthening for communities. We honour all these successes yet the following critical organizational analysis will focus on the barriers to the greater goals of GET's leadership vision beyond these successes. It is this striving to do more that propels this OIP and the analysis will help to highlight the need for change as well as pointing the way toward possible solutions.

Concerning the experience and realities at GET, I will describe scenarios from various geographical locations where GET has conducted programs and relate the observational experiences to the more general and pertinent literature. I will concurrently apply the analysis in demographic terms according to pertinent classifications previously outlined.

Canada & Spain

Interest in education about climate change has been increasing over the years within western education systems. The causes are varied and include reasons such as expanded funding for environmental educational programs (Anderson, 2012; Government of Alberta, 2017; UNESCO, 2009; U.S. Department of State, 2014), the inclusion of climate change in the Ministry of Education curriculum (e.g. NRC, 2012), increased awareness of weather changes (Trenberth, Fasullo, & Shepherd, 2015) and “the deepening concern for the likelihood of global environmental, social, and economic changes due to climate change” (Monroe, Plate, Oxarart, Bowers, & Chaves, 2019).

Interest in programs in Canada and Spain is predominantly from the Euro/ Euro Canadian demographic; those who can be identified as Settler in a colonized nation-state or European immigrant in the case of Canada and nonindigenous native in a nation-state in the case of Spain. Students are a part of the dominant culture (though they may self-identify as belonging to alternatives to mainstream culture) and have relative economic wealth and power. Gender composition of students is equal though there is greater attrition amongst female students. LGBTQ inclusiveness is unknown due in part to an unsafe program and general culture for self-identification at K-9.

A problem experienced for this demographic is that parents and schools who contract programs seek specific content. This need for specific content includes conveying factual information about climate change, rather than building critical thinking skills, “and helping youth understand the sources of conflict about climate change or prioritize problem-solving skills as they help youth conduct local projects to mitigate and adapt to climate changes” (Monroe et al., 2019, p. 792). Few clients’ needs “acknowledge the psychosocial, evolutionary, and ethical aspects of climate change” (p. 792). There is a gap between the vision and mission of GET and some specific mainstream expectations which is augmented by difficulties in dealing with ethical and political controversies such as plummeting biodiversity. Many parents and schools can react negatively to political and economic teachings because they feel a need to protect their group identity and way of life. Therefore, GET needs to balance its curriculum content with the acknowledgement of how cultural ideology plays a role in perception and learning (Monroe et al., 2019).

Activism and education have a complicated relationship. Parents and contracted schools very often expect programs to be solely skills-based, positive, and impartial. In following this cultural edict for avoiding controversial politics and eco-social justice activism, GET, in terms of its education for sustainability goal, is at risk of falling into the trap of being “at best a distraction from the core curriculum and at worst a platform for the promulgation of radically subversive messages” (McClaren & Hammond, 2005, p. 267).

The GET organization must define on which areas of environmental education to focus and realize that trying to accommodate too many goals, student and family aspirations, and relying on positive thinking and unverified claims of program success can lead to a weaker program and dissatisfaction among some instructors and students. A related gap concerns relationships between stakeholders and how they are formalized through agreements and policies. Again, the haphazard growth of norms leads to misunderstandings and conflict when areas of responsibility are unclear. This has sometimes demonstrated itself as weak leadership where the problem is a lack of clarity around leadership and protocols.

Another challenge relates to how program outcomes can be measured, tested, and communicated. Defining and evaluating social and ecological outcomes, and to some extent, behavioral outcomes, are not immediately apparent. Affecting relational values is a goal that can cause several of the challenges mentioned previously. With relational and behavioural outcomes, it is difficult to know if a goal is achievable, at which developmental stages its teaching is appropriate and which methodology is most effective. For these goals, it is hard to measure success without testing regimes, and therefore difficult to market and communicate success due to parent and school’s strong social value norms and economic status linking.

These relational values, however, are core to the programs’ learning outcomes. In a review of environmental education (EE) peer-reviewed literature, Britto dos Santos & Gould (2018):

found that EE research, particularly empirical studies, address a diversity of phenomena that can be called relational values. Connectedness was by far the most common relational value explored, although its definition and distinction from other RV types is not always clear. (p.127)

These relational values are difficult to monitor yet being core goals the ability to communicate and present them to relevant stakeholders is paramount.

Families perceive programs as increasing their child's health and happiness, activation, environmental consciousness, and academic potential; goals in line with the promises of the nature education movement of Louv (2011). There is above-average interest from families of students on the autistic spectrum. Even though there are no specific qualified teachers to assist these students, their success rate according to the family's expectations are satisfactory and promotes recommendations.

Long term students in the Canadian alternative school program K-9 have achieved many of the relational goals of GET yet have been less successful in skill-based direct instruction goals. However due to attrition at the middle school grades as students return to mainstream education due to parents' concern for academic success and students' need for greater and more diverse peer interactions, this long-term group of successful students is small.

Spanish students are attracted to the English language immersion, outdoor learning freedom, and popular Montessori pedagogy of programs and less interested in ecocentric education elements. Programs for the most part are seen as an adjunct and stimulus to academic schooling that only certain demographics can afford to consider and leverage. Other economic and political barriers exist as well as social barriers relating to culture, class, and gender. This situation is common in wilderness and nature awareness programs across Europe and North America.

Indigenous Canadian students

The gap in the relationship between the Indigenous and nonindigenous exists in terms of definition and acknowledgement. The Anthropocene terminology places equal blame on all human cultures and fails to acknowledge both capitalism and colonialism and the nonindigenous as vectors of death and destruction.

The shift in ecocentric education toward values and practices learned from Indigenous scholars, practices, and pedagogy; in particular toward place and land-based education, as well as an acknowledgment of the multicultural nature of the world related to these pedagogies and "the economic basis of the economic crisis must be taken into account" (Bowers, 2008). Questions are raised by Bowers (2008) relating to pedagogues' reliance on an abstract Western epistemology:

The works of Freire and Dewey both exhibit this emphasis on the efficacy of abstract theory in leading to a better world [reproducing] Plato's assumption that rational thought,

which only an elite can effectively engage in, is a more reliable source of knowledge than narratives, embodied experiences and the achievements of other cultures. (p. 327)

The GET organization grapples with this challenge, in facing the general “indifference to the importance of the cultural commons as sources of resistance to the globalization of market forces as well as their prejudice toward other cultural ways of knowing” (Bowers, 2008, p. 327). In terms of curriculum and pedagogic methodology, the relationship between the adoption of Indigenous practices grafted onto western epistemological foundations creates an unstable and uneasy structure. Thus, the goal of a critical pedagogy of place can seem oxymoronic due to the differing epistemological bases of critical pedagogy (western) and the theory of pedagogy of place (Indigenous). The GET organization has struggled with this oxymoron as it attempts to practice a critical pedagogy of place, which has added to a confused Indigenous/nonindigenous relationship.

In terms of curriculum, a lack of clarity of relationship values exists between the Eurocentric approach to teaching and other cultural pedagogies. Even though program goals and vision are ecocentric as opposed to anthropocentric, a failure of alternative education systems is that they always exist in relationship to mainstream culture and most students (and instructors) live that anthropocentric world. Thus, attempting to change to an ecocentric worldview for nonindigenous people will not arrive at the deep ecocentric life of many Indigenous people.

A program professing an ecocentric and anticolonialism worldview needs to prove itself to Indigenous communities. Indigenous instructors offer a greater attraction to nonindigenous students. Indigenous students looking for ecocentric programs are more often looking for traditional cultural programs within their Indigenous communities and these needs can demand a Settler free space. Though Indigenous participation in programs has been statistically small, success can be described as good based on learning goal outcomes. Also fear and mistrust toward Indigenous students amongst Settler families based on preconceptions of socialization and behavioural issues needs to be more proactively countered.

Due to lower graduation rates in BC amongst Indigenous students as well as lower economic power, the focus of families is for students to increase academic success and economic success potential through a focus on curriculum learning.

Thailand

According to Kopnina & Meijers (2014), the idea of education for sustainable development (ESD) began through the report of the World Commission on Environment and Development (1987), 'Our Common Future'. The United Nations' Decade for Education for Sustainable Development or DESD (2005-2014) continued the ESD promotion and 'encompassed action themes, including overcoming poverty, achieving gender equality, health promotion, environmental protection, rural development, cultural diversity, peace and human security, and sustainable urbanization (UNESCO, 2005)'. Pinata & Meijers (2014) state that the mainstream discourse on sustainable development originates 'from the "big players" such as The World Bank, the IMF, and the governments of the neo-liberal consumerist societies' (Mosse, 2010), criticizing these organizations 'for promoting the oxymoronic goal of maintaining economic growth, re-distribution of wealth and keeping the health of the ecosystem intact (Rees, 1992; Mander and Goldsmith, 1996)', (Kopnina & Meijers, 2014, p. 192).

More recently the UN (2018) report places ESD at the centre of the 2030 Sustainable Development Agenda as an element of quality education. It forms part of Target 4.7 of Sustainable Development Goal 4, which by 2030, seeks to 'ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles...' as well as cutting across all the other Sustainable Development Goals (SDGs) (UN., 2018).

Ziai (2015) critiques the notion of development in general and sustainable development in particular as the division of the world into a 'progressive, superior part and a backward, inferior part (Ziai, 2015). The subsequent differentiation between a good or bad society is thus focused on particular measurements, excludes others, and furthers 'the system of differences of the development era, therefore, ties in with that of the colonial era – both are derived from the same norm' (Ziai, 2015). In working with Thai students, the GET organization has attempted to take this non-development approach and work with local schools, instructors, and systems whilst providing an international English language ESL ecocentric education program with Thai students, ex-pat students in Thailand and Canadian exchange students. Working within the Thai ESD paradigm requires an analysis of ESD in Thailand and the 'sufficiency economy philosophy'.

Sufficiency Economy Philosophy. Policies and Initiatives to address these UN goals in Thailand relate to the inclusion of ‘the sufficiency economy philosophy’ as an alternative development strategy. Figure 4 shows the elements and principles of the philosophy and its desired effects:

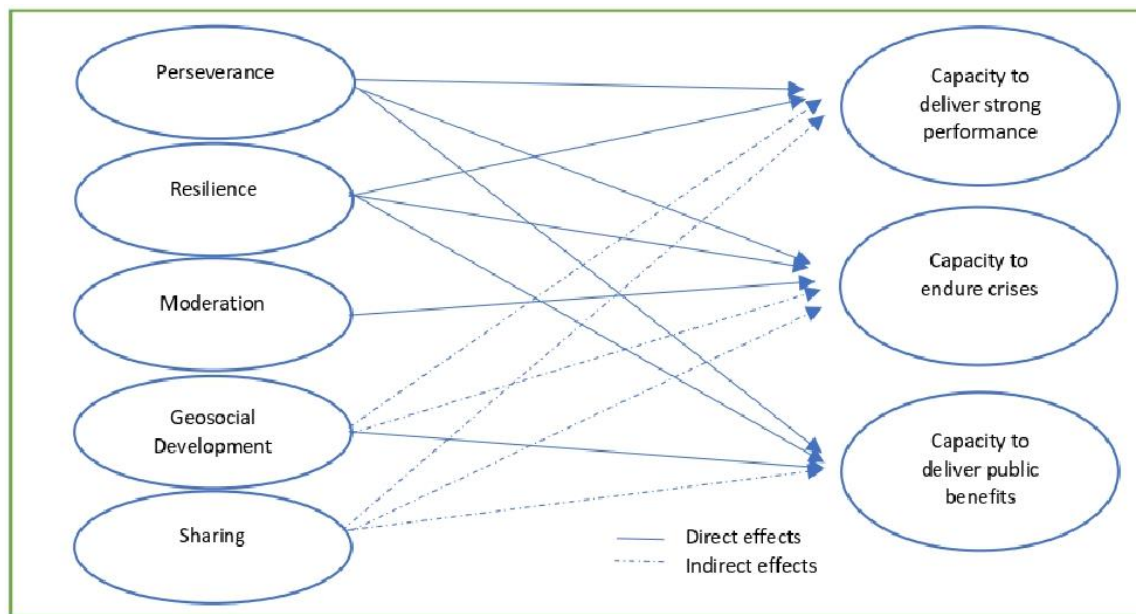


Figure 4 The Sufficiency Economy philosophy research framework. Adapted from Kantabutra (2014).

Aspects of the philosophy that are of particular relevance to ESD include the concepts of enoughness and self-reliance. Government education Policies include:

1. 2002 revision of the Education Act to include a focus on the King’s philosophy of sufficiency economy for the sustainable development and proper well-being for Thai people and balanced development.
2. An attempt to integrate the sufficiency economy thinking into the school curriculum at every level.
3. Education for sustainable development coverage, through the framework of sufficiency economy, is mandated across 40% of the surveyed sectors including national curriculum, primary education, secondary education, and non-formal education.

(Didham & Ofei-Manu, 2012, p. 48).

Due to the leadership model practices at the rural Thai school level and budget and staff restrictions, there is little incentive to initiate policy implementation at the school principal level,

except in the situation where specific schools have been selected or have requested selection as pilot program schools and would receive some additional training and budget resources. Seven pilot school programs and university demonstration schools fall into this category. GET in working with these pilot schools alongside others noticed considerable differences in focus on policy goals and success.

In attempting to base ESD on a home-grown philosophy and set of measurements and priorities outside of the development paradigm (The sufficiency economy philosophy), Thailand can be seen to be attempting to reclaim its native reference in order to guide it toward its future development. However, when the sufficiency economy philosophy is analyzed through historical and political discourse, it can be seen that the philosophy itself stems from alternative motives outside of the ESD UNESCO directives and recommendations and may constitute a diversion to the goal.

According to Schaffar (2018), Thai authoritarianism is intrinsically linked to the sufficiency economy and SDGs and the sufficiency economy philosophy serves as a central ideological pillar of an authoritarian project (Schaffar, 2018).

In Phase III of the sufficiency economy philosophy government implementation policies which started in 2010, “sufficiency economy was increasingly used as the ideology of an openly authoritarian political project, which culminated in the coup of 2014 and the establishment of a non-democratic regime resting on a corporatist social order” (Schaffar, 2018, p. 3). The philosophy can be seen as being co-opted by the ruling elites, from its grassroots beginnings as a development alternative, with its historical roots in the practices of Thai student communist party insurgents of the 1970s, as a tool or population control (Shaffar, 2018, p. 4). The fusion of austerity and local sufficiency becomes most clear in the directives and policies of ESD and the sufficiency economy philosophy related to the gap between policy and implementation and the relation between UNESCO directives and government department reporting.

Nuamcharoen & Dhirathiti (2018) see that because ESD is an alternative and not a compulsory policy in Thailand, the actual integration of ESD into the Basic Education core curriculum would need the co-operation of new players outside of the government Education System (Nuamcharoen & Dhirathiti, 2018). This is a role that the GET organization has sought to fulfil as an NGO educational organization working with sufficiency philosophy as an

alternative ecocentric education paradigm as it was originally intended by the Thai student communist party insurgents and promoted by the late King Bhumibol Adulyadej.

Demographic issues. Student demographics that the GET organization works with within Thailand range from international school groups with high economic power status students who are both Thai nationals, bi-national Thai/ex-pats and expat/exchange students; underprivileged and orphan students living in foreign charity funded institutions, and local institutionalized students who are HIV+ and/or autistic and orphaned who are Thai nationals, Thai Indigenous tribes, and S/E Asian immigrant worker orphan/abandoned students without legal papers. Students are fairly evenly divided male and female and visible LGBTQ students make up about 10% of the student body (gendered and sexual orientation diversity are not hidden in Thai culture).

Working with the sufficiency economy philosophy and local Thai instructors and schools/institutions additional realities from different demographic groups stem from an unspoken caste system in Thailand whereby economically powerful students do not feel the sufficiency economy applies to them as they are from the ruling/management class. Likewise, underprivileged youth aspire to a non-farming wage economy future due to the hardships associated with farming, particularly in the North East.

The HIV+ orphan and underprivileged students are all but excluded from the wage economy due to poverty and discrimination and this group would benefit the most from having the land and resources and live a life based on the sufficiency economy. Food, shelter, love, care, and medicines are a continuing need, and providing funding for local groups to provide what is needed for success is an important aspect of any program. This group with the most need is a place where GET is determined to continue programs, whilst working with International and exchange students in a critical ecocentric program at particular schools run by dedicated progressive Thai leadership teams and communities.

Ecuador

GET programs have been conducted in the Amazon and Andean regions of Ecuador working with Kichwa students in an NGO funded school program and as a wilderness and

Indigenous travel program for Canadian students and volunteers at a forest Kichwa village community and Andean Kichwa community. In this section, I will analyze how the exchange program and volunteer programs conduct programs inspired by the Indigenous-born Buen Vivir (BV) alternative economy paradigm in this region. According to Gudynas (2011):

Buen Vivir or Vivir Bien, are the Spanish words used in Latin America to describe alternatives to development focused on the good life in a broad sense... On the one hand, it includes critical reactions to classical Western development theory. On the other hand, it refers to alternatives to development emerging from indigenous traditions, and in this sense the concept explores possibilities beyond the modern Eurocentric tradition. The richness of the term is difficult to translate into English. It includes the classical ideas of quality of life, but with the specific idea that well-being is only possible within a community... [it] is understood in an expanded sense, to include Nature. (p. 441)

The Buen Vivir philosophy, like the Sufficiency Economy Philosophy in Thailand, presents an alternative epistemological, economic and social model from which to approach ecocentric education and partly accounts for GET organization's interest in working in these communities.

The wider political context within which programs exist impact the student and therefore program focus. Vanhulst & Beling (2019) describe the main differences between Latin American and Euro-North American debates on sustainability and environmental education as pertaining to power. In Latin America:

Capitalism is not framed merely as a system of production and consumption, but rather as a system of power and domination... [Therefore] unlike in the European debates on sustainability governance, in Latin America the talk is hardly about consumption or individual behaviour – although such approaches are on the rise on account of the rampant consumerism of the urban elites and the so-called “new middle classes.” Discourses about alternative ways of life, however, are conceived of at a rather collective level. BV, for example, deals with the creation and reproduction of integral conditions for socio-ecological reproduction. (p. 119)

The needs of Kichwa students in the Amazon region centre on effective educational opportunities. Schools are generally distant from village communities and transportation is difficult; a lack of qualified teachers and a half school day make attaining any education a challenge even though the government offers free education until grade 10. Some students cannot afford to take a 50c bus ride to and from school and are not able to eat until they arrive back home. The program that GET partnered with was a foreign NGO funded residential school where students had the opportunity to learn practical skills relating to farming and working in the

eco-tourism industry as guides, housekeepers, and cooks. GET offered an ESL Nature skills program within this residential school, with the assistance of North American volunteers. Students were distant from their homes and the emotional effects of being separated from tight-knit Indigenous communities had an emotional toll that affected their ability to learn and flourish. This impacted the volunteers and school staff also. Separation from communities and community resources can lead to the failure of programs. As Owen, 2019 explains:

If volunteer tourism is to fulfil this promise... NGO's should focus on instigating volunteer tourism projects that align with, rather than challenge locally embedded cultures and practices. (p. 231)

The second program in Ecuador where Canadian exchange students participated in a program at an Amazonian Kichwa village contended with issues of 'spatial othering' where the goal of commonality and shared understanding was the pedagogical goal. Owen (2019) contends that this separation can occur in such programs because:

rather than provide an experience that challenges existing frames of reference, the projects [operate] to satisfy a desired imagined geography between the Global North and South. The complex and heterogeneous indigenous community therefore takes on a standardised and homogenous form, with the purpose of providing the volunteer tourist with a reprieve from Western modernity. This reprieve – consisting of a community, materially poor but rich in spiritual and communal well-being – sculptured to satisfy the Western subjects search for deeper meaning and sense of self. (p. 225)

To counter this phenomenon, the necessity for more exchange student preparation became apparent, whereby GET instructors would provide critical pedagogical pre-trip instruction. Owen (2019) believes that this would:

encourage volunteers to reflect on the nature of global political economy and the social and environmental injustices it perpetuates (Diprose, 2012; Raymond and Hall; 2008; Simpson, 2004). This should focus on developing the skills of the volunteer tourist, to transform the way they reflect on their experience in the host community whilst also providing a means to engage with the deeper structural causes of global inequality beyond market-based solutions. (p. 226)

As Giroux (2004) describes, the role of critical pedagogy:

lies not only in changing how people think about themselves and their relationship to others and the world, but also in energizing students and others to engage in those struggles that further possibilities for living in a more just society. (p. 63)

Kichwa communities could likewise benefit from more preparation and leadership assistance in incorporating community members. This could consist of bringing in fewer exchange students who are better prepared and culturally sensitized. A higher level of sensitivity to a community more attuned to the natural world would necessitate exchange students being advanced in their ecocentric education and dedicated to spending more time in the natural world in their native countries. The double challenge of cultural and wilderness acculturation can be too much. Programs would also benefit from GET instructors taking on the responsibility to incorporate the critical challenging of exchange students' worldviews as a part of a pre-travel program. Owen concludes that:

There is a need to incorporate host community members within this process,...the greater the involvement of the community, the greater the learning outcomes for students... [I]mplementing such engagement may be problematic. This is because those community members who interact with volunteers have a financial incentive to reinforce volunteer tourists' preexisting imaginaries, rather than critically challenging their worldview. (p. 226)

At the Andean village program location near the Intag valley, local and Indigenous villagers were involved in a dispute to protect their land from copper mining companies supported by the Ecuadorian government even though the valley had been declared a protected environment. Similar to the BC pipeline expansion project, the dispute divided communities and led to acts of civil disobedience. The Canadian owned mining company illicitly hired armed vigilantes to break up the protest and had environmental protection leaders followed and filmed. The question of whether the organization of GET wishes to become involved in eco-populism arose from this situation. Middeldorp & Le Billon (2019) describe eco-populism as:

socioenvironmental movements scaling up their struggle and inscribing their demands into a "more universal rhetoric and strategy for change" (Griggs and Howarth 2008, p. 123). Eco-populism thus broadens social mobilization beyond directly affected communities and often seeks to unite the people against ruling elites and dominant corporations. (p. 326)

Middeldorp & Le Billon (2019) describe how involvement in populist forms of emancipatory politics can help but can also lead to further escalation "as they seek to broaden social mobilization beyond directly affected communities to challenge privileged elites and oppressive institutions" (p. 325). The seriousness of escalation for environmental defenders is real:

At least 1,570 people were killed globally between 2002 and 2017 while seeking to protect their land, community, and the environment through socioenvironmental movements (see Figure 1). Many of them are Indigenous people, thereby pointing at the colonial dimensions of many resource development projects. (p. 325)

Figure 5 shows a world of worldwide reported killings of land and environmental defenders 2002-2017. There were 3 killings in Ecuador and 25 in Thailand.

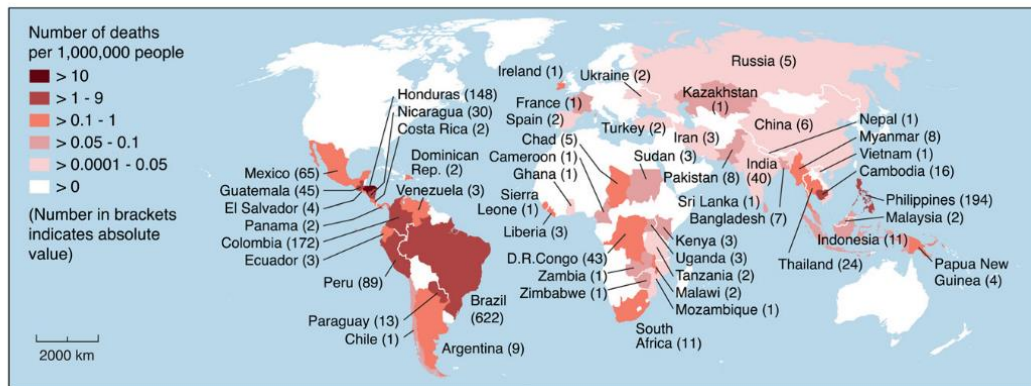


Figure 5 Reported killings of Land and environmental defenders worldwide, 2002-2017. Source: Global Witness (2017).

GET program involvement could follow the route of liberal environmental organizations which Middeldorp & Le Billon (2019) describe as responding to opposition:

through inclusion and buy-in strategies, often consisting of public participation processes channeling resistance toward...the “house of reasonable politics,” within which only minor differences amenable to compromises are allowed. Outside of the house, authoritarian spaces of criminalization and forceful policing often reign, thereby exposing the authoritarian character of actually illiberal regimes. (p. 327)

Universities

In dealing with a ‘wicked problem’ in K-9 education, GET programs can learn from tertiary education programs at universities around the world in environmental humanities departments and transdisciplinary research. At present GET directors have worked with several local universities in an informal consultative and collaborative manner as well as conducting programs for students from three BC universities and one Thai university. Developing these relationships is considered a key part of the change process. Through the transdisciplinary environmental humanities approach at universities, there exists a practiced model for K-9 ecocentric education to move forward in its goal of becoming a full alternative education system. “Solving complex real-world problems requires bringing together insights from multiple

disciplines” (Pedersen, 2016, p. 2). In the last decade, the new field of ‘environmental humanities’ seeks to integrate social studies and humanities expertise into the field of climate science. “The ecological humanities aim to help bridge traditional divides between the sciences and the humanities, and between Western, Eastern and Indigenous ways of knowing the natural world and the place of humans in it” (Rose & Robin, 2004, p. 2).

The environmental humanities as a field emerged in 2000 in Australia, naturally progressing from the integrated scientific and economic field of environmental science, to include perspectives from the social sciences and humanities. The focus of the field is on connections mirroring the connectivity of ecosystems in the natural world (Rose & Robin, 2004). Though the field is new and expanding, I concur with Hutchings (2014) who highlights three areas of interest:

(a) holistic critical theory, specifically the union of natural and cultural “critical heritage studies” (b) critical pedagogy, particularly the merging of natural and cultural heritage pedagogies, including efforts toward recognizing teaching as action and the classroom as “the field” and “decolonizing” the classroom via holistic and critical environmental education; and (c) heritage stewardship, including critical analysis of “resource management” and the development and implementation of alternative approaches. (p. 3)

The necessity of an integrative approach follows the conclusions of The European Union 2009 Lund Declaration which states ‘that European funding for research and innovation should be reoriented to address interdisciplinary challenges that affect not only contemporary societies but also the future of human civilization itself’ (Pedersen, 2016, p. 2). The necessity of an interdisciplinary approach in dealing with contemporary challenges is evident while it needs to acknowledge the concurrent challenge presented by ‘interdisciplinary modes of research cut(ing) across different ontological and epistemological regimes’ (Pedersen, 2016, p. 4).

The need for pluralism and/or a unifying universal Indigenous worldview seems necessary (Arabena, 2015b). This need is being met by transdisciplinary research within universities. In 1987 Nicolescu created the International centre for transdisciplinary research and studies in Paris. In 1995 the Reflection group on transdisciplinarity was founded in conjunction with UNESCO. Mitchell & Moore (2015) explain how:

[o]ne of its main aims was the implementation of these principles in education, and slowly but decisively the notion has gained international impact as universities from all over the world have opened themselves to experimenting with transdisciplinary curricula, research activities and conferences. (p. 22)

GET faculty have also been involved in university teacher education through offering practicum internships and offering workshops at local universities in ecocentric education practices. These short and informal programs have been well received though they have not been developed into a full or consistent course offering. The demand within teacher education for programs in ecocentric and environmental education practicum and methodology training is growing as school boards add environmental education content to curriculum and advocate for outdoor learning content.

For example, the BC curriculum outlines state that “learning can take place anywhere” and that “Although the learning standards are described within areas of learning, there is no requirement for teachers to organize classrooms, schools or instruction in this manner. In effect, the Ministry of Education defines the “what” to teach but not the “how to organize the time, space, or methods to teach it.” Further “Multi-grade programs should find a comfortable fit with the curriculum” (Prov of BC, 2017).

Taking these guidelines into account, the GET directors have explored possible designs for further development of its outdoor experiential ecocentric programs that can be co-taught/organized by Indigenous instructors and nonindigenous instructors for trainee teachers as well as both Indigenous, nonindigenous and multicultural international students.

Possible Solutions to Address the Problem of Practice

This organizational analysis presents and deals with a wicked problem with multiple stakeholder interests and perspectives. dealing with human-caused environmental degradation, climate change, and related pedagogic practices. Waddock (2019) describes a wicked problem as:

[having] no definitive beginning or end; and...[consisting] of complexly interactive, dynamic... interdependent parts that cannot readily be separated (Rittel and Weber 1973). There is no obvious solution to a wicked problem, and, most likely, stakeholders will be hard pressed to agree on what such a solution might be in any case (see, e.g., Churchman 1967; Rittel and Webber 1973). Further, once a proposed solution is initiated, there is no going back to the way things used to be because interdependencies mean that many things will already have shifted (Churchman 1967; Rittel and Webber 1973; Levin et al. 2012). Shaping the shift in the context of such wicked problems then, is just that, a shaping function, rather than a control function. (p. 934)

I will explore possible solutions to the POP, considering experience of areas for growth and change as part of a two-step solution to the POP, how can the GET leadership prioritize, design, and efficiently implement and integrate the structural and curriculum changes based on a post colonialist epistemology and transdisciplinary ecocentric pedagogy to serve the needs of a diverse international community of learners toward the creation of a K-9 inclusive ecocentric Montessori education program so that students can develop and master ecocentric skills whilst concurrently achieving mainstream academic success?

Possible solutions are identified to exist in four areas and concern both form, structure, and curriculum development. The first, as described by Fullan (2006, 2016), advocates a linked sustainable learning community using a lateral capacity building theory and systems thinking leadership. The second possible solution relates to an LRW program for university-level students from diverse and transdisciplinary backgrounds in the environmental humanities and teacher education departments to develop curriculum based on GET learning pedagogies. The laboratory school tradition as a place-based K-9 program container to offer further research for inclusive and International curriculum development inform the third considered solution. A Fourth possible solution would entail defining the basis for a clear vision, mission, policy, and curriculum document founded on clearly described pedagogic theory and practice which can act as both an outreach document and a set of rules that binds the organization within the congruent self-governing change framework.

Vision, Mission, Policy and Curriculum document

This document would represent an essential input in any change solution that would outline most content issues relating to the K-9 programs and could also explain issues relating to overall program governance and legal structure. The following broad curriculum content categories would be added to the current curriculum content derived from the Tracker School (2020a), and the nature education practices developed at the Wilderness Awareness School (Jon Young et al., 2010), and include curriculum content relating to eco-social justice and activism; all continuing to be practiced within a Montessori (2004) pedagogical methodology:

- knowledge (including awareness, perceptions, content knowledge, skills knowledge, sociopolitical knowledge, and issue-specific understandings)
- dispositions (such as interest, affect, attitude, and behavioral intentions)
- competencies (skills, including cognitive and social)
- behavior (actions)

- personal characteristics (self-esteem and character development, among others)
- multi-domain outcomes (those spanning more than one domain, such as academic achievement, which involves at least knowledge and competencies) (Ardoin, Bowers, Roth, & Holthuis, 2018 p.8).

This foundational document would be created co-operatively and be open to revision and augmentation by participating diverse stakeholder leaders. The document would also include descriptions of the philosophical foundations of programs dispelling misunderstanding in terms of Indigenous/nonindigenous relations, and provide a set of understandings that would allow for a distributed leadership model to operate. Communication of values to potential participants and their families would encourage stakeholder buy-in through clarity and honesty in the presentation of inspirational values and goals.

Fullan's lateral capacity building

Fullan's theories and practices with the New Pedagogies for Deep Learning (2019) project offers a template for lateral capacity building across educational organizations in pursuit of a common goal. Fullan (2006) discusses change from the middle (the middle being the school or program unit). He calls for change leaders to widen their network with other stakeholders (schools/communities, districts, and systems) through a framework of lateral capacity building. Horizontal linking provides a route that could lead to greater success for GET programs through the strength that comes with connecting teachers and innovative thinkers and practitioners at the middle/field level. Fullan (2006) further emphasizes the need for sustainability in systems thinking to bring about constant and much-needed change in any educational setting, through preparing leaders to be systems thinkers.

New Pedagogies for Deep Learning (NPDL, 2019) connects participant schools around the world following a program of Deep Learning. Schools join by paying a yearly fee and are encouraged to join as districts providing lateral support on all levels. Following this model at GET, university environmental humanities and teacher education departments can join and have individual students attend 6-week programs. International students can bring teachings back to their schools and university departments and cross-cultural visits between various cultural and economic demographics can be arranged to further learning protocols.

Funding for these programs could be augmented through business and individual sponsorship opportunities to cover fees for low-income students, maintaining a quota system to

allow for a diversity of input and learning. These ‘Transformative Pedagogies for an LRW type lateral capacity building program for students at participant universities could be the experimental driver of continuous change and learning at GET and challenge participants to explore pedagogical and sustainability problems which can feed into the K-9 experiential/skills ecocentric education programs.

Laboratories in Real World Contexts

In developing, improving, and teaching an ecocentric education program, the GET organization does not have all the answers, and innovation of knowledge, understanding, and pedagogic practice needs to be ongoing. Consequently, choosing a solution to contain the actual change process practiced by an LRW program and K-9 laboratory school program within a lateral capacity building outreach framework entails considering the variety of LRW type frameworks that exist. Change labs originating in Finland, real-world labs (RWLs) in Germany, and the Living Lab originating at MIT are but 3 LRWs that can be considered. Schäpke, Bergmann, Stelzer, & Lang (2018) observe that:

[r]esearch approaches establishing laboratories in real-world contexts (LRWs)...build on different research traditions and are applied in multiple research contexts. Yet, the collaboration of scientific and societal actors, their embeddedness in real-world contexts, and use of experimentation, seem to be common. (p. 8)

The Change lab process, though in some ways the most prescriptive LRW, could be used/adapted at GET. The purpose of choosing an LRW type process as the engine of the change process is that it is open-ended in terms of a conclusion and offers an ultimate vehicle for distributed cultural, gendered, economic, and power demographic leadership. The framework of experimental change through structured dialogue, practice, and feedback is designed to achieve real-world living solutions.

Structurally, the Change lab process is based on a Vygotskyian paradigm of double stimulation and a view of perception, neurology, and change. In practice, participants in the change decision process are stimulated with conflicting input to engage in formulating solutions following several protocols. Change labs are used to structure user participation in real-life settings (Schuurman & De Marez, 2013).

Figure 6 shows the cycle of the Change Lab model. The model provides evidence of how this template can be applied toward GET’s change process.

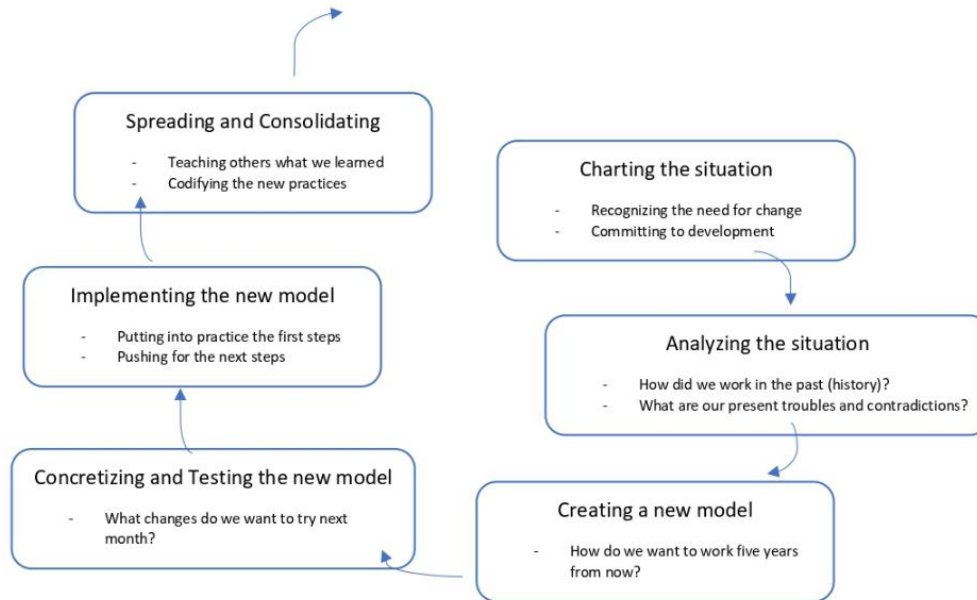


Figure 6 The phases of a Change Laboratory process. Adapted from Virkkunen & Newnham (2013, p. 17).

The administration/leadership would move the process along the cycle as show in Figure 4, and during the Change lab process would prepare the three levels of planning a Change laboratory intervention:

1. Involving the participants in the Change Lab process
 2. Collecting data for the Change Lab process
 3. Outlining the sequence of Change Lab sessions
- (Virkkunen & Newnham, 2013, p. vi)

The administration will also act as ‘researcher and interventionist’ (Virkkunen & Newnham, 2013) for the Change lab sessions. Each session will practice expansive learning in a social learning program involving elders, instructors, trainee instructors, and K-9 student groups. Expansive learning is learning “in which the learners are involved in constructing and implementing a radically new, wider and more complex object and concept for their activity” (Engeström & Sannino, 2010, p. 2). This is a cyclical process that ideally includes the collective learning actions of:

- (1) questioning, (2) analysis, (3) modelling a new solution, (4) examining and testing the new model, (5) implementing the new model, (6) reflecting on the process, and (7) consolidating and generalizing the new practice. (Engeström & Sannino, 2016, p. 402)

Funding, cost, and shared goal concerns associated with adopting a Change Lab program exist. These programs, however, are time-restricted and have specific goals. As such, there is no need to maintain long-term funding nor operate with open-ended goals.

Real-world laboratories (RWLs) are another LWR system becoming popular in Germany. Developed at Wuppertal University it is a young system that is less prescriptive than the Change Laboratory system, yet well suited to transdisciplinary student-led groups working with community sustainability projects. Eight key components are crucial for the installation and implementation of an RWL:

1. Normative framing: aiming to contribute to sustainable development
 2. Production of systems, target and transformation knowledge (mostly contextualized)
 3. Real-world problems as a starting point
 4. Boundaries: “Laboratory” demarcations, defined by content and space
 5. Transdisciplinary collaboration (co-leadership) with clear roles for practice and science
 6. Real-world intervention (often called “experimentation”)
 7. Cyclical learning processes through reflection and variation
 8. Empowerment of change agents and capacity building
- (Wanner et al., 2018, p, 101)

Figure 7 shows the cyclical concept of RWL’s. They are shown as being composed of science-practice interaction built on a transdisciplinary normative orientation toward sustainable development. In practical terms they are comprised of three phases: “co-creation, co-production and co-evaluation, including the development of ideas and real-world intervention” (Wanner et al., 2018, p, 101).

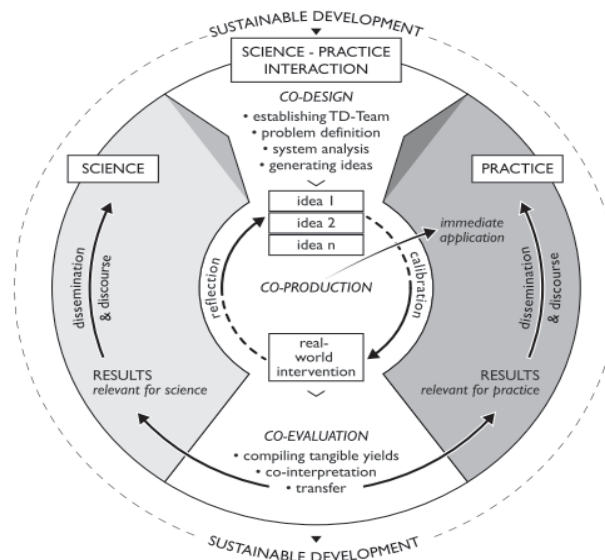


Figure 7 Cyclical concept for Wuppertal’s Real-World Labs. (Wanner et al., 2018, p, 102).

Dewey Laboratory Schools

The laboratory school envisaged and established by Dewey was both innovative and revolutionary. Changes were explored and experimented on through an educational project based on a theoretical rationale through research and evaluation. Using this model, Dewey promoted a revolutionary change from traditional to progressive education (Dewey, [1938]1997). Practicing experiential real-time development research, problem-solving happened in situ in an ever-changing environment (Schutz, 2001). Following and inspired by Dewey's ideas, the Hand in Hand association established a bilingual school in Israel to explore whether Dewey's school structure could work as a peace project for Jewish and Arab youth. Both Dewey's laboratory school and the Hand in Hand schools in Israel are prototypes of an experimental school laboratory system taking a "scientific 'experimental' approach to introduce educational changes that would respond to the community's needs. Underlying this approach [stands] a pedagogical method and conceptualization for conflict resolution and the opening of a space for empowering dialogue" (Arar & Massry-Herzalah, 2017, p. 57).

Many university associated laboratory schools operated as training centres for prospective teachers. "Dewey believed that research was the primary mission of laboratory schools, and he did not believe that they should serve as training vehicles for prospective teachers" (Cassidy, 2002, p. 5). Dewey did appreciate the educational plight of poor students, but the University of Chicago laboratory school had to charge tuition to survive. "For the most part, students attending the school came from very affluent families" (Cassidy, 2002, p. 5).

The problem of laboratory schools, in the 200-year-old European/North American tradition of schools as part of universities, experienced two main problems that led to their demise. "First the dual purpose of being training as well as experimental facilities and secondly the cost and financing load" (Cassidy, 2002, p. 6). The Democratic schools in Israel, including the Hand in Hand schools, must also charge students (though the state pays basic costs), and thus in both cases, the student demographic is necessarily affluent.

GET programs, in considering and being inspired by the goals, form, and structure of Dewey's Chicago School and the Hand in Hand Democratic Peace schools in Israel, would need to make changes to the model to be financially inclusive and sustainable. The two main identified problems could be avoided by changing the funding model and by offering shorter courses rather than operating as a full-time school. The K-9 GET program could also be linked to

universities not directly but through the Change Lab program which would constitute the experimental, academically informed aspect of the operation. Using the lateral integration approach, no one university would be financially responsible for the Change Lab, and costs could be spread, and transdisciplinary expertise and input could be sought.

In summary, possible solutions involve treating the POP as a wicked problem that requires a systemic and gradual change of an experimental nature. There is an immense amount of research and partnerships available around the world at all levels that can be utilized within various combinations of experiential laboratory type programs. In utilizing a congruence change model, this transformational laboratory process stage would affect all inputs and levels of the organization that would need to be built around a foundation of previous program success, strong pedagogical and epistemological guidelines and clear vision and mission statements.

Chosen Proposal and PDSA Model

Following the two steps of any change solution (identifying priorities and efficiencies and integrating, creating and implementing new structures toward facilitating and developing curriculum and creating learning environments for the new K-9 ecocentric Montessori program), it would be efficacious to base any integrated solution around the K-3 ecocentric Montessori programs which has been most successful in fulfilling the vision of GET and student needs internationally. The choice of a change implementation plan from the possible solutions is based on the organization analysis results stemming from the POP question of aligning the GET vision and mission, prioritizing and efficiently implementing the necessary identified structural and curriculum changes based on a post colonialist epistemology and transdisciplinary ecocentric pedagogy to serve the needs of a diverse community of learners. The chosen change process would need to be incremental in its application and cast a wide net as an immediate change would not be successful relying only on present stakeholders' support. The process would also need to solve the POP regarding making the organization more efficient, inclusive and integrated.

The chosen elements identified from the possible change solutions consist of building lateral capacity through the development of a series of combined and concurrent 6-week change laboratories built around the K-3 ecocentric Montessori program. This Change Lab would consist of a 'service-learning' RWL program for pre-service teachers, working teachers, and transdisciplinary & environmental humanities undergrad. and post-grad. students, with short one

to three-week grades 4-9 programs operating as a laboratory school experiential and experimental field research practicum. The RWLs would be student designed specific team projects with the purpose of creating and testing curriculum activities for the K-9 students. The RWL and lab school short courses acting as a practicum would be contained within the GET administered Change Lab program which would collect data from the various RWLs for analysis and toward the long-term goal of developing an inclusive ecocentric K-9 school program. I will refer to the joint RWL programs and Change Lab project as the LWR. The LWR programs would take place in Spain and Canada facilitated by GET staff and a rotating international diverse participating university student body. All participating university students would be paired with Indigenous, underprivileged, refugee, and marginalized students from participating communities in Ecuador, Thailand, Canada, and Spain. Qualified and experienced Canadian and European participating university students would have the opportunity for 3-week volunteer service-learning exchanges with Ecuadorian and Thai participating student communities. This would be the only continuing travel program for Canadian and European participants in this first stage change process.

The focus on university students in this change process is considered of primary importance due to both the significance of tertiary environmental education field study programs to ensure delivery of primary and secondary learning, and the lack of adequate and effective international experiential teacher training courses and programs that fulfil the requirements identified in this OIP. The assistance of the university environmental humanities departments is also considered essential to building curriculum as a first stage change process as GET seeks to redesign their ecocentric education programs to more fully realize their goal of being fully inclusive and international in access and approach. Conducting these LRW programs for three years would build the capacity and curriculum content for longer-term K-9 ecocentric programs to resume and be scalable at international locations.

These programs will take ecocentric education as a departure point for both social and ecological sustainability. Antunes and Gadotti (2005) refer to ecocentric education's purpose as educating planetary citizens to adopt life-long caring and appreciation for nature. Planetary citizenship involves an ongoing process that expands beyond the classroom to the entire community, encouraging learners to develop a conscience for planetary inclusiveness, where collaboration and sharing with other species becomes the norm" (Kopnina, 2020, p. 5).

Hallinger & Chatpinyakoo (2019) highlight three contributions that tertiary education makes related to finding sustainable solutions:

First, higher education institutions are responsible for preparing primary and secondary school teachers with the knowledge, skills, and attitudes needed to teach effectively for sustainability. Second, the curricula taught across different disciplines in universities represent vehicles for preparing higher education students to incorporate sustainable attitudes and practices into their lives. Finally, the role that universities play in knowledge creation has wide-ranging implications for global efforts to find ‘sustainability solutions’...[S]cholars have referred to higher education for sustainable development not only as a ‘subject’ in the education curriculum, but also as a form of ‘transformative learning’ aimed at social change. (p.2)

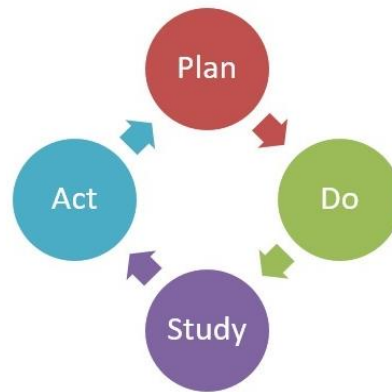
In following this chosen change solution capacity will be built for a more successful K-9 program in the future as the potential for teachers’ understanding of sustainability education will improve, thus building teaching capacity in the subject area. Likewise, curriculum development and culturally pertinent methodologies will be explored from multi demographic perspectives for an increased capacity to offer effective programs at the K-9 level. In attempting to realize the goal of consistency in aligning their vision and mission, the GET leadership will be able to prioritize and efficiently implement the necessary identified structural and curriculum changes based on a post colonialist epistemology and transdisciplinary ecocentric pedagogy to serve the needs of a diverse community of learners through bringing together program elements into a cohesive, inclusive laboratory based program as a first change step toward the creation of a more successful K-9 ecocentric education program.

This chosen solution would create a more streamlined, efficient and integrated program. Building from a strong foundation with the more successful K-3 program, a stronger grade 4-9 program would emerge from the series of labs. Incorporating university level transdisciplinary and sustainable and Indigenous community expertise and input into the transformational change process would also strengthen the output curriculum material through the diversity of contributions which would lead to a more scalable and demographically and geographically applicable program.

Figure 8 shows the overall 3-year PDSA model for the chosen change process:

- GET directors and core instructors will plan the process in consultation with committed stakeholders and partners.
- The purpose is to create a series of lab processes to design and create K-9 ecocentric curriculum and learning environments and prototype nested teams and inclusivity as an organizational and education structure
- Process will build on current K-3 ecocentric Montessori program and integrate international students, pre-service teachers’ program and environmental humanities LWR program
- Improvements will be assessed after each 6-week program
- Successful improvements will be integrated into the next 6-week change lab

Improvements and a new baseline in the structure of the program will be prepared for the second year series of change lab program. After 2 years it will be decided if results are adequate for the creation of K-9



The first 6-week program will include participants who are ready to commit and for following 6-week change labs numbers will increase and committed partnerships develop

There will be weeks to analyze data after each 6-week program and after each yearly cycle 2 months to fully analyze, evaluate and integrate improvements in preparation for the second-year cycle of six-week change labs

Figure 8 PDSA model of 3-year change process

Each individual 6-week change lab would constitute a self-contained change unit, each cumulatively contributing to the overall 3-year change process. The figure 9 PDCA model shows how each 6-week unit would contribute through an analysis of change aspects that demonstrated success and could be integrated into the final curriculum changes and aspects that need to be brought to the next 6-week change lab process to be reexamined and redesigned.

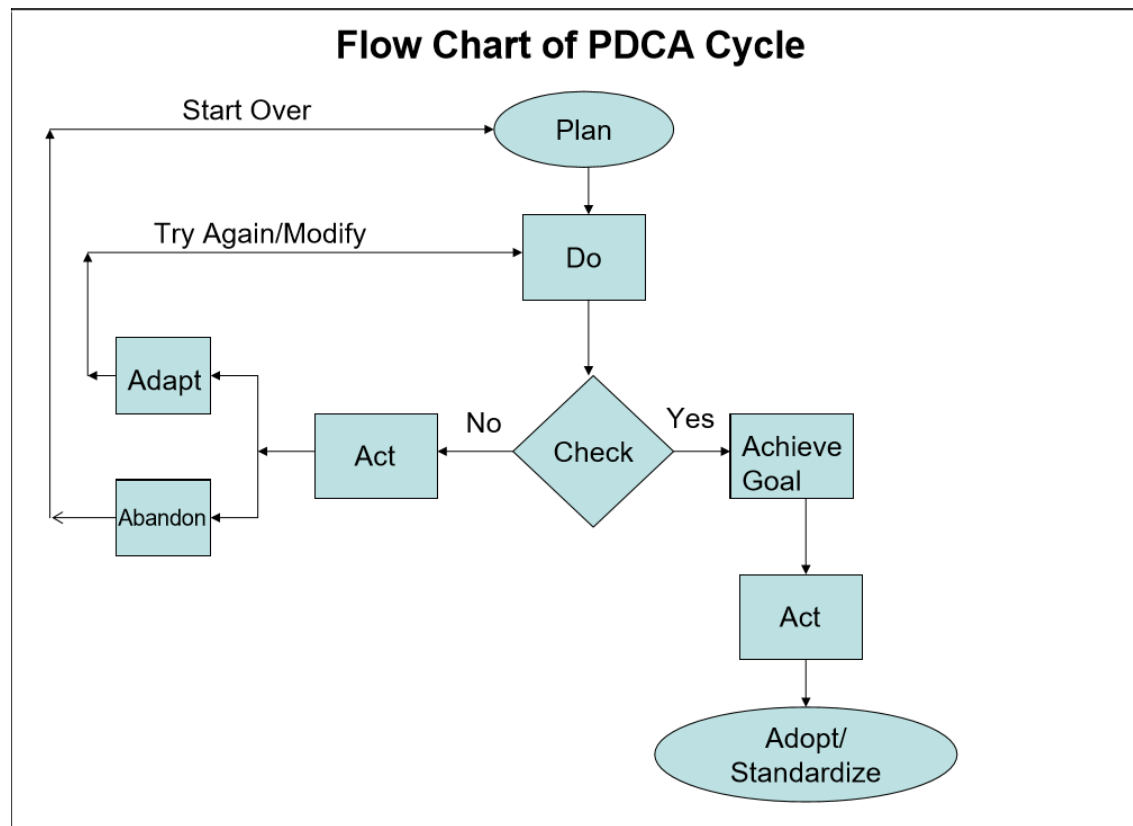


Figure 9 PDCA model for each 6-week change lab process. Adapted from Werryworkforce PDCA model (2020).

The Fig. 9 PDCA model shows how each iteration of 6-week Change Labs will move the change process forward through each year’s cycle through an evaluation (check) and analysis process.

Leadership Ethics and Organizational Change

I will consider ethical challenges as they apply to the four areas of change. First, through questioning the epistemological foundations of change leadership; secondly by exploring the ethics of how to attract, maintain, manage and educate a multicultural, Indigenous/nonindigenous, multi-economic demographic of students and teachers. Third, issues relating to the operating an LRW type teacher training program including issues of funding for inclusivity. The fourth set of ethical considerations concern holding the program, instructors, and students to a set of vision, mission statement, and curriculum and protocol rules and parameters.

Ethics of Demographic

Some GET programs plan to operate on a demographic quota system for both instructors and students. Management decisions in administering this system will encounter several ethical questions. First, what would be the philosophical premise of the quota system and what does it purport to achieve? Questions of race, culture, socio-economic status, and gender definitions will need to be defined based on the worldview and political stance of the organization. Power imbalances of Indigenous and nonindigenous, rich and poor, confident, and disenfranchised need to be explored as well as a non-anthropogenic approach. These decisions will need to be clearly communicated and explained and open to discussion. A process of arbitration will need to be set up to allow individuals to challenge decisions and be offered fair consideration as individuals as well as being based on self-identifying criteria.

According to Mansbridge, Kittilson & Jones, (2005) regarding gender quotas:

the case for quotas... rests on three separate arguments: 1) an argument that descriptive representation is substantively and symbolically important, even necessary, for the descriptively represented group and for the polity as a whole; 2) an argument that a group's lower than proportional representation in a representative assembly has been caused by some form of inappropriate discrimination against that group; and 3) an argument that quotas are the most effective way in practice to achieve descriptive representation. (p. 622)

Mansbridge et al, (2005) also present the case against quotas describing how there is a tendency of quotas to promote cultural beliefs in "essentialism":

the conviction that the individuals represented through quotas have some essential traits that help define them and that render them unable to be represented adequately by those without such traits. Essentialist beliefs reinforce stereotypes, trap the individuals in the group in the images traditionally held of the group, make it hard for those individuals to treat their identities flexibly and performatively, de-emphasize lines of division within groups to the advantage of dominant groups within the group, and harden lines of division between groups. The argument that men cannot represent women, for example, suggests that women cannot represent men. The argument that only women can represent women suggests that any woman can represent all women. (p. 623)

This ethical concern can be extended to applying quotas to cultural, Indigenous, economic status groups and needs to be acknowledged in terms of pros and cons.

There is also a separate but related ethical issue of the organization and administration of the bilingual aspect of programming. The ethics of choice regarding additional language teaching

and usage and the rules of operating the bilingual program encounter ethical questions relating to rules as to language use. Colonialist language rules and policies of local and Indigenous language eradication need to be considered, due to the bilingual program utilizing the two colonial dominant languages of Spanish and English at GET programs in BC, Canada, and Spain. The inclusion of local and Indigenous languages, when spoken by participants and staff need to be honored and accommodated and space for their instruction and curriculum space for language/culture colonialist policy and history will need to be central to the bilingual program. ‘Provincializing English and Spanish’ would “promote consciousness of the many forms of English and Spanish” (Hurie, 2016, p. 465).

Ethical considerations for LRWs

In creating and administering an LRW type teaching training program there exists another set of ethical considerations relating to power dynamics and parameters of operations and actions within the training lab and with interactions with attending K-9 students of faculty and trainees. The self-governing structures (holacracy) framework operates based on semi-autonomous leadership held together through protocols of advice asking and rules (Laloux, 2014, Robertson, 2015). How these rules are formulated and administered and what the repercussions are for delinquency will encounter ethical questions especially in terms of interns, trainees, and professional staff .

Students who are minors participating and interacting with adult students would also need to adhere to not only legal requirements but a second set of rules regarding departmental leaders’ authority and chains of responsibility, even if chains of command are eradicated.

Ethics of vision and mission

Beyond and above the first two ethical areas of considerations are the intrinsic ethical choices of the vision and mission statements and how they will be held by the organization and the resultant expectations of staff and participants. How will staff and participants be expected to share the political, social, and academic worldview of the organization and how will their actions within programs be directed by the vision and mission statement parameters?

Incorporating a sustainability definition, i.e. circular economy, and a political stance and philosophical worldview relating to the problem and the reason for human destructive behaviour and actions, is it intrinsic or educational? What can be changed and how and by whom and what cannot? What is the pedagogical approach toward political change versus behavioral personal

change? How will GET operate as an educational community providing space for open dialogue that respects cultural and demographic diversity grappling with larger philosophical questions and planning and practicing remedial conservation actions?

Chapter 2 Conclusion

The possible solutions to address the POP consist of developing a strong foundational document based on the strengths of the organization from which to build capacity through partnerships with educational and environmental organizations. Various LRW and laboratory school systems were explored that can be practiced individually or together to create a living community learning environment as a series of experimental short programs to begin the work of creating curriculum for a full-time K-9 ecocentric education program/school. This series of laboratory programs can be framed in a congruence/holacracy framework to approach the wicked problem from transdisciplinary, multicultural, and inclusive demographic perspectives. In the next chapter, an implementation plan will be developed out of the change possibilities working within these frameworks.

CHAPTER 3: Implementation, Evaluation, and Communication

In this chapter, I will develop a plan for implementing, monitoring, and communicating the organizational change process. I will first explore and develop the change implementation plan and continue the process for both the change monitoring and evaluation and communication plans. Finally, I will explore the next steps and future consideration possibilities following the planned 3-year cycle of the change process.

Change Implementation Plan

The chosen course for a change implementation plan involves streamlining and consolidating various aspects of GET programing into a cohesive and integrated program with elements that support and strengthen each other. A series of 6-week Change Lab sessions will be built around the ecocentric Montessori K-3 programs in Spain, and the stakeholder community in BC, Canada. This laboratory style learning community will be created with a diverse leadership practicing distributed and distributive leadership which will radiate throughout the program through a self-governing structures framework (holacracy) achieved through a congruence change model. The chosen elements of GET programs that will be core to the laboratory style learning community will be a diverse international teacher training practicum and environmental humanities RWL program that will research material, curriculum and learning environments for the grades 4-9 ecocentric programs which will begin as shorter part time courses with the goal of becoming full time courses after two years. Lateral capacity will be built through developing and adding to existing relationships with universities and Indigenous and sustainable living communities around the world that have been forged over the past twenty years. Local K-9 student/family communities will grow around a clearly communicated vision and practice of an inclusive international ecocentric Montessori education.

Strategy for Change

The 3-year change process follows the 2-step process whereby the first stage identifies priorities and efficiencies with new leadership practices and structure. Lateral capacity building through building partnerships with university environmental humanities and teacher education programs would be the focus of this first step as partnerships and supporting stakeholders are the driving force and foundation of the change process. Step two entails developing curriculum and creating learning environments for a more effective K-9 ecocentric Montessori learning community through the Change Lab 6-week programs.

Step one. Following the congruence model, step one can be seen as preparing the input for the step two transformational stage, but also in itself step one involves a change process following the congruence change model with change occurring at the organizational level including creating priorities, leadership model change, and stakeholder relationship change. The first step change necessitates the writing of a well communicated vision, mission and policy plan, as well as a curriculum priority program information package describing and outlining the program philosophy, methodology, structure, aims, goals, and curriculum designed and agreed by GET directors followed by the creation of an action plan which would be executed in step one to prepare for the stage two Change Lab program. The action plan will consist of a Change Lab facilitation plan, a financial plan and a communication plan. Executing the action plan during step one is a process of building lateral capacity through deepening relationships with existing stakeholders as directed by the communication plan. The prototype financial and Change Lab plans will develop through consultation with stakeholders following a distributed and facilitative leadership approach. Figure 10 shows the input and output of step one of the change process within the congruence change model.

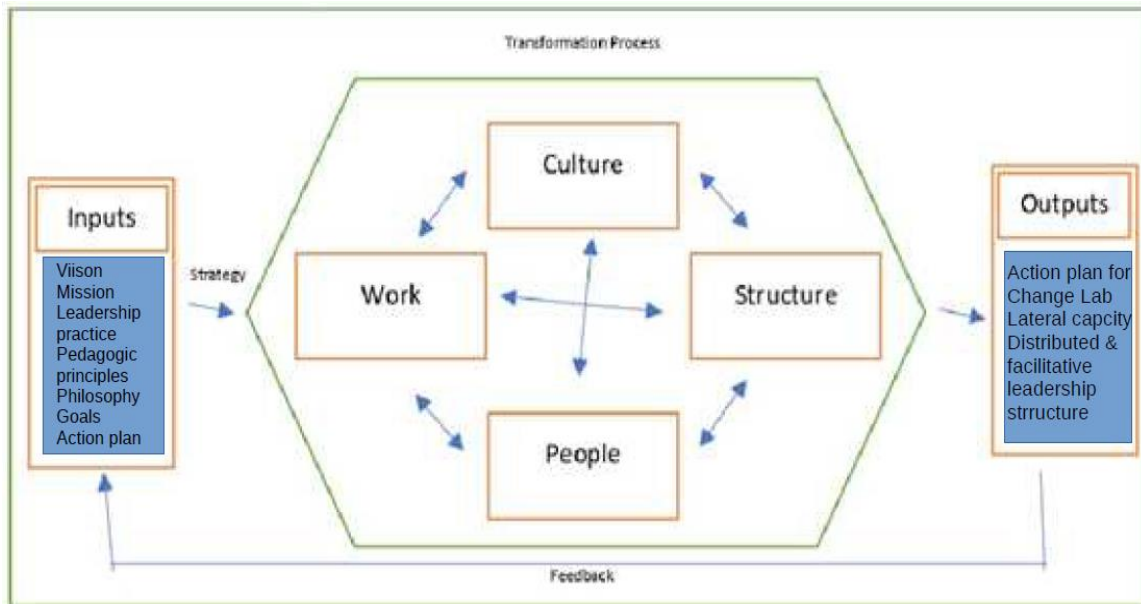


Figure 10 Step one congruence change model

In preparing a clear vision and mission statement, directors will decide which elements of the organization are to be retained, transformed, and added. Figure 11 outlines points for discussion in this process, showing the current state at GET and highlighting the elements which will be retained in the change process and the elements added to move toward the goal of a new organizational state:



Figure 11 discussion preparation model for vision and mission communication

After reaching agreement with the board of directors on the final form of the OIP, the program outline, vision, mission, and goals, directors will create an action plan consisting of a Change Lab facilitation plan, a financial plan, and a communications plan to be executed in step one in preparation for the second step, 2-year Change Lab. Cumulatively these plans will provide the input to produce material for developing and recruiting lateral support, gain feedback and revisions from potential participating institutions. The two universities with whom GET directors have previously conducted programs for transdisciplinary studies and teacher training programs will be presented with the outline to co-create a credit program outline for their students and form a university research base for the change process. This process would allow for a conversation with interested university, Indigenous and sustainable community, and local community/K-3 stakeholders to contribute ideas to the final form of the Change Lab program based on their particular needs, limitations, and interests.

Change Lab plan. This plan will act as a framework for the second step Change Lab programs from which a final Change Lab document will be created after consultation and input from stakeholders. The plan will be created by GET directors based on the following general outline:

- The second change process step will entail completing two years of LWR 6-week Change Lab programs, data assessment and curriculum formulation and planning. During this phase of the change process, participating stakeholders will attend one of the three weeklong Change Labs at either the BC or Spain locations for 1-3 weeks. Some stakeholders such as interns may attend a series of Change Labs over a season.
- The Change Labs in Spain will build around the existing core community K-3 program. In BC they will build around the existing Indigenous/nonindigenous nature education community that has been developed and built over the last twenty years.
- The Art of Mentoring weeklong workshops that Jon Young has developed over the past thirty years will act as a blueprint for the Change Lab programs as it creates a learning village, instruction modules, and a nested team approach. GET management and staff have experience in conducting these workshops around the world and the organizational blueprint will be adapted and expanded to contain

participating stakeholders and the new program elements. The Art of Mentoring is held as a multi-day gathering in various locations within the U.S. and Canada, and increasingly so, in Europe and Australia.

Financial plan. The financial plan will explore funding and revenue avenues in consultation with partner charity foundations. As well as participation fees, sponsorship and fund-raising programs will be developed to enable low income participation to fulfil the goal of inclusivity and diversity. Tapping into our partner organizations' successful strategies will build capacity and provide multiple possibilities within this plan. The plan will develop over the first step process through sharing the plan as directed by the communications plan.

Communication plan. Individual stakeholders will be assessed through impact statements and the design for each individual change initiative communication will be based on these assessments. The impact statements will contain information on stakeholders' relevance, specific nature, measure and consequences that they may require, tools and support that they may need, and an answer to their potential question "what's in it for me?".

Following these impact statements, activities within the initial communication plan will ensure that the following communication goals are met:

- Segmenting and assessing stakeholders
- Developing an overall communication plan for each phase
- Designing and developing detailed components (objectives, messenger, sender, medium, frequency and feedback mechanisms)
- Assessing the effectiveness of each initiative regularly

A well-crafted communication plan will provide stakeholders with the information they need to make informed choices about whether and how to participate in the program and to build trust with candid information about the need for the program.

For each stakeholder the communication plan will contain information on communication events; message, sender, developer, timeframe/frequency, vehicle, feedback mechanism and desired outcome.

Stakeholders for whom this initial communication plan will be conducted:

- Pre-service teacher practicum
- Professional development programs for working teachers
- Environmental humanities and post grad education students RWL service-learning program
- Indigenous community education leadership development program
- Sustainable living community education leadership development program
- Montessori school ecocentric education camp program 4-9
- Local state school district ecocentric education camp program 4-9
- Independent school ecocentric education camp program 4-9
- Home school and distance learning student ecocentric education camp program
- Ecocentric skills intern and instructors' program
- Local community support and program participation
- Individual and corporate sponsors

Step two. The step two Change Lab programs will be conducted over years 2-3 in Spain and Canada. The number of 6-week Change Lab programs conducted in each year will depend on meeting stakeholder participation goals in step one and will be a maximum of three programs per year at each location for a total of six. The final elements and form of the program will be finalized during the step one process. Figure 12 shows how step two of the change process operates with inputs derived from the outputs of step one of the change process, the Change Labs operating as the transformation process and the solution goal from the POP constituting the output of the process. The actual stage of the output will determine the step three future considerations.

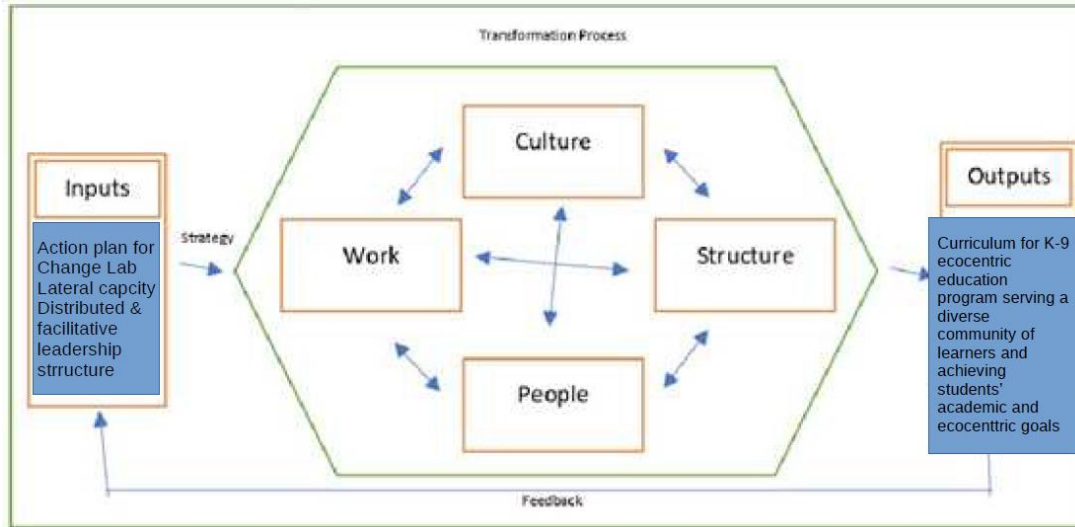


Figure 12 Step two congruence change model

I will discuss the principles of the program and the importance of founding the Change Lab process on a teacher training and environmental humanities RWL program.

Walshe & Tait (2019) refer to several studies regarding trainee teacher's sustainability learning lacking a certain criticality which Evans et al. (2012) argue is a "result of the technocratic worldview which presents environmental problems as being free from values or tensions" (p. 2). It is consequently suggested that "[Initial Teacher Education (ITE)] should plan to develop in trainee teachers a more nuanced understanding of ESE" (Walshe & Tait, 2019, p. 2). Teachers are reported to have difficulties instructing complex SD concepts and get little support (Walshe, 2008) and can resort to simplifying sustainability issues for ease of student comprehension (Sund, 2016). "Thus, further teacher training in SD appears to be absolutely necessary" (Sinakou et al., 2019, p. 6).

Kaufmann et al. (2019) note how service-learning or field programs conducted outside of the constraints of university structures can be beneficial as "[f]rom a multilevel perspective of societal change, educational institutions such as schools and universities are seen as stabilizers of the system in place; they are largely resistant to reflection because they are strongly locked-in by power structures and path dependencies (Kaufmann et al., 2019, p. 940). Tilbury et al. (2017) concur, in viewing the ESD sector "as a significant force for change in societies," and note that "universities currently lack capacity to integrate ESD effectively into mainstream teaching practices and the training they provide for academic staff" (p. 798). At the same time, issues

relating to outdoor programs fulfilling universities' academic demands are discussed by Lugg (2007), who identifies stakeholder struggles related to the “demands of HE [higher education] institutions for academic rigor and curricula innovation” (p. 101). The above research and studies combined with the specific strategy and goals of GET inform the decision to follow the teacher training and environmental humanities laboratory program development as the organizational change with the highest priority. After the 2-step process is completed future steps will be considered based on analysis of evaluation data.

Short medium and long-term goals and change schedule. Appendix A provides a chronological change plan outline with timeline execution goals for the short-term (step one), medium-term (step two) and long-term (next steps and future considerations).

Step one and two goal achievement. As well as fulfilling the primary general-purpose illuminated above regarding fulfilling a core educative need, these programs would also fulfil stated change goals and solve the POP in the following areas:

1. Lateral capacity building through connecting with interested participating university departments around the globe in co-developing the program, offering participation to students in the change lab program, and the resulting data. This will focus on two of Fullan's (2006) eight recommendations to build lateral capacity through networks, and to lead with a dual commitment to long-term and short-term goals.
2. Gain resources through participation fees and student fundraising to include equal numbers of low-income and Indigenous participants who are outside of the formal higher education structure and capitalist social, economic, and political privilege structures.
3. Create transdisciplinary cohorts consisting of a wide and inclusive demographic to engage with ecocentric education program development based on identified questions and challenges. Abson et al. (2017) highlight the need for a transdisciplinary approach, as “[a]ddressing unsustainability requires societies to address interacting biophysical, social, economic, legal and ethical dimensions” (p. 30), and this approach fulfils the “urgent need to examine more deeply the root causes of unsustainability, and identify solution-oriented approaches to transformational change” (p. 30).

The goal of critical-emancipatory education is to support the learner taking part in public and political debates and in understanding different opinions—participation and recognition of options being core elements of democratic practice. This means that, in educational settings, marginalized approaches to economy, like the degrowth perspective, should also be brought into the sustainability discussion. (Kaufmann et al., 2019, p. 935)

4. Systems Thinking approach.

Systems thinking has not been used as an educational method of developing an understanding of sustainability in teacher education programs...Therefore, elementary forms of systems thinking should be an educational method already in primary education". (Palmberg et al., 2017 p. 1)

Through a transdisciplinary and international multi-demographic cohort, systems thinking will become an intrinsic element of the program.

5. Creation of an Indigenous/nonindigenous equal partnership program. According to Kopnina (2020):

Today, more policymakers and scientists realize the importance of combining both Indigenous and science-based knowledge. In this context, “universal” education may yet become a vibrant patchwork of highly diverse and complex systems of local knowledge rather than a straitjacket of economy-centered anthropocentric indoctrination. (p. 8)

In following these recommendations and making sure that faculty and participants are equally and independently represented by Indigenous and nonindigenous members, programs would also strive to follow Battiste’s (2010) guidelines which consider how:

[t]he European, settler majority has either disregarded IK [Indigenous knowledge] and its teachings as invalid epistemologies or sought to appropriate IK in order to receive monetary or professional rewards. (p. 32)

Taking these facts into account, programs that hold adequate space for IK and respect for Indigenous Elders full inclusion will help “to re-establish relationships founded on mutual respect and trust... and create a better learning system for the schools of the future” (Battiste, 2010, p. 32).

6. Address regional demographic-specific ecocentric education issues. For example, in Latin America “EE ideology... stresses the interconnectedness between ecological problems and social ones – including poverty, inequality, illiteracy, unemployment and

malnutrition (Briggs et al., p. 1632). In these regions and others not only do teacher training programs:

often fail to equip educators with the necessary capacity, knowledge and skills to teach EE [but] many teachers lack a clear, basic conceptualization of what constitutes EE and therefore face a significant barrier to visualizing and teaching this subject. (Briggs et al., p. 1645)

7. Practice an ecocentric education with a leverage points focus. Abson et al., (2017) have researched three realms of leverage where ecocentric education becomes most effective:

reconnecting people to nature, restructuring institutions and rethinking how knowledge is created and used in pursuit of sustainability. The notion of leverage points has the potential to act as a boundary object for genuinely transformational sustainability science. (p. 30)

8. Service-learning and the Flipped Classroom. Programs developed would operate in conjunction with university classroom teaching as a service-learning program and as part of a flipped classroom. Barth et al., (2014) reiterate service-learning benefits:

[S]ervice learning offers potential value in two important ways. First, it enables students to gain new knowledge and competencies in an experiential learning process as active service providers and, second, if the projects and services are university-based its outcomes facilitate organizational changes towards sustainability. (p. 74)

9. Prepare teachers to serve a variety of demographics:

[W]e have seen that some groups of adolescents report lower environmental attitude indices than others. Our results suggest that males in general, those who have lower socio-economic status, and those who live in larger cities report less positive pro-environmental attitudes. Consequently, policy makers should consider these groups as important targets when designing policy programs. (Duarte et al., 2017, p. 38)

10. Operating using an LRW methodology focusing on teaching competencies plus contextualizing perspectives to maintain an experimental participant-run learning community. Over each 6-week program, college-level participants will create learning environments where local K-9 students can attend 1-3-week camp programs at the end of each 6-week session to provide a teacher training practicum opportunity.
11. Create the learning environment based on evolutionary pedagogic principles of self-directed learning coupled with top-down instruction.

These vision and strategies form the basis for the capacity-building potential of the proposed changes and serve as a reasoning for the chosen initial change strategy. In the following section, I will explore issues related to the change plan.

Change Transition Management Plan

Following Nadler and Tushman's congruence model, the four components that will change include 1) the work; 2) the people; 3) the formal organization (structure and systems); 4) the informal organization (power, influence, values, and norms). In adding a new tertiary education program near the top end of the structure, all components will change and thus all will need attention. For example, staff roles and hierarchies will flatten to a collaborative leadership process, and all stakeholders will interface with the group Change Lab process rather than in a standard teacher-student relationship. The strategy for change goals and priorities sections above describe the change in both the work and the formal organization that will be undertaken. It will be necessary to acknowledge and plan for stakeholders' reactions to change to mitigate resistance and gain support and perhaps lose some stakeholders who are not interested in the change; this would include management personnel and client university management, professors, and students. The key is to leverage the senior team to manage the change as facilitators so that the distributed and facilitative leadership model develops (Nadler & Tushman, 1990).

Similarly, achieving Laloux (2014) and Robertson's (2015) self-governing structures framework goal (holacracy), will entail taking advice from all stakeholders, personnel management, and existing and potential university clients. The congruence model working toward a holacracy model goal will inform the tertiary education programs as participants take on roles and responsibility in the service-learning experiential program.

Managing stakeholder reactions to change and Personnel Organization. Stakeholders will have concerns regarding cost, commitment, curriculum, legal and safety issues, philosophical and political alignment, student credit alignment, practical organizational issues, and contracts. The first year of the change process will be committed to communicating with stakeholders regarding the change process and stakeholders will be invited into the design process through feedback, presentation session, conferences and one on one meetings. Through

the distributed and facilitative leadership practices, interest will be transformed into commitment through inclusion and mitigation of concerns and needs.

Six key year-round positions would need to be clarified, three each in Spain and Canada. Four of these positions are already filled. A Spanish and Canadian land manager would need to be hired. Based on the number of participants involved at each stage of the Change Lab programs, these personnel decisions will need reassessment with the board of directors. Similarly, a discussion will need to be conducted with personnel to define roles and expectations. The six initially identified positions are media and administration manager, curriculum and course director, Indigenous Elder coordinator, facilitator/head instructor, and two land/camp managers. This will be a developing decision-making process.

Support and Resource Management. Three areas of financial management will need to be planned by the management team: university and school annual participation fees to cover management, office administration and full-time personnel costs, course participants fees to cover program running costs including staff, facility rental, food and accommodation insurance, and travel, and fundraising to cover the Indigenous and Elder participation program.

Implementation issues. Issues related to producing program packages for schools and universities would consist of identifying and communicating with key university professors and departments to gain support and building on this support. Other issues include producing the literature, power points, video, social media, website, and other promotional support materials, and preparing legal documentation for contracts, related costs, and startup cost funding to cover these implementation issues.

University students' need for credit. Many aspects of study abroad and international service-learning are not rigorously assessed, such as “program design, ethics, and the contexts of international service-learning; student recruitment, motivation, and readiness in these programs (Rubin & Matthews, 2013, p. 71).

In a 2002 survey of colleges concerning their treatment of service-learning and field study programs, 95% offered credit for these programs. “However, even if a college awards credit for internships, it doesn’t always follow that departmental credit is available. “Students interested in other types of programming often have to petition to have their plans approved...Those colleges that award credit also require a similar additional academic component...The usual permitted amount is 3 to 6-semester credits” (Steinberg, 2002, p. 214). GET service-learning programs will need to plan around these requirements to gain support and fulfil university credit and participation regulations; additionally, participants will be required to complete a term paper or other scholarly exercise. Also, an evaluation rubric will be needed to assist students in gaining credit for programs.

Limitations and Challenges

Limitations and challenges can be placed under practical and theoretical headings. Under the practical heading, financial and legal-regulatory issues predominate. These relate to working with different stakeholders and finding common ground from policy through to budgeting requirements. This is more of a challenge than a limitation though if not researched and planned well. It could be limiting if alignment with the goals or aims of participating institutions is not sought and there is no policy on how to deal with divergence and discrepancies. Theoretical limitations could emerge as the inclusivity requirement in the plan could lead to a quota system that may exclude certain participants if there is stronger interest from single demographics. This can be mitigated by the creation of priorities and organizing institutions' recruitment of student participants.

Change Process Monitoring and Evaluation

Evaluation is defined as a systematic assessment of the merit of an activity (Russ-Eft and Preskill, 2009). Neumann, Robson & Sloan (2018) define evaluation in terms of “an activity being systematic, planned and purposeful, involving the collection of data on questions and issues relating to the organization and its change programme” (p. 120). The evaluation process can develop understanding, create knowledge, and facilitate decision-making which would help build capacity in the organization and its programs and processes (Russ- Eft & Preskill, 2009). “Such evaluation can represent an ongoing intervention with recurring time-based assessment, in which case the term ‘monitoring’ is applied” (Neumann, Robson & Sloan, p. 120). Following these definition guidelines, I will describe in this section the evaluation system and protocols for

the teacher training/ LRW program combined with the laboratory school short K-9 programs for each of the six yearly, 6-week combined program iterations throughout the 1-year change cycle.

To ascertain relevant measures and processes of evaluation for the changes being proposed, it is necessary to consider all aspects of both the teacher training and Change Lab programs. Students' success in the experimental laboratory school short courses that constitute the teacher trainee practicum and LRW program is important and will be evaluated by the LRW program itself. The overall evaluation, though made up of many parts, can be analyzed and reported based on the goal for the change process, which is capacity development for the success of future ecocentric education programs.

In terms of qualitative and quantitative data relating to capacity development goals, it is important to note that the success of the teacher training and LRW programs are based not just on the short-term learning outcomes of the participants but on the efficacy of the teaching methods on subsequent students' long-term learning goals. This will constitute a measurement based on the desired future societal outcomes and is therefore not able to be directly evaluated during the first year-cycle of the process (i.e. for this OIP). However, through using back casting, envisioning, and games in the LRW program, the development of long-term possible and probable goals will eventually be provided through the LRW program as one of its core directives, and the success of meeting this LRW goal will be considered in the evaluation process.

As the LRW participants develop these long-term goals, they will in turn inform the teacher training program and be informed themselves by feedback from the student school programs and nature observation protocols in a continuous iterative feedback loop. In other words, the LRW will work to provide the capacity building measurement criteria, like a ship of discovery without a known destination but with a knowledge that some sort of land lies ahead and having a variety of tools to track a course and gauge a direction. There is no definitive map, just a set of principles to guide the course. The primary principle is that of inclusivity, and the ship will only chart a true course if all voices are heard and perspectives acknowledged.

For this reason, all evaluation will be rooted in inclusivity. A primary goal to be measured, assessed, and evaluated in the program will be the ability to create learning environments and stories that are as inclusive as possible; to create a multi-perspective crucible for exploring goals and visions for a 'good Anthropocene'. "The hope for the future, of course, is

that new alternative pathways for development in the Anthropocene will be created. Much interest in social experimentation and innovation in the last decade has identified possibilities for a ‘good Anthropocene’” (Carpenter et al., 2018).

Whilst the student and program achievement of real-world environmental goals cannot initially be directly measured, what can, is the qualitative measurement of the success of an inclusive learning environment that inspires participants to work toward a good Anthropocene. What would be developed in this way through a full cycle of programs that constitute this OIP is a Theory of Action (TOA) and a Systemic Theory of Change (SToC). A TOA can be described as an organization’s ‘theory’, or story of how it will make a change in the world. A theory is an explanation of why certain things happen.

This TOA is a capacity development tool toward improved future K-9 long-term programs answering the POP. The SToC would grow out of the exploration of the relationship between original change predictions and what unfolded. The SToC would help develop future change processes.

To this end the LRW program mandate is to explore and create early adopter sustainable living scenarios as learning environments for envisioning change; seeds of positive living and aesthetic inspiration. The goal and purpose of the learning environment are to act as a story and aspirational endeavor, inspiring youth through both positive experiences of degrowth scenarios and land regeneration (in the case of students from economically developed communities) and stories and experiences relating to the protection of core values, traditional practices, and sustainable land practices (in the case of students from Indigenous communities under pressure of development). Following this mandate, what would eventually be evaluated for the LRW would be both the program results in the context of the educational mandate and their success as applied and supporting the teacher training program and the laboratory school short courses all leading to the capacity building goals of future K-9 longer programs.

For evaluation, this 2-year cycle can thus be seen not just as an educational program but as a sustainable development action within a system. To evaluate short-term and provisional outcomes, what would be demanded during the 2-year cycle of programs is an inclusive systemic evaluation of process and fulfillment of program directives which would be informed by stakeholders and their communities’ feedback both within and outside the human family (i.e. non-human life) as described in the broad and diverse boundary description of the following

‘Inclusive Systemic Evaluation for Gender Equality, Environments, and Marginalized voices’ (ISE4GEM) system.

The ISE4GEM is an evaluation system initiated by the UN Women Independent Evaluation Service and designed by Stephens, Reddy, & Lewis (2018) that can be applied to the change process programs of this OIP to fulfil the role described above. In developing the evaluation system for this OIP following the ISE4GEM model, I will also integrate some ‘evaluative thinking for successful educational innovation’ protocols, particularly related to evaluative thinking and data collection analysis, presented by Earl & Timperley (2015) in their Education Working Paper No.122 prepared for and published by the OECD. This working paper (2015) addresses evaluation processes specific to innovative education programs such as that proposed in this OIP. Finally, I will include in my evaluation plan suggestions and protocols from Virkkunen & Newnham (2013) who offer evaluation frameworks for the collaborative development of education through a Change Lab program.

As inclusivity is a key requirement of the OIP proposed programs, the ISE4GEM evaluation method is appropriate for evaluation. The ISE4GEM method was designed to evaluate Sustainable Development Goals (SDGs) based on a systems thinking approach. Applying the evaluation system to this OIPs program improvement goal of creating regenerative laboratory learning environments that impart a sustainable living story (rather than to its design for SDGs) seems an appropriate fit as the measuring tools similarly focus on multi-perspective inclusivity, transdisciplinary wicked problem application, and systems thinking focus. The ISE4GEM approach as described by Stephens et al. (2018):

draws upon the knowledge created by methodologists from the systems thinking and complexity sciences and builds on best practice for systemic evaluation using critical systems thinking theory and tools to analyze interrelationships, understand multiple perspectives and conduct continuous boundary analysis. (p. 6)

House (2009) describes what he calls ‘deliberative democratic evaluation’ and argues that:

a central function of evaluation incorporated into a democratic process is to give voice to stakeholders and support dialogue and deliberation. For such a process to be perceived as legitimate and credible, it must be fair, inclusive, and open. (p. 1)

As a democratic deliberative evaluation method, ISE4GEM affords:

a parallel and reinforcing use of evaluation [focusing] on helping people learn to think and reason evaluatively and on how rendering such help can contribute to strengthening

democracy over the long term, a vision articulated by John Dewey, Paulo Freire, and Hannah Arendt, and brought into evaluation most often through the lens of social justice. (Patton, 2018, p. 15)

Democratic deliberative evaluation (House, 2014; House & Howe, 2000) necessitates critical consciousness and enhances critical thinking capacity, all important components, and goals of the OIP programs.

The GET change programs are innovative which present issues in terms of evaluation.

Earl & Timperley (2015) argue that:

evaluation has a much more powerful role within innovation when it is positioned as an integral part of the innovation process, contributing to the development and evolution of the innovation, with milestones of success to be tracked along the way emerging and being established and negotiated as part of the process. (p. 7)

Though Earl & Timperley (2015) point out the challenges and perceived incongruity of evaluation and innovation they stress that:

[w]hen innovation and evaluation come together, they can provide a powerful iterative process for addressing new ideas and engaging in inquiry and learning, as complementary and intertwined processes...They do not work as separate processes but are connected and reciprocal, with close working relationships among the key players (innovators, funders, participants, facilitators and evaluators) to understand and influence the innovation as it unfolds. (p. 16)

Utilizing evaluative thinking is proposed by Earl & Timperley (2015) as a method to achieve the evaluative goals of an innovative education program that will be adopted for evaluation in this OIP. Bennett & Jessani (2011) express the essence of evaluative thinking as “a means of thinking, of viewing the world, an ongoing process of questioning, reflecting, learning and modifying...evaluative thinking is learning for change” (p. 24).

As well as being innovative, the proposed GET change programs practice systems thinking. Systems thinking is particularly relevant to the GET management structure regarding evaluation as the role of evaluator is combined with that of innovator-practitioner. “[S]ystems thinking reminds us that even from the outside of a system, evaluators cannot be entirely separate or objective. In defining what constitutes the system, and conducting analysis from their individual vantage point, evaluators engage with the system itself” (Stephens et al., 2018, p. 8). Thus, my role as an evaluator/practitioner/instructor is ethically consistent with the evaluation process being acknowledged as intrinsic to a system thinking approach.

The ISE4GEM evaluation system is further applicable to the evaluation of this OIP due to its being designed as an end of program final evaluation. Though this OIP’s evaluation will follow four consecutive programs as part of the change process, each program will constitute an end process that will inform the next consecutive program; the four programs’ final evaluations will provide data for a combined evaluation at the end of the year that will follow the same process. The planned GET change programs’ overall goal is capacity building based on the developing goals being created by the LWR program.

To summarize, I will adopt the overall ISE4GEM model of evaluation for each of the six 6-week concurrent program OIP iterations to be used in a final overall OIP assessment at the end of the two years after this change cycle. Data collection will be informed through the creation of an evaluative thinking culture and Change Lab data collection protocols. Capacity development for social change, which forms the product of the ISE4GEMs evaluation process, is defined by the long-term goals of GET and this OIP’s POP, to create more inclusive and efficacious ecocentric education programs for K-9 students.

Figure 13 lays out the four stages of the ISE4GEMs evaluation learning and action cycles. I will describe how each phase will be conducted in the evaluation process.

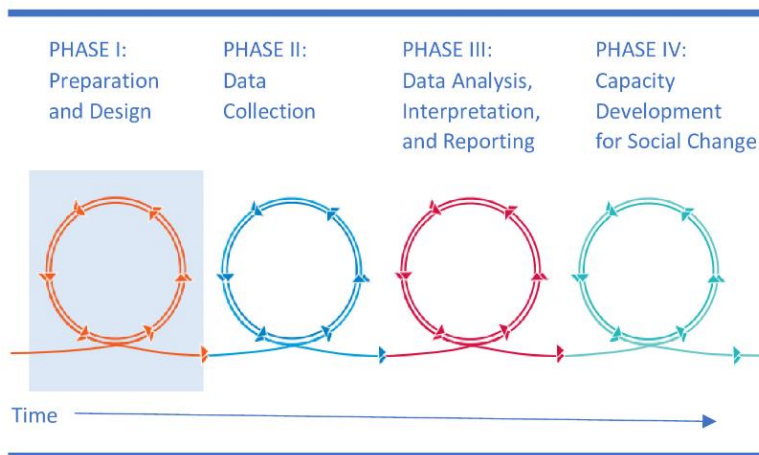


Figure 13 The ISE4GEM’s learning and action phases. Adapted from ‘Evaluation Guidance Series Inclusive Systemic Evaluation for Gender Equality, Environments and Marginalized Voices. ISE4GEMs: A new approach for the SDG era’, by Stephens, A., Lewis, E. D., & Reddy, S. M., 2018, p. 58.

Phase I - Preparation and Design.

This stage consists primarily of defining evaluation boundaries and is important as boundaries are at the heart of systems thinking. “Having a clear picture of what is being

evaluated is essential” (Stephens et al., 2018, p. 19). The boundary story for this evaluation is based on the organizational analysis and stakeholder analysis which are both included within the boundary story, as shown in Fig 14:

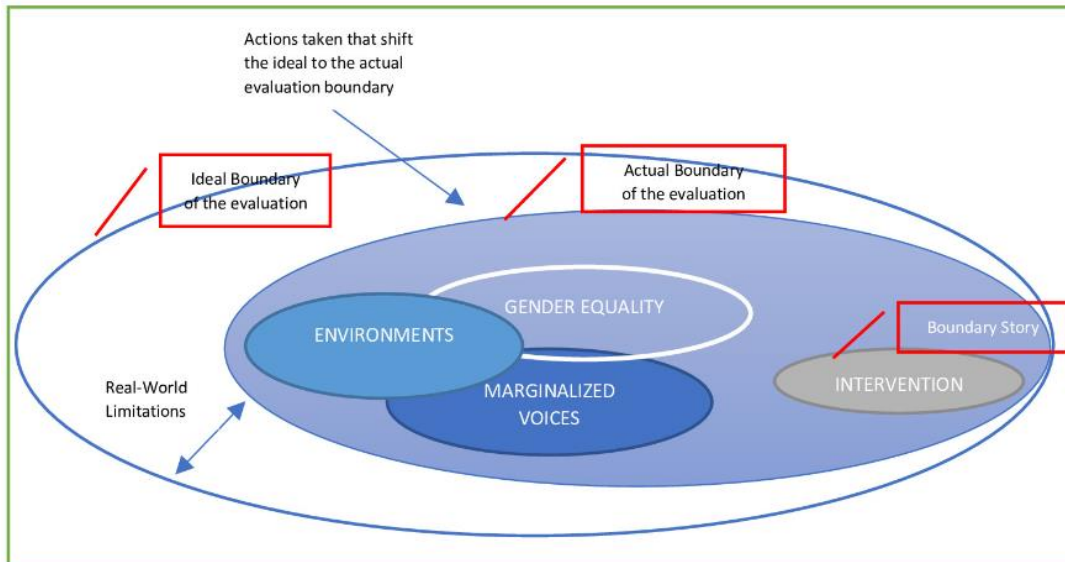


Figure 14 The actual boundary of evaluation. Adapted from ‘Evaluation Guidance Series Inclusive Systemic Evaluation for Gender Equality, Environments and Marginalized Voices. ISE4GEMS: A new approach for the SDG era’ by Stephens, A., Lewis, E. D., & Reddy, S. M., 2018, p. 68.

Ethical issues discussed in chapter 2 would be considered in defining the evaluation boundary, as would impacts and contributions of the impacted non-human natural world and wider political communities and impacted direct stakeholders, as outlined in the chapter 1 discussion on stakeholders. Having defined the boundaries of the function and purpose of the evaluation will have been undertaken as an intrinsic function of the change process itself for the benefit of teacher trainees, sponsoring and participating university departments, and for the continued development and improvement of the programs. The evaluation team would be headed by myself as the evaluator/practitioner of the LRW team. The evaluation process would form a core element of the LRW program.

Phase II - Data collection

“The idea of educational evaluation is deceptively simple. It involves the systematic collection and analysis of data needed to make decisions and identify effects of educational initiatives” (Earl & Timperley, 2015, p. 10). However, as Gamble (2008) says:

Initiatives that are innovative are often in a state of continuous development and adaptation, and they frequently unfold in a changing and unpredictable environment. The

destination is often a notion rather than a crisp image, and the path forward may be unclear. (p. 13)

All stakeholders should be involved in the evaluative thinking process, including communities, parents, and students themselves as key participants and decision-makers. When all the groups who have a commitment to and interest in the innovation bring their diverse perspectives and intentions to the evaluation, the evaluation is likely to be more authentic and all stakeholders are more likely to understand, share, and support decisions (Cousins & Earl, 1992). The methods used for collecting information from stakeholders will include “document analysis; narrative, stories, and vignettes; surveys, focus groups, and interviews, just-in-time responses using digital technologies and social media” (Earl & Timperley, 2015, p. 24). As a part of their data collecting protocol for evaluation, the LWR team will also make and use videos of teacher training practicum student programs of both teaching moments and practices as well as personal evaluation interviews with participants as feedback.

Phase III - Data Analysis, interpretation, and reporting

The evaluation report will be built considering the facts, values, and a Boundary Analysis as represented as three sides of an analysis triangle shown in Figure 15:

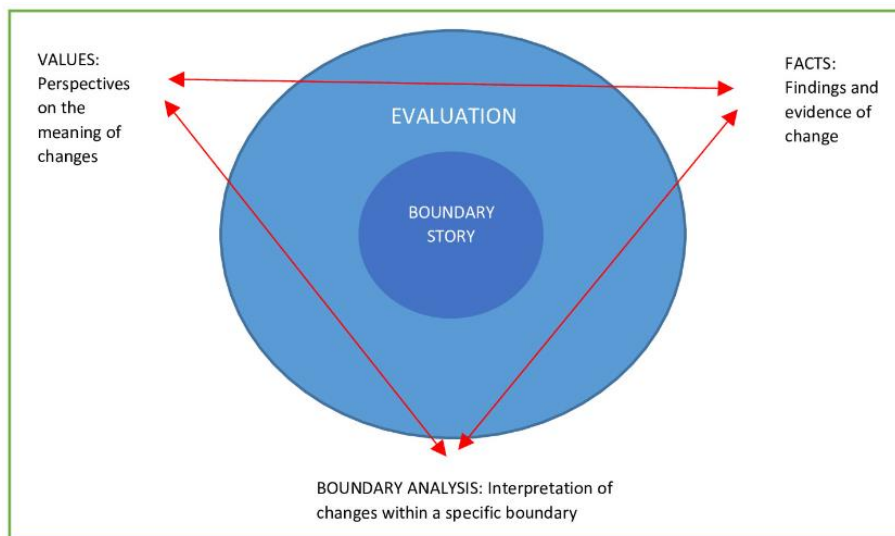


Figure 15 Systemic Triangulation. Adapted from Reynolds (2015). Adapted from ‘Evaluation Guidance Series Inclusive Systemic Evaluation for Gender Equality, Environments and Marginalized Voices. ISE4GEMs: A new approach for the SDG era’, by Stephens, A., Lewis, E. D., & Reddy, S. M., 2018, p. 110.

Facts and data collected will be analyzed through gender equality, environmental, and marginalized voices themes. The insights and observations need to be converted into knowledge that is both insightful, useful, and relevant “in relation to the questions that prompted its collection and engaging in careful inquiry and interpretation...within the context of multiple stakeholders and multiple interests” (Earl & Timperley, 2015, p. 27). The goal of the analysis is to arrive at knowledge, “the kind of knowledge that can be transferred and further developed across contexts (Earl & Timperley, 2015, p. 32). The contexts in the case of each 6-week program will be preparation for the following 6-week program leading ultimately at the end of the year cycle to building capacity for future K-9 programs. General working theories need to be developed during this process through critical evaluation of the data, question-driven enquiry, and the continued search for new information in a process that Hakkarainen et al. (2004) describes as a ‘dynamic spiral critical for knowledge creation and sharing’.

Using a forest eco-cycle practice model, aspects of the programs being evaluated can be analyzed as belonging to one of four quadrants: Birth, Maturation, Creative Destruction, and Renewal, as shown in the following Figure 16:

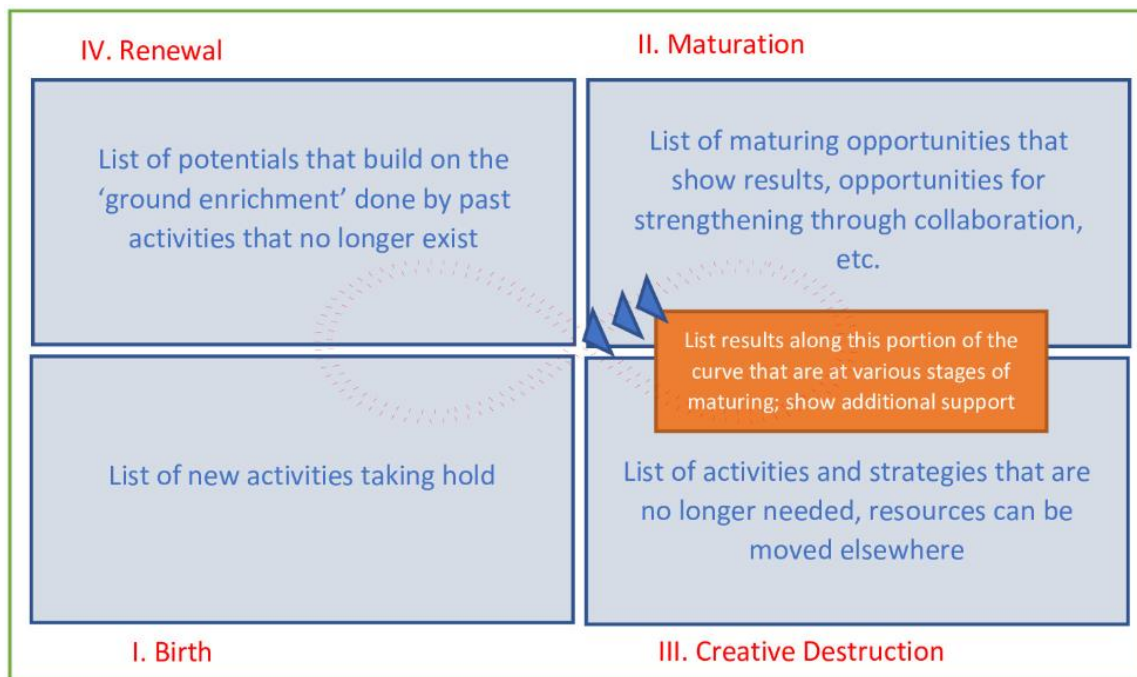


Figure 16 Communicating evaluation results by conceptualizing systems change using the forest ecocycle analogy. Adapted from Zimmerman, Lindberg, & Plsek (2001). Adapted From ‘Evaluation Guidance Series Inclusive Systemic Evaluation for Gender Equality, Environments

and Marginalized Voices. ISE4GEMs: A new approach for the SDG era', by Stephens, A., Lewis, E. D., & Reddy, S. M., 2018, p. 140.

In this model, the biological ecocycle metaphor is shown as being an infinity loop. "The infinity loop depicts a living systems scenario with no beginning or end. The movement from the lower-left Quadrant I to the upper right Quadrant II follows an 'S' curve" (Stephens et al., 2018, p. 140). It is on this 'S curve that a focus of strategic planning to improve the efficiency of programs and interventions leading to mature and improved outcomes would be best applied.

Using this analogy, [it] is useful to see that Quadrant III is part of a healthy living system. When we are building, maintaining, and sustaining something we value, it is hard to acknowledge that some structures and forms may have lost their vitality or become inappropriate for changing conditions and people. Yet, creative destruction is evident around us with the destruction of both natural and social system structures (Stephens et al., 2018, p. 140).

Using this analysis model and focusing on the 'S' curve area will aid in knowing where to focus on change for each iteration of the 6-week programs and finally at the end of the one-year cycle of change.

Phase IV - Capacity Development

UNDP defines capacity development as "the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their development objectives over time" (UNDP Partnership with Global Fund, 2017).

Capacity development goals for this OIP involve working in partnership to build mutual capacity with stakeholders. The evaluation process will conclude by asking the questions concerning how the change process and program data and analysis can be used toward developing capacity in both the GET organization and the general ecocentric education field, and how the theories of knowledge and change can be used to scale up mutual program success at more locations through further lateral capacity building with communities and educational organizations.

Monitoring and Evaluation Summary

The success of the OIP is not guaranteed and the innovative nature of the proposed programs leave room for missteps and failure. As Preskill & Beer (2012) describe it:

Those who are interested and willing to experiment with social innovations must be willing to take risks and accept missteps or failure. They must be willing to live with uncertainty and acknowledge that their plans, regardless of how well laid out, will likely shift as the circumstances around them change. With uncertainty and unpredictability comes an even greater need for strategic learning as an innovation is conceptualized, designed, and implemented. (p. 3)

The evaluation analysis and conclusions could, therefore, lead to a wide variety of options for next steps and future considerations following this one-year change cycle including the option to continue the change process programs for another year in further iterations if the organization has not arrived at any definitive capacity development conclusions.

Plan to Communicate the Need for Change and the Change Process

“When one is building a ship, one does not begin with gathering timber and cutting planks, but rather by arousing in people the yearning for the great wide sea.”
— Antoine de Saint-Exupéry

Scientists are projecting various scenarios for the future of the planet; social scientists are observing social upheavals and projecting worse in the future. Indigenous prophecies and scientific projections are becoming uncannily similar. These stories of collapse and destruction are no basis for inspiring young people and society to transform. In terms of goals for the programs in this OIP, the teacher training and Change Lab programs at GET are tasked with creating environments and future stories that inspire based on knowledge, research, and evidence rather than wishful thinking or denial.

As an international program aiming to reach a broad and diverse demographic, the plan to communicate with stakeholders will need to be similarly broad in scope and diverse in intention and application. The stakeholders (management, full-time staff, temporary staff, tertiary education partners, secondary education partners, primary and kindergarten education partners, Indigenous community partners, local community partners, corporate sponsors, community and individual sponsors, the media) can be grouped into four main stakeholder categories for communication planning: management and staff, education institution partners, community partners, sponsors, and the media.

In consideration of communication strategies, the stakeholders can alternatively be divided into categories relating to demographics (Indigenous/nonindigenous, gender groupings, economic status and/or political power levels, and differing cultural-based value priority groups).

The communication plan and strategy need to address the concerns and needs of each of these possible groupings, and at the same time present a cohesive and integrated message that is not intended or perceived to be misleading, manipulative, or incomplete by any stakeholders. Effective communication with all stakeholders is a prerequisite for a successful change process. “[C]hange has... long been depicted and documented as difficult and prone to failure. Failure rates have been reported to be as high as 50–75 percent” (Lewis, 2019, p. 407).

The plan to communicate the need for change and the change process related to the teacher training and Change Lab programs can be divided into three development categories:

- Communicating information to prospective and existing stakeholders to increase participation and develop stakeholder roles and commitment
- Communication systems and protocols to be used in the design and operation of the Teacher Training and Change Lab programs
- Communication issues related to cultural and language diversity and inclusion

Each category impacts the overall communication strategy which necessitates communicating the goals and intention of the proposed change programs considering content and form, language used, positionality, and critical pedagogy perspectives. The communication strategy will be an instigator-led interactive dialogue between stakeholders.

Communication strategy

The change model at GET “encompasses [a] range of activities [that] take place between ‘adoption’ of a tool or technique ... and its stable incorporation into on-going organizational practice” (Tornatzky & Johnson, 1982, p. 193). Therefore, I will utilize a communication plan which introduces, explains, describes, or encourages the adoption of the proposed changes and will subsequently address the countering negative perceptions and concerns, reaching out to those with reservations. Communication will need to be an ongoing process whereby I as an “implementer will assess and adjust change or the ways employees and others engage with it over the course of an implementation effort” (Lewis, 2019, p. 409).

Bourgeois and Brodwin (1984) identify and contrast the commander model versus the crecive model. The commander model presents a more centralized approach, whilst the crecive model (which can be applied to the GET change project due to its bottom-up and change from the middle applicability) “draws on managers’ natural inclinations to want to develop new opportunities as they see them in the course of their day-to-day management” (p. 242).

Lewis' (2019) model “[embraces] stakeholder theory as a frame for accounting for dynamics of communication within organizational change processes” (Lewis, 2019, p. 410). Figure 17.1 depicts the typical hub-and-spokes stakeholder perspective that shows the relationships between an organization and each of the stakeholder groups; Figure 17.2 highlights the reality of communication between stakeholders in the proposed model (Lewis, 2019).

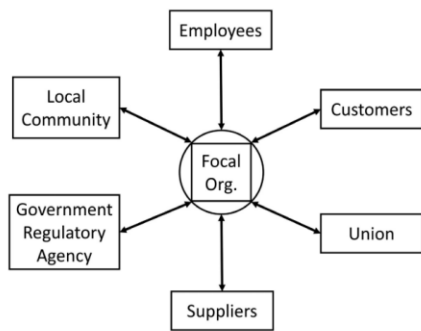


Fig 17.1 Hub and spokes model of Stakeholder relationships

Adapted From ‘Origins and Traditions of Organizational Communication’ by Lewis, (2019, p. 411).

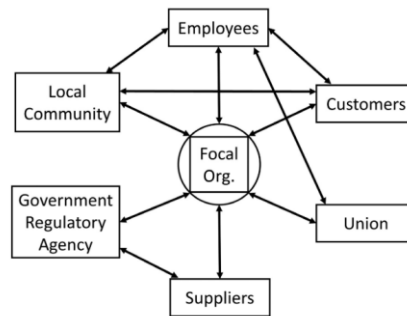


Fig 17.2 Complex stakeholder relationships

According to Lewis (2011), stakeholders play multiple roles in organizations and throughout change processes. This would be the case at GET where the various programs and staff roles interact with each other in ongoing and various configurations and all stakeholders participate in strategic communication during the change process. Lewis (2019) states:

The heart of this model concerns the communicative strategic dimensions and modes of interaction that drive the fulfillment, denial, and negotiation of stakes during change. The model depicts a fluid and complex process that occurs in the context of the organization’s total environment. (p. 411)

This process will manifest from first communications as program changes will not be presented to stakeholders as *fait accompli* but as a series of possibilities for which feedback is sought as an ongoing dialogue to arrive at a working, committed, and sustainable set of relationships.

As Whittle, Suhomlinova, and Mueller (2010) argue, “[stakeholders’] interests are not a fixed, essential entity that drives social action. Rather interests are negotiated and transformed in

interaction” (p. 33). This argument confirms that we should focus “on how interests are constructed in discourse rather than simply expressed in discourse” (Lewis, 2011, p. 248).

Participation, role definition, and commitment

Beatty (2015) presents seven key questions for how the process can be outlined and framed:

1. What roles and responsibilities will people have in the communications plan?
 2. What guidelines should you put in place, and what objective is each communication intended to achieve?
 3. Which stakeholders have an interest in this change and how much communication is necessary for each stakeholder group?
 4. How will you create effective messages tailored to the needs and interests of each stakeholder group and what are the contents of effective change messages?
 5. What are the best media to use for each communication and each stakeholder?
 6. Who should communicate with each stakeholder group, and how can you ensure they communicate consistently and effectively?
 7. How will the effectiveness of the communications be assessed and improved?
- (p. 4)

In answering these questions, the communication plan instigator can plan and manage communication strategies considering specific needs and potential contributions of each of the stakeholder groups.

Design and operation of programs

The first stage of communication involves informing stakeholders of the new proposed programs to gain interest, buy-in and involvement, and commitment to the process. Participant stakeholders need to be informed of their roles and responsibilities in the process and programs. It is important to discuss how communications systems will work within the programs as not all students have English as a first language and language can either mitigate or exacerbate power dynamics within a mixed economic demographic. The language medium of communication is English, which has limitations with multilingual stakeholders. Similarly, communication between stakeholders with differing identities and relationships to power, privilege, culture, and responsibility further impacts its efficacy. Fassett & Warren (2006) describe Freire’s (1992) observation that “changing language is part of the process of changing the world.”

Fasset & Warren (2006) expand on this observation, noting that:

how we talk about identities shapes how we understand those identities, and, more importantly, the actions we take to respect the role of our communication, as researchers, in defining and obfuscating that process [...] Calling out a more complex, nuanced understanding of identity as emergent from communication commits us to more complex and nuanced understandings of power, privilege, culture, and responsibility. (Fassett & Warren, 2006, p. 4)

What is being acknowledged is the need for a critical communication pedagogy within the programs which will extend beyond the ‘classroom’ to all levels of communication with stakeholders. Fassett & Warren (2006) describe a series of commitments, a few of which I will highlight as being particularly pertinent to program communication strategies in the classroom and in communication between stakeholders:

In Critical Communication Pedagogy, identity is constituted in communication... Culture is Central to Critical Communication Pedagogy, not Additive... Critical Communication Educators Embrace a Focus on Concrete, Mundane Communication Practices as Constitutive of Larger Social structural systems... Language (and Analysis of Language as Constitutive of Social Phenomena) is Central to Critical Communication Pedagogy... Critical Communication Educators Engage Dialogue as Both Metaphor and Method for Our Relationships with others. (pp 3-16)

These strategies need to form the basis of communication at all levels from within the program construction and practice through to communicating the change process with stakeholders if the goal for inclusivity and power imbalance mitigation is to be achieved. The interdisciplinary cohort that will constitute the Change Lab program necessitates a need for these critical pedagogical guidelines. Holt et al., (2017) describe issues relating to interdisciplinary research and conclude that “[t]he most effective remedies concern how—not what—knowledge is transferred and the willingness of actors to collaborate” (p. 128).

Needs analysis and program planning is an important aspect of initial conversations with potential higher education institutions relating to the Change Lab and teacher training programs. As there are no fixed long-term curricula and there will be ongoing revisions, these can be directed toward student needs through consultation. As participation will be largely voluntary through electives for service learning and practicum programs, it is essential to learn the needs and interests of potential participants. This refers not only to individual students but to the needs and interests formulated by national and international educational policies, research findings, and the institutional mission of relevant university departments. Even when students, departments,

and institutions are clear of their needs related to ecocentric education teacher training practicum and research programs, they may not take the step of considering GET programs. Therefore, a marketing strategy is necessary to inform and perhaps make the need conscious. This communication strategy can involve the targeting of subtle needs to help create expressed needs (Sava, 2012).

Cultural and language diversity and inclusion

As a program and organization whose purpose is to explore ecocentric education through multicultural and particularly the relationship between Indigenous and nonindigenous perspectives, it is important to develop relationships led by Indigenous scholars as a communication strategy. “Of primary importance will be for educators to recognize their role as learning apprentices, step back, put aside their Eurocentric views, and listen with humility” (Dennis, 2019, p. 41). Bishop (2002) discusses ally relationships between nonindigenous and Indigenous Canadians:

Allies are distinguished by several characteristics: their sense of connection with other people, all other people; their grasp of the concept of collectivity and collective responsibility; their sense of process and change; their understanding of their own process of learning; their realistic sense of their own power - somewhere between all powerful and powerless; their grasp of "power-with" as an alternative to "power-over;" their honesty, openness and lack of shame about their own limitations; their knowledge and sense of history; their acceptance of struggle; their understanding that good intentions do not matter if there is no action against oppression; their knowledge of their own roots. (p. 164)

Developing capacity for communication based on these goals will start as an intention and be built into the program structures as a learning outcome. Overcoming ‘Settler shame’ in communication and action is important from both Indigenous and nonindigenous perspectives and is to be avoided and stated in communication and programming. Kizuk (2020) draws on the work of Sara Ahmed and Glen Coulthard and shows that a politics of recognition informed by Settler shame has done little to actually see or hear Indigenous peoples on their own terms:

Since settler shame is a self-directed emotion that seeks to be discharged through reconciliatory processes that are dependent on liberal recognition, it remains a mere optics of justice wedded to settler ignorance. The dependence on insufficient recognition renders the reconciliatory drive in Canada similarly insufficient, even harmful. Settler shame, then, is dangerous in relationship with recognition and reconciliation in Canada today, maintains settler colonialism, and forestalls Indigenous futurity and resurgence. (Kizuk, 2020, p. 1)

Forging relationships through communication is no easy task and patterns and power dynamics need to be questioned whilst maintaining a mutual sense of honor. Giving up political power doesn't necessitate personal diminishment.

Next Steps and Future Considerations

This OIP concerns itself with developing the teacher training programs within a college-level transdisciplinary environmental humanities LRW program, with short 3-week experimental laboratory school type ecocentric education K-9 land-based programs as a teacher training and LRW learning practicum environment. Each iteration of concurrently run programs is six weeks in length and six will be conducted through a year at two geographical locations (Spain and Canada) for two years as one change cycle. The next steps would consist of what to do with the data emanating from this 2-year cycle and how the increased capacity would manifest itself.

Future considerations would be based on the success and results learned through the change process cycle. Would the analysis of program evaluation results necessitate continuing years of similar cycles before capacity has been built to develop the short-term laboratory school programs into longer-term programs and eventually full-time school programs, and at what grades would this increase in program length be developed first? There are several potential options of how to move forward after this first 3-year change cycle.

Five-year research project. The 2-year LRW change process could seem like it would benefit from continuing as a 5-year research project either because evaluation analysis shows a momentum that could benefit from an extension or because the analysis describes a subtle unfolding of knowledge and understanding that will take longer to unfold.

Full-time Laboratory School and Teacher Training/Change Lab at one location. If the 2-year cycle of programs at the two locations provides the data and results that analysis concludes there is no further need to continue with both locations, then a future plan could be to put all resources into one of the locations and develop longer-term K-9 programs at that one location. This decision could be made for logistical reasons, i.e. travel is no longer possible for

the key staff team. It could also be that one location is more successful due to facilities, feedback, resources, and support from stakeholders.

Two-location part-time programs. A similar next step option could be to maintain the two locations running programs for six months at each location. This option could be beneficial if maintaining a multicultural perspective would be served by operating and continuing to learn from cohorts and students from different geographical locations. It could also be of benefit to offer exchange programs between two locations, perhaps one English and one Spanish speaking, to operate bilingual programs that could work more easily with Indigenous students from Latin America. Developing capacity in two locations could also lead in the future to each operating semi-independently with enough local stakeholder support.

In summary, 1-year preparation and following 2-year LRW cycle of change programs proposed in this OIP will produce a set of data to be analyzed and will produce both a Systemic Theory of Change (SToC) and a Theory of Action (ToA) that will inform the next steps. A SToC is a theory of how and why a certain intervention will be successful. Stakeholder commitment level is one key consideration, but other data results relating to efficiencies of resources and other financial practical considerations are key. Ideally, the decision for future plans would be based on the development of programs that successfully meet vision and mission statement goals and serve the greatest number of students offering a quality ecocentric education in a format that can be scaled up to reach more and more students working for a good Anthropocene.

Conclusion

In a letter to the Guardian newspaper on March 1, 2019, The Global Coordination Group of the Youth-led Climate Strike (GCGYLCS, 2019) begin their statement regarding reasons for a planned March 15, 2019, worldwide school strike:

We, the young, are deeply concerned about our future. Humanity is currently causing the sixth mass extinction of species and the global climate system is at the brink of a catastrophic crisis. Its devastating impacts are already felt by millions of people around the globe. Yet we are far from reaching the goals of the Paris agreement. (GCGYLCS, 2019)

The letter continues to explain the concerns of the youth movement regarding the crisis and the lack of responsibility of the adult generation of leaders and concludes:

You have failed us in the past. If you continue failing us in the future, we, the young people, will make change happen by ourselves. The youth of this world has started to move, and we will not rest again. (GCGYLCS, 2019)

GET Has been working with youth from Canada, Thailand, Belize, and Ecuador for over twenty years teaching ecocentric education and offering environmental education/cross-cultural expeditions. In this OIP I have explored the problems encountered as the organization has attempted to expand its course and school programming to become a multicultural and social learning full alternative K-9 school and instructor training education centre so that they can fully confront the aforementioned crisis and attempt not to fail the youth, but work together to create solutions. This paper has presented a plan for the first steps to reach this goal based on conducting a series of research laboratory in the real-world (LRW) programs. The LWR's would be conducted by university level transdisciplinary environmental humanities and trainee teacher cohorts creating, testing and evaluating an ecocentric curriculum prioritizing and providing positive experiences of sustainable living practices whilst questioning the political, social and philosophical systems that have brought us to the Anthropocene/Capitalocene, with the purpose and goal of creating curriculum to improve GET's K-9 programs to more fully realize their goal of being fully inclusive in access and approach in terms of gender, the environment, non-Euro/Euro North American cultures, and marginalized identities whilst achieving their ecocentric educational goals at all levels of the organization so that pedagogic solutions are gender-balanced and culturally and demographically applicable, transferrable and scalable.

Continuing its work as a joint Indigenous/nonindigenous operation at all levels and increasing inclusivity criteria for all demographics, the GET organization plans this continuous curriculum development based on the environmental humanities subject divisions and our common ancestral hunter-gatherer skill set on which all our brain and body abilities evolved. GET directors believe that humans have the deductive, philosophical, and physical skills to deal with existential crises and have done so many times in our past. In dealing with a crisis of our own making, it is time to come together and pool all our resources, skills and knowledge in an attempt to overcome the challenge of knowing ourselves as a species deeply enough to mitigate the negative consequences of our individual and communal actions through a pedagogic process. GET directors believe we can create new social forms to fulfil our needs without inadvertently or purposely conquering and destroying the Earth and each other. Listening to and learning from each other is the first step.

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Appendix A - Short, medium and long-terms change process schedule

Short Term – Step 1 - year 1

Implementation	Assessment	Communication	Month
GET directors approve OIP. Prepare vision, mission, values, philosophy and pedagogic and curriculum principles document. Director roles for change process assigned and confirmed. Change lab facilitator. Communications manager Canada/finance manager, communications manager Spain, Communications manager Indigenous/sustainable communities	General meeting agreement	OIP document to read	1
Prepare action plan for change process consisting of Change Lab facilitation plan, financial plan and communications plan for stakeholders	Directors approval of plan	Prepared document	1
Prepare communication materials as per communications plan	Directors approval, local stakeholder feedback	Communication materials	2
Approach current stakeholders with change proposal as per communications plan	Communications manager check	Various materials and mediums	2
Follow up with current stakeholders, receive feedback	Communication manager and stakeholder feedback forms and conversations	Various mediums	3
Directors meeting looking at feedback	Meeting discussions and data	Looking at various data	3
Prepare communications materials for second level of current stakeholder communication plan based on feedback	Communications manager and stakeholder conversations and feedback forms	Various materials and media as communications plan	4
Approach new and potential stakeholders as per communications plan	Communications manager check	Various media and materials	4
Follow up with new and potential stakeholders, receive feedback	Communications manager and stakeholders'	Various media	5

	conversations and feedback forms		
Directors meeting looking at feedback from new stakeholders	Meeting conversation and data	Data materials	5
Prepare communications materials for second level of new and potential stakeholder communication plan based on feedback	Communications manager and stakeholder conversations and feedback materials	Various materials and media	6
Directors meeting looking at feedback	Meeting conversation and data	Data materials	6
Prepare conference material (online and in person) for next level of stakeholder consultation based on feedback from current and new stakeholders	Communications manager working with media staff. Feedback from directors	Various media and materials	7
Conduct conferences with stakeholder and receive feedback via conferences to decide on meeting schedule	Communications manager and stakeholders' conversations and feedback forms	Various media	7/8
Prepare document for stakeholders regarding step 2 change plan and 6-week change lab sessions. Format and schedule and literature materials needed	Directors meeting working with all data and materials	Various media and materials	8
Send materials to interested stakeholders and set up meetings for feedback	Communications managers and stakeholders' conversations and communications	various	8
Conduct feedback meetings	Communications managers and stakeholders' meetings	Notes and documents	8
Directors meeting looking at feedback and preparing final working schedule and materials for change lab sessions for step 2 change process	Directors meeting conversation and data	various	9
Send final materials to interested stakeholders and set up meetings to finalize agreements	Communications managers and stakeholders	Various media and materials	9

Adjust and sign agreements with stakeholders			9
Arrange and conduct conference with all contracted stakeholders in preparation for year 2 with question and answer session	All directors and stakeholders	Zoom plus various materials	9
Prepare materials and schedule and communications plan for step 2 change process	All directors and media staff	various	9
Send out material to stakeholders and field questions and concerns and make adjustments	Communications managers and stakeholders, conversations and feedback materials	Various documents	9

Medium term – step 2 – years 2+3

GET directors prepare staff plan for step 2 change lab. Start hiring process for change lab camps and key positions depending on number of labs to be conducted in year one. Assign director roles: change lab facilitator; communications manager; finance manager, land managers.	Directors, staff meetings, communications. Conversations, ads, meeting with aligned schools and staff		10
Change lab communications managers conducting ongoing meetings and communication with stakeholders regarding individual needs and queries	Communications managers and stakeholders. Conversations and feedback materials		11/ 12/ 13
Change lab facilitator working with program team to prepare 6-week change lab sessions working with stakeholders via communications managers.	Change lab facilitator working with directors and staff. Meetings and documents and communications	Various materials and documents	11/ 12/ 13
Conduct first change lab 6-sweek session	Full integrated team and stakeholders in nested teams led by change lab manager and director team		14/ 15
conduct subsequent year 1 change lab sessions following	Full integrated team and stakeholders in nested teams led by		17- 24

communication and feedback and redesign protocols	change lab manager and director team. Feedback as per evaluation plan		
End of year 1 conference with stakeholders. Feedback sessions.	Directors and stakeholders' conversations and communications and meetings		25
Directors meeting to design and prepare year 2 sessions	All directors and staff. Separate and meetings together with feedback loops of questionnaires and conversations.		25
Conduct year two change lab sessions following communication and feedback and redesign protocols	Full integrated team and stakeholders in nested teams led by change lab manager and director team. Feedback as per evaluation plan		26/ 36
End of step 2 conference with stakeholders. Feedback sessions	Directors and stakeholders' conversations and communications and meetings		37
Directors meeting to decide on future change steps	All directors and staff. Separate and meetings together with feedback loops of questionnaires and conversations.		37

Long term – step 3 – years 4+

Future steps ideas shared with stakeholders	Communications managers and stakeholders in conversation, meetings and feedback forms and materials	
Receive stakeholder feedback to future steps ideas	Communications managers and stakeholders in conversation, meetings and feedback forms and materials	

Directors meeting to decide on future steps plan	All directors in conversation with staff at separate and joint meetings with feedback	
Future steps action plan shared with stakeholders	Communications managers and stakeholders	
Stakeholder input before finalizing future steps plan	Communications managers and stakeholders with feedback forms and conversations	