Critical Assessment for Transformative Education: For People and the Planet

by

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Abstract

The purpose of this portfolio is to review the relevant academic literature from environmental and social justice education, as well as assessment and evaluation, to make the case for critical assessment and evaluation practices for transformative education. As we grapple with persisting social inequality, that was amplified by the impacts global COVID-19 pandemic, and while we also move closer towards irreversible tipping points in the climate crisis, it is clear that education for social reproduction is insufficient in addressing the challenges we collectively face. Assessment and evaluation, although one of the most fundamental and ongoing duties of classroom teachers and educators, has largely been left out of conversations about environmental and social justice education. Thus, this portfolio makes the case for critical assessment practices that can support teachers in the province of Ontario who wish to support environmental and social justice education in their practice. The tasks included in this portfolio are: 1) a literature review; 2) a guide to critical assessment; 3) an infographic summarizing the guide's connection to the academic literature; and 4) a personal reflection.

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Chapter 1: Introduction

The Intergovernmental Panel on Climate Change (2019) has identified that we are now living in a climate crisis. A changing climate, caused by human activity across the globe, is threatening the safety, livelihoods, and well-being of people worldwide (IPCC, 2019). The last decade has also been marked by several social movements pushing for social and ecological justice here in North America and across the globe (e.g., Black Lives Matter, 2022; Idle No More, 2022; Fridays for Future, 2022; Sunrise Movement, 2022). In Canada, First Nations, Métis, and Inuit communities continue to defend their traditional territories from damaging extractive industry (e.g., Unist'ot'en, 2022) and resist colonial infringement on their Treaty rights (e.g., Bailey, 2020). The COVID-19 global pandemic of the last two years has also highlighted various issues of systemic inequality across many of the richest countries in the world, including here in Canada.

As scholars and activists have noted, the many manifestations of the current environmental crisis reflect predominant Western concepts of nature as mere resource to be exploited for human gain (Bell & Russell, 2000). Ecofeminists, Indigenous[1] land defenders, and environmental justice activists have shown that forms of domination are intimately connected and mutually reinforcing, suggesting that the exploitation of nature is not separate from the exploitation of human groups (Bell & Russell, 2000; Maina-Okori et al., 2018). Thus, a shift from this exploitive approach to the more-than-human world is deeply needed, not just in addressing our environmental crises, but also the mutually reinforcing crises of social injustice (Bell & Russell, 2000).

[1] The term Indigenous is used throughout this portfolio to refer to First Nations, Métis, and Inuit communities across Turtle Island (Animiki, 2022). The term 'Aboriginal' is used once when citing an outside author.

Education is frequently called upon as part of the solution to both environmental and social justice issues. Here in Canada, the Truth and Reconciliation Commission of Canada (TRCC) released 94 calls to action aimed at acknowledging and addressing the damaging and lasting impacts from the human rights abuses in the Indian Residential School system (TRCC, 2015). Justice Murray Sinclair, the Truth and Reconciliation Commission chair, was quoted as saying that "education is what got us into this mess—the use of education at least in terms of residential schools—but education is the key to reconciliation" (Watters, 2015, para. 17).

Similarly, environmental educators have long called for education as a tool to challenge and transform our collective ways of thinking and being (e.g., Allison et al., 2012; Brennan & Widdop, 2020; Breunig, 2005; Crex Crex Collective, 2018; Fawcett et al., 2002; Gruenewald, 2008; Itin, 1999; Jickling & Wals, 2008; Kahn, 2008; Korteweg & Russell, 2012; Misco & Shiveley, 2016; Scully, 2012). Recognizing that our current ways of living are oppressive and unsustainable, part of the solution must be education that seeks to transform the way we see ourselves in relation to each other and the more-than-human world. This is especially important for the future, as it is the children and youth of today who will be tasked with facing the worst impacts of an unstable climate over their lifetime (Field, 2017). Therefore, providing youth with adequate interdisciplinary education on environmental and social justice issues should be seen as fundamental within our education systems, especially if we view the purpose of education as a preparation for what lies ahead in the lives of students (Field, 2017).

Although many educational theorists have turned their attention to pedagogies and instructional practices that serve both environmental and social justice education, assessment and evaluation practices that do the same remain far less examined. Similar to many other fields within education, there remains a divide between environmental and social justice education

theories, educational research on evaluation, and the day-to-day practices of educators in schools. One way that many environmental and social justice education theories and pedagogies remain disconnected from educational praxis is that they often ignore or disregard assessment and evaluation, even though assessment and evaluation practices represent one of the most fundamental and ongoing duties of a classroom teacher. Thus, the purpose of this portfolio is to review relevant academic literature and make the case for critical assessment and evaluation practices for transformative education.

Description of Tasks

The tasks included in this portfolio are: 1) a literature review; 2) a guide to critical assessment; 3) an infographic summarizing the guide's connection to the academic literature; and 4) a personal reflection.

Literature Review

The purpose of this task is to examine literature in social justice and environmental education as well as literature linking assessment, evaluation, and equity. As part of the literature review, I examine: 1) the intersection of social justice and environmental education; 2) the relationship between assessment, evaluation, and equity; and 3) assessment and evaluation practices in Ontario schools. By identifying connections between these topics, I make the case for critical assessment and evaluation practices that support transformative education in building a more just world for people and the planet.

Guide to Critical Assessment

The purpose of this task is to consider how to apply the academic literature relating to assessment and evaluation practices to support student learning for transformative education. The guide is a simple assessment and evaluation framework that is informed by the literature review

and could be used in an Ontario secondary school classroom such as my own. Given that this framework is intended to be of use to teachers working in Ontario schools, it also fits within the Ontario Ministry of Education's (2010) policy on assessment, evaluation, and reporting in schools, *Growing Success.*

Infographic

Recognizing that using the guide to critical assessment in praxis may challenge more traditional practices frequently used in schools, the purpose of the infographic is to summarize how the framework is grounded in the academic literature. In order to honour the reality of practising teacher and administrator time constraints, I hope that the infographic provides a succinct summary of the academic research that is discussed in this portfolio, and offers a brief yet clear justification for the use of more transformative assessment and evaluation practices in Ontario classrooms.

Personal Reflection

This reflection ties together the learning that came from completing this portfolio, wherein I connect my own experiences with assessment and evaluation as a student, an educator, and a human being who sees the need for transformative change.

Situating Myself

Maina-Okori et al. (2018) extend an invitation to researchers and practitioners in the field of environmental and sustainability education to reflect on the intersections inherent in their own experiences and positionality as a starting point for addressing the broader issues, and how they interconnect, in their teaching and research. I am a heterosexual, non-disabled, White, woman settler of European descent. I currently live as an uninvited guest on the traditional territory of Fort William First Nation, signatory to the Robinson-Superior Treaty of 1850. I recognize

through my various intersecting social positions that I have had the privilege of living a relatively barrier-free life, experiencing little discrimination and oppression. Although our society is still largely patriarchal in often hidden and systemic ways, I recognize that even as a woman, my intersecting social positions have also awarded me privilege. Through this portfolio and beyond, I hope to use my privilege to continue learning and acting in allyship with those who have not been awarded such privileges as well as to work to dismantle the systems and institutions that perpetuate oppression.

Chapter 2: Literature Review

This review will examine literature in social justice and environmental education as well as literature linking assessment, evaluation, and equity. First, I examine the literature concerning the intersections between social justice education, also often referred to as critical pedagogy, and environmental education. I consider how critical pedagogy and environmental education can help imagine and create a more socially just future for human and more-than-human communities. I then narrow my focus to the intersections between critical pedagogy and experiential and land-based education. Experiential education is a philosophy of education that shares numerous educational aims with critical pedagogy (Breunig, 2005). Land-based education is a form of Indigenous education that is rooted in Indigenous knowledge systems, cultural resurgence, decolonization, and reconciliation (Calderon, 2014; Simpson, 2014; Wildcat et al., 2014). The potential for connecting environmental and social justice theories in praxis within the Ontario curriculum will then be examined.

In the second section, I turn my attention to literature on assessment, evaluation, and grading practices, and how they influence equity in education. Through this discussion I show that assessment and evaluation practices must be considered in relation to educational theories and movements that strive for a more just world. Finally, the limitations of the current Ontario Ministry of Education (2010) document on assessment, evaluation, and reporting are examined within the context of assessment and evaluation for transformative education.

Social Justice and Environmental Education

Social justice education and environmental education intersect in several ways, both using education as a medium to work towards a more just world (Allison et al., 2012; Brennan & Widdop, 2020; Bruenig, 2005; Bruenig & Dear, 2013; Gruenewald, 2008; Itin, 1999; Kahn,

2008; McKeon, 2012; Misco & Shiveley, 2016; Warren et al., 2014). That does not mean that they are always mutually reinforcing, however, given there are many approaches in both broad fields. An examination of critical pedagogy demonstrates an historical absence of ecological thinking in many of its foundational theories such that, until quite recently, much of the field has been highly anthropocentric, concerned exclusively with human-to-human relationships (Bell & Russell, 2000; Breunig, 2005; Gruenewald, 2008; Russell & Fawcett, 2013). On the flipside, many environmental education theories and pedagogies have focused solely on human-environment relations, ignoring issues of inequity, race, class, and social domination (Bell & Russell, 2000; Breunig, 2005; Gruenewald, 2008; Russell & Fawcett, 2013).

There are now numerous strands of environmental education that make explicit connections to social justice. Feminist environmental educators were among the first to make these connections in the literature (e.g., Di Chiro, 1987; Fawcett et al., 2002; Russell & Bell, 1996). Fawcett et al. (2002) discuss how the field of ecological feminism has long examined the intersection of environmental degradation and issues of social justice. At the heart of ecofeminism is the recognition that the ideology that authorizes oppressions such as those based on race, class, gender, sexuality, physical abilities, and species has much in common with the ideology that authorizes the oppression of nature (Fawcett et al., 2002; Gaard, 1993), which has much in common with more recent interest in intersectionality (Maina-Okori et al., 2018). In their critical literature review of the ways intersectionality has been taken up in environmental education, Maina-Okori et al. (2018) note how numerous scholars in the field challenge dominant structures such as patriarchy, colonialism, capitalism, and anthropocentrism that reproduce social inequality and environmental degradation. They also highlight the important work of environmental educators who have been inspired by environmental justice and

Indigenous movements and are determined to expose and disrupt racism (see also Newbery, 2012; Root, 2010; Scully, 2012). Without these various critical analyses, environmental education runs the risk of perpetuating dominant ideologies and further marginalizing and silencing diverse voices and issues (Di Chiro, 1987; Fawcett et al., 2002; Gough, 2021; Lewis & James, 1995; Maina-Okori et al., 2018).

Some approaches to place-based education also take inspiration from critical pedagogy. Gruenewald (2008), for example, discusses the ways in which the fields of critical pedagogy and place-based environmental education are mutually supportive educational traditions. Place-based pedagogies aim to create citizens who are connected to and responsible for the wellbeing of the social and ecological places they inhabit (Gruenewald, 2008). However, our current system of schooling was built on the assumptions that education should mainly support individualistic and nationalistic competition in the global economy, and that competition and the creation of winners and losers in education is in the best interest of a diverse society (Gruenewald, 2008). Place-based and environmental education pedagogies that are influenced by critical pedagogies offer an important counterpoint to the assumption of individualistic competition by encouraging values of collective responsibility for the human and ecological communities that we live in. It follows, then, that to move towards effective place-based and environmental education pedagogies in schools, the use of critical pedagogies that challenge the assumptions, practices, and outcomes taken for granted in dominant culture and conventional education are deeply needed (Gruenewald, 2008).

Not all environmental educators, however, take such a critical approach. Indeed, proponents of environmental education have long held different ideas about the aims and practices of environmental education. Sauvé (2005) identified fifteen currents within

environmental education, of which the following seven were identified as having a longer history within the field: naturalist, conservationist/resourcist, problem-solving, systemic, scientific, humanist/mesological, and value-centered. Among the currents she identified at that time as more recently emerging were: holistic, bioregionalist, praxis, socially critical, feminist, ethnographic, eco-education, and sustainable development/sustainability current (Sauvé, 2005).

The latter, education for sustainable development, has held international sway for many years now. It was influenced by the "Decade of Education for Sustainable Development" that was declared by the United Nations in 2005 (Jickling & Wals, 2008; Kahn, 2008; Sauvé, 2005). This declaration put a global focus on environmental education and highlighted some of the assumptions, practices, and outcomes taken for granted in the dominant, Western approach to education. Kahn (2008) states that "in its most egalitarian form, sustainable development is offered as a political and economic platform that can generate wealth among the poor (and rich), raise living standards for all, and protect the environment" (p. 6). However, many environmental educators criticize less critical approaches to education for sustainable development, Kahn included, for its promotion of an approach that serves, or at least does not question, a neoliberal agenda and globalization (Jickling & Wals, 2008; Kahn, 2008). Neoliberal conceptions of economic growth and hyper-individualism have not only caused great ecological harm but have also greatly increased wealth and health disparities between rich and poor (Hursh et al., 2015; Jickling & Wals, 2008; Kahn, 2008). Critical environmental education and social justice education can be seen to therefore have a shared purpose of promoting alternative social imaginaries that privilege the environment and community health over the dominant neoliberal conceptions of economic growth (Hursh et al., 2015; Jickling & Wals, 2008; Kahn, 2008).

In response to the international dominance of education for sustainable development, Kahn (2008) put forth an argument for ecopedagogy that combines the Freirean conception of critical pedagogy with an ecological perspective that recognizes forms of knowledge grounded in, and responsible to, the more-than-human world. As a critical theory of education, ecopedagogy offers a critique of mainstream environmental education such as education for sustainable development, illuminating how its use of hegemonic educational discourse does not go far enough to address the underlying causes of our mounting global ecological crises (Kahn, 2008). Ecopedagogy also questions the ways in which environmental education is often reduced to forms of experiential and outdoor education that uncritically tout time spent in "nature," often represented as wilderness, that may be informed by racist, sexist, classist, and speciesist values (Kahn, 2008). Ecopedagogy unites environmental and social justice pedagogy by considering: the impact of colonialism and imperialism on constructions of society and nature; the ways in which capitalism, science, and technology work ecologically and anti-ecologically at local and global scales; the ways in which an ideological image of humanity has served to oppress all that has been deemed "other" than human; and how ruling-class culture and politics now marginalizes, intimidates, and criminalizes environmental protestors and Indigenous land defenders (Kahn, 2008).

As I have shown in this section, environmental education is a broad term that encapsulates many different branches, some that resonate well with social justice education and some that do not. As I am particularly interested in examining the intersection of environmental education and issues of social justice in praxis, I will now examine the intersections between critical pedagogy and two fields closely related to environmental education: experiential and land-based education.

Experiential Education

The Association for Experiential Education (2022) defines experiential education as: "a teaching philosophy...in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities" (para. 1). Itin (1999) describes experiential education as a holistic philosophy, where experiences are structured to require the learner to take initiative, make decisions, and be accountable for the results. Experiential education as a philosophy of education has embedded itself within environmental education under a variety of different names in the literature: outdoor education, place-based education, and nature-based ecological education, to name a few (Breunig, 2005; Breunig & Dear, 2013).

Critical pedagogy and experiential education share numerous educational aims; one is that the purpose of education should be to develop a more socially just world (Allison et al., 2012; Breunig, 2005; Itin, 1999). Experiential education, like critical pedagogy, encourages critical thinking and promotes practices that have the potential to transform oppressive institutions or social relations (Breunig, 2005). However, critical pedagogy is more of a theoretical frame than a defined set of practices. As Breunig (2005) suggests, writing in critical pedagogy tends to recommend principles that should govern eductators' work, but says little about how they might actually enact these principles. Further, Breunig (2005) identifies a lack of alignment between what is emphasized theoretically in critical pedagogy and what is typically practiced in experiential education.

Despite these challenges, a common thread of both experiential education and critical pedagogy is a rejection of what Paulo Freire termed the "banking model" of education, whereby teachers are understood to be simply depositing knowledge into the "empty" repository of the

student mind (Breunig, 2005). Instead, in experiential education the teacher is responsible for presenting opportunities for experience, helping students utilize these experiences, establishing the learning environment, placing boundaries on the learning objectives, sharing necessary information, and facilitating learning (Itin, 1999). Experiential education as a philosophy is also similar to critical pedagogy in that it recognizes that education cannot be neutral; the choice of what is taught and not taught must be understood in a political context (Itin, 1999). Itin (1999) and other experiential educators argue that by not paying attention to the political aspects of education, by default that supports the dominant paradigm that is currently informing the socio-political-economic aspects of the educational system. Both experiential education and critical pedagogy thus are concerned with the ability of education to enhance the critical consciousness of learners so that they can go on to make transformative change and better our world through democratic processes (Itin, 1999).

Although experiential education may happen in classrooms and lecture halls, outdoor experiential education has historically focused primarily on nature (often "wilderness") experiences to promote environmental action and stewardship. Russell (1999) critiques the simplistic assumptions often underpinning this approach, namely that nature experience somehow automatically leads to caring, and then leads to action on environmental issues. The relationship between nature experience, knowledge, caring, and action is more complicated than that, with experiences and personal story connected in nuanced ways, which means nature experiences are often interpreted in different ways by different people (Russell, 1999). Russell (1999) also identifies how, if environmental experiences fail to explicitly address issues of race, gender, class, or underlying assumptions about human/nature relationships, these experiences can

result in practices that reproduce the very patterns of social domination they may have been initially trying to resist.

Warren et al. (2014) reviewed the literature on the intersections of outdoor experiential education and issues of social justice, highlighting how outdoor experiential education has often been critiqued for its historical privileging of White, male, middle/upper-class, able-bodied perspectives. Although there has been significant work done to understand issues of social justice in outdoor experiential education, there remain gaps in our understanding about: the meanings of outdoor places and the concept of adventure; the intersectionality of race, class, gender, and other identities; how different cultural groups experience the outdoors; the role of socioeconomics and class oppression; universal design and accessibility as the norm; and the continued exclusion of certain groups from outdoor experiential opportunities (Warren et al., 2014). There is certainly more work to be done in experiential education, although there have been encouraging developments in the field. For example, land-based education shows promise as one form of outdoor experiential education that emphasizes social and ecological justice, which I discuss next.

Land-based Education

In 2015, the Truth and Reconciliation Commission of Canada (TRCC) released 94 calls to action aimed at acknowledging and beginning to address the damaging and lasting impacts from the human rights abuses in the Indian Residential School system. Calls to action 62 to 65 address "education for reconciliation," highlighting a number of problems with educational systems that need to be addressed in order for Indigenous and non-Indigenous Canadians to move forward in reconciliation. These include, but are not limited to: creating mandatory age-appropriate curriculum on Residential Schools, Treaties, and Aboriginal peoples' historical

and contemporary contributions to Canada; educating teachers on how to integrate Indigenous knowledge and teaching methods into classrooms; and more (TRCC, 2015).

Even before the release of the TRCC's report, Indigenous leaders, communities, academics, and educators identified the integral role of education in moving towards decolonization and reconciliation with First Nations, Métis, and Inuit communities (e.g., Calderon, 2014; Donald, 2009; Korteweg & Russell, 2012; Scully, 2012; Wildcat et al., 2014). It is important to recognize that decolonization is not a metaphor for talking generally about social justice or critical methodologies, but rather is a distinct project specifically accountable to Indigenous sovereignty and futurity (Tuck & Yang, 2012). That is also why education that seeks to support decolonization must address the realities of settler colonialism and relationships to land.

Wildcat et al. (2014) argue that since colonization is fundamentally about dispossessing and disconnecting Indigenous people from land, decolonization should involve forms of education that reconnect Indigenous peoples to land, including the social relations, knowledge, and languages that arise from the land. Calderon (2014) argues that "while place-based education models emphasize community needs and engagement, they do not go far enough to promote decolonizing goals that should be included in any place-based education model interested in cultural and ecological sustainability" (p. 26). She also suggests that to teach for ecological sustainability, teachers must take a decolonial approach that considers the original inhabitants of the places in which we teach.

Korteweg and Russell (2012) argue that attending to the difficult process of decolonization while working towards respectful Indigenized environmental education is a way towards a new paradigm of land-based education-as-reconciliation. They suggest that

environmental education is a good space in which decolonization can happen, given environmental educators have often pointed out the devastation and damage to the Earth as a result of a colonial, exploitative, industrial mindset (Korteweg & Russell, 2012). A more inclusive pedagogical approach to environmental education that centres Indigenous knowledge would not only enhance environmental understandings, but also better prepare students and instructors to effectively address the world's growing ecological concerns (Kapyrka & Dockstator, 2012; McKeon, 2012).

It should be noted that there are significant differences between outdoor experiential education (or education that happens *on* the land) and land-based education. For example, Newbery (2012) explores canoe pedagogy and concepts of wilderness in outdoor experiential education and suggests that canoe trips in Canada often reproduce idealized notions about Canadian identity, Indigenous heritage, and fantasies of wilderness. She argues that Canada, the canoe, and wilderness are all constructs that have been constituted and reconstituted through colonial experience, and that these constructs are often left unexamined within the realm of outdoor education (Newbery, 2012). Similarly, Root (2010) demonstrates how White outdoor environmental educators often do not emphasize the interconnectedness of the land with the traditional people of the land. In contrast, land-based education is fundamentally about relationality and interconnectedness between people and the more-than-human world (Simpson, 2014; Scully, 2012).

Land-based education, then, is a form of Indigenous education that centres Indigenous epistemologies, where land is the first teacher (Simpson, 2014). Simpson (2014) explains:

> The land, aki, is both context and process. The process of coming to know is learner-led and profoundly spiritual in nature. Coming to know is the pursuit of whole body

> intelligence practiced in the context of freedom, and when realized collectively it generates generations of loving, creative, innovative, self-determining, inter-dependent and self-regulating community minded individuals. It creates communities of individuals with the capacity to uphold and move forward our political traditions and systems of governance. (p. 7)

Simpson (2014) contrasts land-based education with her experiences with Western education: "my experience of education was one of continually being measured against a set of principles that required surrender to an assimilative colonial agenda in order to fulfill those principles" (p. 6). Land-based education instead offers a framework that centres Indigenous knowledge and can reconnect Indigenous peoples to land (Wildcat et al., 2014). This work can also unsettle the forces associated with continued settler colonialism that are prevalent in mainstream Canadian education.

Donald (2009) argues that decolonization in education must be a shared endeavour between Aboriginal and non-Aboriginal Canadians. To do this, he recommends educators engage in purposeful juxtaposition of European and Indigenous perspectives and stories of history and historical places. Further, Donald (2009) acknowledges the need to honour how places have changed as a result of colonization and settlement, meaning that such places can paradoxically and simultaneously be both Aboriginal and Canadian. These questions of place, Canadian identity, and land ethic all arise in the social sciences curriculum in Ontario. I turn now, then, to a discussion of where environmental and social justice theories have been, or might be, taught within the Ontario curriculum.

Critical Environmental Learning in the Ontario Curriculum

Several authors have examined the Ontario curriculum for evidence of environmental and social justice learning opportunities. For example, Mnyusiwalla and Bardecki (2017) found that many Ontario curriculum expectations focusing on place-based environmental education occur in elective courses with low enrolments, suggesting that the focus of the core curriculum in Ontario is still lacking in its integration of environmental education. Godlewska et al. (2010) examined the Canadian and World Studies curriculum of that time and noted the gaping absence of Indigenous content, which they argue reveal that ignorance of Indigenous realities in Canadian education is neither neutral nor incidental, but rather is a result of a "profoundly purposive and wilful ignorance" (p. 419). Sharing an interest in this epistemology of ignorance, Shaefli et al. (2018) demonstrate how the most recent version of the Canadian and World Studies curriculum continues to place Indigenous content in the past, denies colonialism, and encourages a "logic of relation premised on Indigenous disappearance" (p. 1).

While there are clearly serious shortcomings in Ontario's curriculum, there also are some openings, particularly in social studies curriculum. Misco and Shiveley (2016) suggest that social studies is a prime site for social justice education because, as a field, it has the ability to critically examine social issues from multiple perspectives, explore past and present inequities, and propose possibilities for change in an increasingly globalized world. Calderon (2014) similarly discusses the importance of social studies curriculum in environmental education in understanding the different ways a land ethic is created, "especially through dominant paradigms related to how national identity and citizenship help construct damaging and unsustainable relations to land" (p. 29). As McKeon (2012) suggests, environmental education is about re-storying our lives, the land, and our relationship to it. She argues that through "two-eyed

seeing" that views Western and Indigenous points of view, environmental education can also become focused on interconnections: between peoples; between ways of thought; and between human beings and the natural world.

It is important to state here, given the focus of my portfolio, that although many educational theorists have turned their attention to pedagogies and instructional practices that serve both environmental and social justice education, it is notable that assessment and evaluation practices that do the same remain far less examined. There are a few exceptions. For example, Tal (2005) argues that because environmental education is interdisciplinary, holistic, and covers a wide scope of learning, environmental education programs should have a suitable assessment framework that reflects the various aspects, modes, and settings in which learning occurs. Wals and Van der Leij (1997) argue that environmental educators should focus on assessing the process of environmental education learning using four categories of learning enhancement criteria: closeness to daily life, cognitively challenging, controversial, and focused. These criteria aim to shift the focus away from student achievement of "standards" to the quality and depth of student learning (Wals & Van der Leij, 1997). Within the Ontario context, Dubé (2009) examined the assessment and evaluation practices of two interdisciplinary secondary school environmental studies programs, concluding that locally developed assessment criteria allowed educators to evaluate beyond understanding of curriculum expectations to emotional-social learning and the development and performance of skills.

These examples of assessment for environmental education programs are helpful in thinking about the relationship between environmental and social justice learning and assessment, but the reality for most classroom teachers is that they are required to adhere to specific policies and procedures around assessment, evaluation, and reporting. In Ontario, it is

common practice for educators to plan their instruction by starting with the end (i.e., final assessments) in mind (Dubé, 2009). This is referred to as "backwards planning". The Ontario curriculum lays out the general terms of what is to be taught in each subject area/course, but teachers use their professional judgement to determine which specific expectations are used to evaluate student knowledge and understanding of the overall content, and which expectations are taught but not necessarily evaluated (Ministry of Education, 2010). Of course, what teachers chose to evaluate is what is communicated to students as being the most important content. How then do teacher practices of assessment and evaluation affect what is taught in classrooms? What messages are sent to students through assessment and evaluation practices about what knowledge is important; that is, what *counts*? I grapple with these questions as I turn to the second substantive area of literature that I reviewed for this portfolio.

Assessment, Evaluation, and Equity

Assessment and evaluation, although often referred to simultaneously, are two distinct sets of practices. Assessment is the process of gathering information that reflects student understanding, with the intended purpose of improving student learning (Ministry of Education, 2010). Assessment is meant to inform instruction and can happen before, during, or after instruction (Ministry of Education, 2010). Evaluation refers to the process of judging the quality of student learning and assigning a value or grade to represent that quality (Ministry of Education 2010, p. 28). In this section, a discussion of the connection between assessment and learning will be followed by a discussion of grading and evaluation practices.

Assessment and Learning

There are three types of assessment recognized by the Ontario Ministry of Education (2010) as well as the broader assessment literature: assessment *for* learning (AFL), assessment *as*

learning (AAL), and assessment *of* learning (AOL). AFL and AAL emphasize assessment practices that are ongoing and take place during a lesson or unit of study; examples include a journal reflection, self-assessment, or submission of a draft. AOL emphasizes assessment practices that serve an evaluative function, often at the end of a unit or term; examples include quizzes, tests, exams, essays, and projects. Most practising teachers have traditionally attached more importance to and emphasis on AOL because it is utilized for grading and evaluation purposes (DeLuca & Volante, 2016). Nevertheless, research suggests that teacher use of an array of AFL methods, also commonly referred to as formative assessment, is the most critical to promoting student learning (Black & Wiliam, 1998; DeLuca & Volante, 2016).

Research on the impact of AFL indicates that consistent utilization of formative strategies such as questioning techniques, feedback without grades, peer assessment, self-assessment, and formative use of summative assessments can double the speed of student learning (Black & Wiliam, 1998; DeLuca & Volante, 2016). This research also suggests that AFL practices can help students struggling academically in the classroom the most (DeLuca & Volante, 2016). The informational value of formative assessment is also important in terms of the specific feedback it provides to students (Shepard & Penuel, 2018). Feedback is more likely to be beneficial to student learning when it helps students see how to improve (Black & Wiliam, 1998; Shepard & Penuel, 2018). Feedback focused on features of the task or a student's strategies most often leads to positive learning, while feedback focused on the person in comparison to others can actually harm learning (Shepard & Penuel, 2018). Feedback conveyed in the spirit of improving also helps to foster an orientation to learning, also referred to as a growth mindset, whereby students work to feel an increasing sense of mastery and competence (Shepard & Penuel, 2018). Conversely, a classroom focus on extrinsic motivators develops in students a performance

orientation aimed at getting good grades, pleasing the teacher, and appearing competent rather than working towards actual competence (Shepard & Penuel, 2018).

Despite the connections between AFL and student learning, it has been found that classroom teachers' assessment practices often lag behind the current research base in relation to AFL (DeLuca & Volante, 2016; Jang & Sinclair, 2018). The reasons for this disconnect are multifaceted but can be linked to both the conservative culture of schools and a lack of appropriate professional development (DeLuca & Volante, 2016; Jang & Sinclair, 2018). This disconnect also extends to pre-service student teachers who, even when they are being taught about AFL, are often socialized by their supervising teachers during professional placements. This creates a cyclical process where preservice teachers go on to replicate the more traditional, unexamined assessment practices of their supervising placement teachers (DeLuca & Volante, 2016). To break this cycle, pre-service and in-service teacher education needs to challenge established and entrenched teaching practices around assessment to build a culture of AFL in schools, but clearly teacher education alone cannot solve this problem.

Indeed, another reason why a culture of AFL has been slow to take off in Ontario schools is that it contrasts with an already existing culture of accountability, which frames the purpose of assessment as providing data for overall school improvement (Jang & Sinclair, 2018). In Ontario, all students in grades 3, 6, 9, and 10 participate in large-scale assessments in student literacy and mathematics, organized by the Educational Quality and Accountability Office (EQAO). The EQAO is an independent government agency that uses the results of these large-scale provincial assessments to publish school rankings by student performance, serving a perceived demand for accountability to the public (Jang & Sinclair, 2018).

Although much has been said about the ineffectiveness of EQAO assessments in properly capturing student learning, of particular relevance to my portfolio is the recognition that the purpose of these large-scale assessments conflict with the purpose of formative assessment strategies used by teachers. In a culture of assessment, teachers are expected to implement AFL to make decisions about instruction, understand the learning of individual students, and meet students' individual needs in learning the curriculum expectations (Jang & Sinclair, 2018). Within a culture of assessment, teachers retain autonomy as they are agential in how they use data to shift their practices as needed in their classrooms (Jang & Sinclair, 2018). In contrast, a culture of accountability, such as is born out of large-scale assessments, aims to capture data about student learning to influence top-down policy implementation and Ministry and board-wide mandates (Jang & Sinclair, 2018). Given that teachers' assessment practices are greatly influenced by external mandates, it is no wonder that a conflicting range of perspectives and practices surrounding assessment can be found across Ontario classrooms. In response, Jang and Sinclair (2018) advocate for more opportunities for Ontario teachers to develop assessment competence, with special emphasis on AFL strategies so that they can gather concrete evidence of learning and form professional judgements about student learning, progress, and achievement.

As mentioned previously, research on formative assessments or AFL has clearly shown that these forms of assessment can help student learning. These formative assessment practices also contribute to metacognition and identity development, because they "involve students in activities to internalize the criteria for judging quality work, take responsibility for evaluating and seeking to improve their own work, and in so doing take on the role of disciplinary expert" (Shepard & Penuel 2018, p. 28). How does AFL fit with teachers' requirement to use evaluative strategies for assessment of learning (AOL), including grading? Shepard and Penuel (2018)

emphasize that formative assessments and AFL should not be scored or graded if they are to make a positive contribution to student learning. Indeed, they argue that grading, more than any other single factor, tends to undermine the good intentions of formative assessment. I delve into this conundrum in the next section.

Grading and Equity

Unlike AFL strategies that are rooted in research, evaluation and grading stem from historical practices. The practice of assigning grades to student learning dates back to the industrialization of manufacturing in North America, when full-time schools were established to meet the high demand for workers (Feldman, 2018). A system of grading was designed to stream students by their perceived intelligence, putting them on trajectories into different sectors of the workforce; as Feldman (2019) suggests,

> Just as manufacturing sought to increase production and maximize value, our schools were charged with sorting students into academic tracks that best reflected their supposedly fixed intellectual capacity and prepared them for their assumed life trajectories. In most cases, this sorting, facilitated by the introduction of the A-F scale, was used to justify and to provide unequal educational opportunities based on a student's race or class. (p. 53)

Now, there is a much more commonly held sentiment that education is the great equalizer, and that any student, no matter their background or identity, may achieve academic success if they work hard. Our grading practices undermine this idea, however. As Feldman (2019) astutely argues,

> We believe that every student can meet challenging academic standards, and we want our classrooms to interrupt the cycle of disparities that allows us to predict students' success

based on their race, resources, and native language. To promote equity, we implement restorative justice discipline policies, learn culturally responsive instructional strategies, teach more diverse authors and perspectives, and expand our repertoire of assignments and assessments to address the different ways students learn. Yet our grading system remains virtually unchanged. (p. 53)

Despite striving for every student to succeed academically, grades are still relied on to summarize and communicate “to parents, other teachers, employers, institutions of further education, and students themselves what students know and can do with respect to the overall curriculum expectations” (Ministry of Education 2010, p. 38). This reflects a standards-based approach to evaluation, where grades are reflective of how well students achieve a predetermined set of standards (that are referenced in the Ontario curriculum as expectations). Through this use of standards-based evaluation, student grades hold a tremendous amount of consequence over a student’s trajectory, determining whether or not a student is put into special education, what courses a student is able to take at the secondary level, or whether or not a student is deemed capable of attending post-secondary education.

Although there is a common belief amongst educators that students earn the grades that they achieve, research has shown that grades are often guided by the personal biases and beliefs of educators about what motivates students, what students should be learning, and how they should demonstrate their learning (Feldman, 2018). Writing about the United States, Feldman (2018) shows that grading practices are very rarely openly taught and discussed in teacher education programs or in professional contexts, leaving most teachers’ grading practices validated by little but a vague sense that students seem to be getting the grades they deserve. In the absence of evidence-based education about grading, many teachers rely on grading practices

that their colleagues use or that they experienced as students themselves, strongly reinforcing the hegemony of traditional grading schemes and inertia when it comes to reforming grading practices (Feldman, 2018). These are issues here in Canada too, as illustrated in Jang and Sinclair's (2018) research in the Ontario context.

Many traditional grading practices also reflect the belief that grades motivate students to learn. Educators argue that without the extrinsic motivator of grades, students have little intrinsic motivation to learn anything new (Feldman, 2018). But educational psychology research has shown that, in studies with students from elementary school to college, grading diminishes student interest in whatever they are learning, creating instead a preference for the easiest possible task and reducing the quality of students' thinking (Feldman 2018; Kohn 2012; Shepard & Penuel, 2018). Indeed, traditional grading schemes that award points to students for getting the right answer or for exhibiting a certain behaviour have been shown to take away the emphasis on learning, replacing it with a focus on achieving points (Feldman 2018; Kohn 2012; Shepard & Penuel, 2018). Further, students are penalized for taking risks and making mistakes and become so focused on the commodity of grades that some turn to habits such as cheating rather than learning and exploring the content themselves (Feldman 2018; Kohn 2012).

Educators' use of evaluation and grading practices also encourage specific behaviours from students that is disconnected from demonstrating content learning (Feldman, 2018). Think here of how arriving late to class is often punished through grading practices, regardless of the reasons that might underlie tardiness. Another example is the focus on self-control and self-discipline in schools, which can be detrimental to students' overall psychological health (Kohn, 2008). The celebration of self-discipline above all else is connected to a conservative worldview, including beliefs that individual behaviour and obedience to authority are what

determine success and that individual success must be earned through competition (Kohn, 2008). This latter belief creates a system in education where some may succeed/win, but only because others have failed/lost, which runs counter to the other widespread belief that education is the great equalizer. Nonetheless, emphasizing compliant and competitive behaviours in evaluation schemes goes relatively unchallenged in schools.

Similarly, many grading practices such as homework completion are employed with little thought about equity. For example, grading students' homework ignores the fact that not all students have a safe environment to complete schoolwork at home, or that some students have out-of-school responsibilities such as childcare or employment (Feldman, 2018). When educators evaluate students on behaviours such as participation, organization, note-taking, completing homework, or self-control, they are effectively teaching students that they must conform to a prescribed way of learning in order to succeed, regardless of whether those behaviours help that individual student to learn the content or not (Feldman, 2018).

Connecting to education for social justice, it is important that educators reflect on their biases and beliefs about what students should be learning, and how they should demonstrate their learning (Feldman, 2018). Steinhauer et al. (2020) gathered Indigenous academics, educators, and allies to examine the ways that evaluation practices in an Aboriginal teacher education program act as barriers to decolonizing, Indigenizing, and reconciliation efforts. Through listening circles and ceremony, a theme that emerged was how assessment and evaluation practices are infused with assumptions, beliefs, and practices about "whose knowledge counts, what counts as knowledge, how knowledge counts, and how knowledge has to be represented in order to count" (Steinhauer et al., 2020, p. 77). Several Indigenous educators shared their experiences of schooling and how assessment and evaluation did not honour their individual

gifts, nor did it acknowledge or honour their relationality with other beings (Steinhauer et al., 2020).

Steinhauer et al. (2020) suggest that critically exploring assessment and evaluation creates a space to challenge the under-examined colonial relations of power that create inequity and entrench divides in Indigenous-Canadian relations. With this important perspective in mind, the research that has been done around assessment and evaluation leave me with the following questions: What do current assessment and evaluation practices teach students about what they should be learning, and how they should demonstrate their learning? If assessment is meant to inform instruction, then what are appropriate methods of assessment and evaluation for land-based education, or instruction that involves incorporating Indigenous ways of knowing? Given how much influence assessment and evaluation practices have on student learning, there is a significant gap in our understanding of how educators can transform existing assessment and evaluation practices to align with environmental and social justice education.

Assessment and Evaluation in Ontario Schools

In Ontario, educators are bound by assessment and evaluation practices that follow *Growing Success*, the Ministry of Education (2010) document on assessment, evaluation, and reporting. The Ontario Ministry of Education (2022) website says, "successful implementation of this policy depends on the professional judgement of educators at all levels as well as on their ability to work together and to build trust and confidence among parents and students" (para. 1). The Ministry of Education (2010) defines professional judgement as:

> Judgement that is informed by professional knowledge of curriculum expectations, context, evidence of learning, methods of instruction and assessment, and the criteria and standards that indicate success in student learning. In professional practice, judgement

involves a purposeful and systematic thinking process that evolves in terms of accuracy and insight with ongoing reflection and self-correction. (p. 152)

Growing Success reflects Ontario's effort to balance formative and summative assessment, emphasizing a commitment to support student's educational growth with reference to common standards (Jang & Sinclair, 2018). It also recognizes the importance of student autonomy for self-regulating their own learning through AAL practices (DeLuca & Volante, 2016; Jang & Sinclair, 2018). Despite the policy's emphasis on professional judgement, as previously mentioned, not all teachers enter the teaching profession with adequate knowledge about classroom assessment nor do they have many opportunities for professional development in this area (Jang & Sinclair, 2018). In addition to this lack of professional development, *Growing Success* has been criticized for including contradictory perspectives on the purpose of assessment in Ontario schools.

MacAlpine (2017) examined the *Kindergarten Appendum* to the *Growing Success* document, and much of their analysis applies to what governs grades 1-12 as well. She found that *Growing Success* displays a struggle between two dominant perspectives, thus making it possible for a wide variety of interpretations of how to implement the document. For example, MacAlpine (2017) outlines how parts of the document reflect a perspective in which students are co-participants actively involved in the learning process while other parts reflect the perspective that students are passive participants who should be directed towards learning goals that have been predetermined. She concludes that it is difficult to reconcile the focus on AFL and AAL and uses of terms like "learner driven" with objectives that are set prior to learning in the form of expectations. MacAlpine (2017) also points out that how the document describes AFL and AAL strategies that could be implemented, such as the use of descriptive feedback, remain clearly

directed towards how a student must meet the Ministry's preassigned outcomes and goals. In this way the document seems to straddle two different perspectives on how learning occurs (MacAlpine, 2017).

Although *Growing Success* is intended to ensure that assessment, evaluation, and reporting is clear, consistent, and well aligned across panels, school boards, and schools, it does not offer a detailed or prescribed formula for classroom assessment practices in Ontario. As I am interested in how assessment and evaluation might align with environmental and social justice education, in the following sections I will consider how the equitable grading practices put forth by Feldman (2018), a US-based former teacher and administrator who now consults on equitable grading, may or may not be compatible with the Ontario Ministry of Education (2010)'s *Growing Success*. Feldman (2018) recommends grading practices align with three pillars of equitable grading practices: accuracy, bias-resistance, and motivation.

Accuracy in Grading

For grading to be a mathematically accurate reflection of a student's knowledge and learning, educators should avoid giving zeros, use minimum grading and a 4 Level scale, weight most recent achievement, and avoid giving marks for group work (Feldman, 2018). If grades are averaged over time, then giving zeros for incomplete work makes it extremely challenging for students to come back from early underachievement and still do well in a course. When schools use a grading system that describes students as failures, it means that those who are the farthest behind and have to work the hardest to succeed end up having the least incentive to do so (Feldman, 2018).

The Ministry of Education (2010) in Ontario has already adopted a system of minimum grading and the 4 Level scale, with Level 1 equating to 50-59%, not 0-50%. This works in the

same way as eliminating zeros and it makes it possible for students achieving below standard to improve towards a passing grade over a course of learning. However, whether or not a teacher gives a zero for a missed assignment, or assigns a mark under 50% as a student's final grade, is left up to their professional judgement except in the scenario where their school board has an internal policy against the practice (Ministry of Education, 2010). In terms of weighting most recent achievement, the Ministry of Education (2010) says, "determining a report card grade will involve teachers' professional judgement and interpretation of evidence and should reflect the student's most consistent level of achievement, with special consideration given to more recent evidence" (p. 39). How educators interpret this statement could mean that they either choose to grade based on the most consistent level of achievement over a term or choose to grade based on most recent evidence.

Bias-resistant Grading

For grading practices to be bias-resistant, they must prioritize knowledge and not behavioural factors (Feldman, 2018). Grades should therefore: be reflective of required course content, not extra credit; be based on student work, not the timing of the work; exclude effort and participation; and be based on summative assessments, not formative assessments (Feldman, 2018). Grades in Ontario are supposed to reflect students' mastery over course content, but the reality is that it is common practice for educators to give marks for class behaviours, such as being on time to class, working well with others, and remaining focused during class time. The Ministry of Education (2010) has removed "learning skills and work habits" from being included in student grades, but teachers are still required to report, separately from grades, on students' responsibility, organization, independent work, collaboration, initiative, and self-regulation.

Excluding extra credit and formative assessments from grading are ways that educators can prevent punishing students who are already falling behind (Feldman, 2018; Shepard & Penuel, 2018). Educators sometimes use extra credit as a motivator to get students to accomplish optional tasks, but often the students who are not able to access those extra credit learning opportunities are the ones who are already behind in the regular content (Feldman, 2018). Grading formative assessments also rewards students who start the course with solid previous knowledge. Formative assessments are meant to help teachers gather information about where students are in their understanding in order to shape future instruction (Ministry of Education, 2010). If grades are meant to reflect *knowledge,* then students who start the course with little previous knowledge but end with total mastery over the content should end a course with the same grade as a student who entered a course with mastery and ended with mastery (Feldman, 2018). The reality, however, is that often teachers consider grades from throughout the course of learning, including formative assessments that reflect a student's knowledge before they have had a chance to master the content (Feldman, 2018).

Deducting points from late assignments is another grading technique that many teachers use to punish behaviour, even if the work completed reflects mastery of the content. The Ministry of Education (2010) provides a list of 16 potential strategies that educators may use to support students who are struggling to hand in assignments on time, but then states that teachers can "deduct marks for late assignments, up to and including the full value of the assignment" (p. 43). Although the provision of 16 alternatives, including "understanding and taking into account the cultures, histories, and contexts of First Nation, Métis, and Inuit students and parents and their previous experiences with the school system" (p. 43), suggests that the most equitable

approach would be to not deduct marks for late assignments, the policy on grading leaves that entirely up to teacher choice.

Motivational Grading

For grading practices to be motivational for students and encourage a growth mindset, they must "lift the veil" by being transparent about how students can succeed (Feldman, 2018, p. 183). The Ministry of Education (2010) promotes the use of an achievement chart, which is a rubric that alters slightly for each subject area, but includes assessment of knowledge/understanding, thinking, communication, and application. These categories are based on Bloom's taxonomy and reflect the belief that all student learning can be simplified and quantified into these four categories (Dubé, 2009). Although the use of rubrics and success criteria (statements about what students should do to succeed, written in student language) create the illusion that grading in Ontario is transparent, rubrics are only used for evaluation of student products. Grades, on the other hand, are based on the teacher's professional judgement based on evidence collected over time from student products, observations, and conversations (Ministry of Education, 2010). Further, although the Ministry of Education (2010) encourages students to use practices of self-assessment by monitoring and evaluating their own learning, "the evaluation of student learning is the responsibility of the teacher and must not include the judgement of the student or of the student's peers" (p. 39).

These examples show that there are many contradictions between theory and practice of assessment and evaluation in Ontario, and alignment with Feldman's pillars (2018) is spotty. The Ministry says that we want students to take control over their learning, but their judgement on their own level of learning and understanding cannot be included in their grade. We use rubrics to make clear the expectations, but every teacher has different expectations about student

behaviour and what gets included in a grade. If we hope to lift the veil on how students are to succeed, then much more work needs to be done to better educate teachers on appropriate practices of assessment and evaluation.

So, how might the research on assessment and evaluation come together with environmental and social justice education in Ontario schools? That is the driving question that informed the development of my guide to critical assessment and my infographic that follows, and it is a question I will revisit in the final chapter of my portfolio.

Conclusion

This literature review makes clear that more work is needed to understand how assessment and evaluation practices could support transformative education that seeks a more just world. Steen (2003) argues that the current system of public education is built on a mechanistic worldview that focuses on understanding through compartmentalization and using an empirical or objectivist approach to make sense of isolated information. He argues that the daily realities of a mechanistic system of schooling cannot effectively address the holistic themes of ecological systems such as networks, systems, flows, relationships, wholeness, reciprocity, and synergy. Similarly, Jickling and Wals (2008) comment on the purpose of education:

> If social reproduction is the inherent expectation, then citizens should work efficiently within existing frameworks. Taking this view of the "educated" citizen, we expect to see individuals well prepared to accept their role within society and the workforce. They are obedient, deferential, and compliant as they take their place within hierarchical and authoritative social structures and power relationships. From this vantage point, individuals are content to participate in democratic processes at electoral intervals while daily choices are made by decision-makers and their supporting bureaucracies. (p. 8)

If we hope to build an educational system that does more than reproduce obedient, deferential, and compliant citizens, I argue that more work needs to be done in the area of assessment and evaluation. If enabling social transformation is an inherent expectation of education, a position social justice and environmental educators take, then the outcome presumably would be educated citizens who are active participants in ongoing decision-making processes within their communities (Jickling & Wals, 2008). These citizens would work to break down barriers associated with classism, racism, colonization, and other oppressive systems that keep reproducing an inequitable society that has destructive impacts on the more-than-human world and on planetary health (Jickling & Wals, 2008). It is clear from what we know about the impact of assessment and evaluation on student learning that environmental and social justice pedagogy can only go so far in a system where assessment and evaluation works for social reproduction. What is needed are assessment and evaluation practices that work towards social transformation, and I hope the remaining chapters in my portfolio might contribute to that.

Chapter 3: Guide to Critical Assessment

This chapter aims to provide a guide to critical assessment for secondary teachers in the province of Ontario. Considering that each individual high school course differs in the subject content being explored, the students in the room from year to year, and the specific connections between curriculum and the local places where the courses are taught, I cannot provide specific assessments that teachers may copy and paste for use in their classrooms. And, indeed, a universalized "recipe" approach is critiqued by those inspired by critical pedagogy given the importance of context. Instead, here I seek to provide a simple framework for other teachers who also want to be transformative educators and want to design methods of instruction and assessment that better align with that approach.

To begin, it is important to remember that critical environmental pedagogy attempts to connect students to the places they live. Therefore, everything from the problems that students work on solving, to the products that students create to demonstrate their learning, will differ across time and place. In addition, the nature of instruction and assessment are tied to how individual teachers foster relationships with their students as well as the subject area of the course and the interests of the students in the class. A key element of any authentic assessment is the opportunity for students to help design assessments as well as reflect on and understand their purposes (Kohn, 2012). If students are included in the creation of assessments and if assessments are meant to reflect the learning of place-specific curriculum, then there is little use in developing recipes for specific assessments for teacher use. What I present here then, is a guide to assessment and evaluation that may support critical transformative pedagogy and instruction.

Secondary teachers in Ontario assessment and evaluation practices are currently governed by the Ministry of Education's 2010 document *Growing Success.* Considering this guide is

intended to be of immediate use to practicing teachers in Ontario, the framework and practices I suggest here are thus situated within the bounds of *Growing Success.* As noted in previous chapters of this portfolio, *Growing Success* is far from a perfect policy on assessment and evaluation, and educators should continue to remain critical of educational policy and the worldview it may uphold or reproduce. However, *Growing Success* is also not entirely restrictive to practicing teachers who wish to educate for social transformation, and this chapter hopes to show how it can be used in this way.

This guide to critical assessment explores three concepts that secondary teachers in Ontario can practice in their classrooms to do right by their students and foster critical environmental learning: 1) remove the emphasis on grades; 2) focus on feedback; and 3) be intentional in what is assessed. I discuss each in more detail below.

Removing the Emphasis on Grades

As I discussed in the previous chapter, it is clear from the research on assessment and evaluation that grading is detrimental to the quality, depth, and speed of student learning. However, currently teachers in Ontario are required to evaluate student learning and performance by reporting grades (Ministry of Education, 2010). At the secondary level, at minimum a grade is typically required to be reported to students and their guardians halfway through the semester (as a midterm or in-progress grade), and at the end of the term (as a final grade). The Ministry of Education (2010) says that teachers are expected to use the performance standards outlined in the achievement chart (that appears in the curriculum document of every subject) as a framework within which to assess and evaluate student achievement of the expectations in any subject or discipline. While that may appear at first to be a prescriptive guide on how teachers in Ontario

must evaluate student learning, further examination of the achievement chart allows us to see otherwise (see Figure 1).

Figure 1

The Achievement Chart: English, Grades 9-12

Categories	50–59% (Level 1)	60–69% (Level 2)	70–79% (Level 3)	80–100% (Level 4)
Knowledge and Understanding – Subject-specific content acquired in each course (knowledge), and the comprehension of its meaning and significance (understanding)				
	The student:			
Knowledge of content *(e.g., forms of text; strategies used when listening and speaking, reading, writing, and viewing and representing; elements of style; literary terminology, concepts, and theories; language conventions)*	demonstrates limited knowledge of content	demonstrates some knowledge of content	demonstrates considerable knowledge of content	demonstrates thorough knowledge of content
Understanding of content *(e.g., concepts; ideas; opinions; relationships among facts, ideas, concepts, themes)*	demonstrates limited understanding of content	demonstrates some understanding of content	demonstrates considerable understanding of content	demonstrates thorough understanding of content
Thinking – The use of critical and creative thinking skills and/or processes				
	The student:			
Use of planning skills *(e.g., generating ideas, gathering information, focusing research, organizing information)*	uses planning skills with limited effectiveness	uses planning skills with some effectiveness	uses planning skills with considerable effectiveness	uses planning skills with a high degree of effectiveness
Use of processing skills *(e.g., drawing inferences, interpreting, analysing, synthesizing, evaluating)*	uses processing skills with limited effectiveness	uses processing skills with some effectiveness	uses processing skills with considerable effectiveness	uses processing skills with a high degree of effectiveness
Use of critical/creative thinking processes *(e.g., oral discourse, research, critical analysis, critical literacy, metacognition, creative process)*	uses critical/creative thinking processes with limited effectiveness	uses critical/creative thinking processes with some effectiveness	uses critical/creative thinking processes with considerable effectiveness	uses critical/creative thinking processes with a high degree of effectiveness

Categories	50–59% (Level 1)	60–69% (Level 2)	70–79% (Level 3)	80–100% (Level 4)
Communication – The conveying of meaning through various forms				
	The student:			
Expression and organization of ideas and information *(e.g., clear expression, logical organization)* **in oral, graphic, and written forms, including media forms**	expresses and organizes ideas and information with limited effectiveness	expresses and organizes ideas and information with some effectiveness	expresses and organizes ideas and information with considerable effectiveness	expresses and organizes ideas and information with a high degree of effectiveness
Communication for different audiences and purposes *(e.g., use of appropriate style, voice, point of view)* **in oral, graphic, and written forms, including media forms**	communicates for different audiences and purposes with limited effectiveness	communicates for different audiences and purposes with some effectiveness	communicates for different audiences and purposes with considerable effectiveness	communicates for different audiences and purposes with a high degree of effectiveness
Use of conventions *(e.g., grammar, spelling, punctuation, usage)***, vocabulary, and terminology of the discipline in oral, graphic, and written forms, including media forms**	uses conventions, vocabulary, and terminology of the discipline with limited effectiveness	uses conventions, vocabulary, and terminology of the discipline with some effectiveness	uses conventions, vocabulary, and terminology of the discipline with considerable effectiveness	uses conventions, vocabulary, and terminology of the discipline with a high degree of effectiveness
Application – The use of knowledge and skills to make connections within and between various contexts				
	The student:			
Application of knowledge and skills *(e.g., literacy strategies and processes; literary terminology, concepts, and theories)* **in familiar contexts**	applies knowledge and skills in familiar contexts with limited effectiveness	applies knowledge and skills in familiar contexts with some effectiveness	applies knowledge and skills in familiar contexts with considerable effectiveness	applies knowledge and skills in familiar contexts with a high degree of effectiveness
Transfer of knowledge and skills *(e.g., literacy strategies and processes; literary terminology, concepts, and theories)* **to new contexts**	transfers knowledge and skills to new contexts with limited effectiveness	transfers knowledge and skills to new contexts with some effectiveness	transfers knowledge and skills to new contexts with considerable effectiveness	transfers knowledge and skills to new contexts with a high degree of effectiveness
Making connections within and between various contexts *(e.g., between the text and personal knowledge and experience, other texts, and the world*	makes connections within and between various contexts with limited effectiveness	makes connections within and between various contexts with some effectiveness	makes connections within and between various contexts with considerable effectiveness	makes connections within and between various contexts with a high degree of effectiveness

Note: From Ministry of Education, 2010, p. 24

Both the content standards (found in the subject specific curriculum) and the performance standards (found in the achievement chart) in Ontario are, for the most part, broad and open to

multiple interpretations. As we can see in examining Figure 1, the achievement chart uses broad descriptors, such as “demonstrates considerable knowledge of content” for a Level 3, compared to “demonstrates some knowledge of content” for a Level 2 (Ministry of Education, 2010, p. 24). Therefore, it is possible that one teacher may assess student knowledge and understanding of an overall expectation by creating and then marking a test, whereas another teacher may use an ungraded assignment or project with descriptive feedback to assess the same thing. As long as teachers are providing a variety of assessments that give students the opportunity to show their learning across the different categories of learning, the Ministry of Education (2010) does not say that all assessments must be graded in order for teachers to gather evidence about student learning.

The Ministry of Education (2010) is highly encouraging of assessment for learning (AFL) and assessment as learning (AAL), both of which are *not* to be graded if they are to be effective for learning (Shepard & Penuel, 2018). So, if teachers are not grading student work leading up to the mandatory reporting periods, how are they to calculate midterm and final grades? According to the Ministry of Education (2010), evidence of student achievement for evaluation should be collected over time from three different sources: observations, conversations, and student products. Student products may include tasks such as assignments, rich performance tasks, demonstrations, projects, and/or essays (Ministry of Education, 2010). The Ministry of Education (2010) does not dictate how teachers must record their observations, conversations, and evaluations of student products or how these three sources should be calculated together to produce a final grade. Rather, the Ministry of Education (2010) states that “determining a report card grade will involve teachers’ professional judgement and interpretation of evidence and

should reflect the student's most consistent level of achievement, with special consideration given to more recent evidence" (p. 39).

Teachers thus can make observations, have conversations with students, and document the learning presented by student products without assigning grades to those products in the process. Through these observations, conversations, and feedback on student products, teachers can involve students in the process of producing a mid-term or final grade by either negotiating the grade or having students grade themselves. Perhaps the most restrictive and puzzling statement from the Ministry of Education (2010) is "the evaluation of student learning is the responsibility of the teacher and must not include the judgement of the student or of the student's peers" (p. 39). This statement is puzzling because in several other places in the document, the Ministry of Education (2010) encourages the use of self and peer assessments to aid in student learning. However, teachers may operate around this statement by negotiating final grades with students. Students may complete written or conversational self-assessments based on a review of the products they have submitted over a course of learning. Teachers may then use their professional judgement to determine the final grade, using the student's self-assessment as a product, observation, conversation, or evidence from all three.

An important point about self-assessment, taken from Kohn (2012), is that a key element of authentic assessment is the opportunity for students to help in designing assessment as well as reflecting on its purposes. This is notably different from types of self-assessment in which students monitor their progress toward the teacher's or legislature's goals and then reduce their learning to numerical ratings with grade-like rubrics (Kohn, 2012). Unfortunately, grades in Ontario are supposed to reflect the students' achievement of curriculum expectations and require reducing student learning to the performance standards outlined in the achievement chart for

each subject (Ministry of Education, 2010). Although truly authentic assessment thus may be out of reach under *Growing Success*, teachers can at least be transparent with their students about the performance standards and curriculum expectations that force their hands, and have students participate in reflection on their learning through self-assessment and negotiation to help determine their grade.

Focus on Feedback

In place of grades, teachers can offer students descriptive, qualitative feedback on their work throughout the course. Descriptive feedback helps students learn by providing them with precise information about what they are doing well, what needs improvement, and what specific steps they can take to improve (Ministry of Education, 2010). The Ministry of Education (2010) says that multiple opportunities for feedback and follow-up should be planned during instruction to allow students to improve their learning *prior* to being evaluated on their learning. The focus of this feedback and follow-up process should be to encourage students to produce their best work by improving upon previous work, as well as teaching them the language and skills associated with assessment so that they are able to assess their own learning (Ministry of Education, 2010).

A focus on feedback can be combined with reducing the emphasis on grades, enabling a two-pronged approach to encourage student learning. As teachers spend less time grading assignments, quizzes, and tests, in theory they can dedicate more time to giving students either written or oral descriptive feedback. However, it is important to acknowledge that Ontario secondary teachers are often responsible for assessing upwards of 90 students per term, depending on the subjects they teach. Providing meaningful, descriptive, and ongoing feedback to students does, in the end, take *more* teacher time than other forms of evaluation such as

marking a multiple-choice test. Reducing the emphasis on grades and providing students with descriptive feedback does not address the wider problem of the growing demands on teachers that seem to escalate year after year. While out of the control of individual teachers, working together to continue lobbying for a reduction in class sizes would create the conditions whereby teachers would have more time to provide better and more frequent feedback as well as space for higher quality instruction that would improve student learning generally. In the meantime, teachers should be strategic about how feedback is delivered to students, so that it does not significantly add to their already overburdened workload. Ongoing feedback during class activities, targeted regular feedback to those students who may be struggling, modifying instruction so that there is class time available for conferencing with students, and using student self-assessments are some of the ways that teachers can focus on feedback without adding hours of writing descriptive feedback to their workloads.

The Ministry of Education (2010) suggests that teachers and students should share a common understanding of what it is that students should learn (found in the curriculum expectations) as well as what they need to be able to do in order to be successful (found in the achievement chart). Teachers should create and regularly communicate learning goals, which are essentially the expectations from the curriculum translated into student-friendly language (Ministry of Education, 2010). Teachers should also create and then regularly communicate to students success criteria, which are the specific terms about what successful attainment of the learning goals looks like (Ministry of Education, 2010). The purpose of providing feedback, then, is to reduce the gap between a student's current level of knowledge and skills and the learning goals that are created (Ministry of Education, 2010). These practices are aimed at making what success looks like more transparent for students. Of course, including students in

the process of identifying criteria for what success looks like is key if we hope to encourage students to be autonomous future learners.

Choosing What to Assess and Evaluate

The Ministry of Education (2010) outlines that for grades 1 to 12, all curriculum expectations must be accounted for in instruction and assessment, whereas evaluation focuses on students' achievement of the overall expectations:

> A student's achievement of the overall expectations is evaluated on the basis of his or her achievement of related specific expectations. The overall expectations are broad in nature, and the specific expectations define the particular content or scope of the knowledge and skills referred to in the overall expectations. Teachers will use their professional judgement to determine which specific expectations should be used to evaluate achievement of the overall expectations, and which ones will be accounted for in instruction and assessment but not necessarily evaluated. (p. 38)

When grading is used, students interpret work that is graded as being reflective of what *counts* most; that is, what is important for them to learn, whether or not they agree with the relative importance of learning it. When the emphasis is taken off grades, however, and put on descriptive and ongoing feedback, it opens the door for students to participate in decisions about what content is the most important or most interesting to them. Teachers can use their professional judgement, taking into account and even centering student voice, to determine what specific expectations should be used to evaluate achievement of the overall expectations.

Although the Ontario curriculum expectations dictate what is to be taught in each subject area and course, the overall and specific expectations are often broad enough that they provide teachers with many possibilities to differentiate the type of instruction, the topics covered, the

perspectives included, and the skills being assessed. While the Ontario curriculum requires updating if it is to encourage transformative education for a more socially and ecologically just world, in the meantime educators can prioritize and highlight specific and overall expectations in their assessments that align with environmental and social justice education. Kwauk and Casey's (2021) "green skills framework" offers one tool that could help teachers align their assessment with social justice and environmental education (see Figure 2).

Figure 2

A Green Skills Framework

Note: From Kwauk and Casey (2021, p. 7).

Kwauk and Casey (2021) argue that what transpired in the year 2020 made clear the need for a revitalized role for education. They highlight the growing public awareness of the climate crisis, thanks in part to youth activists and student-led strikes for climate around the world, as well as the growing recognition that the window for transformative change grows smaller every year. The global COVID-19 pandemic also caused unprecedented school disruptions that laid bare how existing inequalities within education systems are exacerbated in times of crisis (Kwauk & Casey, 2021). School disruptions caused by COVID-19 are only a taste of what is to come as the climate crisis makes extreme weather events and zoonotic disease transfer more regular occurrences (Kwauk & Casey, 2021). In response, Kwauk and Casey (2021) provide a framework (illustrated in Figure 2) to help align the educational system with the goal of seeding the rapid and radical transformation of social and economic systems needed for wide scale climate action.

Although the green skills framework was written for climate educators and education decision-makers, teachers may nonetheless find it helpful as a framework for what kind of skills, knowledge, and capacities our education system should be providing to young people today. By creating assessments that connect to skills for green jobs, green life skills, and skills for a green transformation (Kwauk & Casey, 2021), teachers can use assessment to further critical environmental learning. Of course, as mentioned previously, teachers in Ontario are still beholden to assessing students on their understanding of the curriculum expectations. The green skills framework then, can help teachers to reflect on what skills are represented by their own assessments in their subject specific courses. For example, do the assessments provide students with the opportunity to use creativity, collaborative thinking, leadership, and/or critical thinking

and reasoning? What about interdisciplinary thinking, reflexivity, working within complexity, or analyzing unequal systems of power?

The ‘skills for green jobs’ laid out by Kwauk and Casey (2021) are the most likely to be already present in the Ontario curriculum, as they are focused on equipping students with the skills needed for the green jobs of the future. The ‘skills for a green transformation’, however, are not merely about job training but are instead aimed at transforming unjust social and economic systems (Kwauk & Casey, 2021) and are therefore less likely to be present in the overall and specific expectations of the Ontario curriculum. When designing assessments, teachers may then find it useful to reference the framework and reflect on what kinds of skills are represented in the learning opportunities they provide to their own students and what they could do to better align with transformative education. By reflecting on the types of assignments, projects, or activities we as teachers choose to assess, we can work to ensure our teaching puts emphasis on environmental and social justice education for social transformation.

Conclusion

Although teachers are beholden to the educational policies of their provinces or districts, they are also constantly learning, growing, and adapting how they operate within their classrooms and there is flexibility for them to enact those policies in ways that are better for their students and the planet. This chapter aimed to suggest a framework for how Ontario teachers can work within the Ministry of Education’s policy of assessment and evaluation to better support student learning and foster transformative education. Knowing that grades interfere with meaningful student learning, and that teachers in Ontario are required to report grades for their students, I suggest that teachers work to reduce the emphasis on grades in their classes. Knowing that descriptive feedback helps students both in their understanding and in becoming autonomous

learners, I encourage teachers to focus on feedback in assessment. Finally, knowing that what teachers choose to assess holds weight, I suggest that teachers use the transformative skills listed by Kwauk and Casey (2021) as a guide to ensure their assessments better align with transformative education. Although what I am offering here is by no means a conclusive recipe for fixing assessment and evaluation in Ontario schools, it is hopefully a place to start for practising teachers who wish to better support their students in environmental and social justice education.

Chapter 4: Infographic: Critical Assessment for Transformative Education

The following infographic is meant to provide a succinct summary of the academic research that I have discussed in this portfolio and provide the justification teachers might use in discussing why they are striving for more transformative assessment and evaluation practices in their Ontario classrooms. Recognizing that teachers who choose to use my guide to critical assessment will find themselves challenging the more traditional practices frequently used in schools, and honouring the reality of teacher and administrator time constraints, I hope the infographic may be a more accessible entry point for teachers or administrators who want to understand what is meant by critical assessment for transformative education. Of course, a one-page infographic cannot encapsulate or represent all the research and academic literature referenced in my portfolio, but it might light a spark for further inquiry.

CRITICAL ASSESSMENT FOR TRANSFORMATIVE EDUCATION

Purpose of Education

According to critical scholars in the fields of environmental and social justice education, the purpose of education is to enhance the critical consciousness of individuals so that they can better our world through democratic processes.

An "educated" citizen is one who actively participates in ongoing decision-making processes within their communities and works to break down barriers associated with classism, racism, colonization, and other oppressive systems that keep reproducing an inequitable society that has destructive impacts on planetary health.

How Does Learning Happen?

Teaching in schools is moving away from a model based on the transmission of information in one direction – from teacher to student – and towards a reciprocal model that ensures students are listened to, valued, respected for who they are and what they already know, and recognized as partners in their education (Ministry of Education, 2013).

Greater student involvement in their own learning and learning choices leads to **greater student engagement** and **improved achievement** (Ministry of Education, 2013).

Role of the Teacher

- Presenting opportunities for experience
- Helping students utilize these experiences
- Establishing a safe, inclusive, and culturally appropriate learning environment
- Placing boundaries on the learning objectives
- Sharing necessary information
- Facilitating learning

Purpose of Assessment

The purpose of assessment is to improve student learning (Ministry of Education, 2010)

Research on the impact of **assessment for** and **as learning** indicates that consistent utilization of formative strategies such as questioning techniques, feedback *without* grades, peer assessment, and self-assessment can **double** the speed of student learning, support students who are struggling academically, and contribute to metacognition and identity development (DeLuca & Volante, 2016).

Research emphasizes that assessments for learning should **not be scored or graded** if they are to make a positive contribution to student learning. In fact, research shows that grading, more than any other single factor, tends to undermine the benefits of formative assessment to student learning (Shepard & Penuel, 2018).

Research on Evaluation

Although there is a common belief amongst educators that students *earn* the grades that they achieve, research has shown that grades are often guided by the **personal biases and beliefs** of educators about what **motivates** students, what students **should** be learning, and **how** they should demonstrate their learning (Feldman, 2018).

Assessment and evaluation practices are infused with assumptions and beliefs about whose knowledge counts, what counts as knowledge, how knowledge counts, and how knowledge has to be represented in order to count (Steinhauer et al., 2020)

Research with elementary to college-aged students has shown that grading:

- diminishes student interest in whatever they are learning
- creates a preference for the easiest possible task
- reduces the quality of student thinking

What teachers choose to **evaluate** is what is communicated to students as being the **most important** content, and often that content is not aligned with social justice and environmental education.

Traditional approaches to assessment and evaluation reproduce an inequitable status quo. What is needed are assessment and evaluation practices that work towards social transformation.

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Chapter 5: Personal Reflection

As a kid, I was motivated to achieve high grades in school. I do not remember much about how I was socialized at school, but I came from a home led by two highly educated parents who emphasized the importance of education to me and my brothers. My parents were readers and I read voraciously as a kid, mostly fiction that would have been deemed above my grade level in school. For the most part, in elementary and high school it felt easy for me to achieve high grades. I had no reason to mistrust my teachers or to feel unsafe at school, something that I now know is a privilege that not all kids have. I also lived in a home that was a safe and encouraging space to complete homework and had parents who were able to be around to help me when I was stuck or did not understand what I was supposed to be learning.

I also had an older brother who I would describe as brilliant. In high school, he easily achieved 90's in the classes he found interesting but refused to submit work in the classes that did not capture his interests. He was defiant in the face of authority and refused to comply with adults and educators who tried to tell him what he should care about. Despite many arguments with my parents who tried to convince him otherwise, he ultimately did not graduate from high school, choosing instead to start working full-time at the site where he did a co-operative education placement. In the years following, he mastered the trades of bicycle mechanic, cooking, butchery, sourdough baking, and most recently, carpentry. He showed me early on that there were other ways to learn outside of school, and that the way to become an interesting person is to pursue the things that you find most interesting, not necessarily the things that other people tell you are most interesting. He showed me that you could be brilliantly smart, and still "fail out" of high school.

In my final year of high school, I took a creative writing class that I was extremely excited about. I loved to read and I thought that I might enjoy writing just as much. I was enthusiastic about the class and the assignments until I received my first mark back on a piece of writing. It was a low 70. I was used to achieving 90's, and so I viewed this grade as a failure. I was confused about why my work had been judged this way. What had I done wrong? What could I do better? My teacher gave me little feedback, other than this mark that communicated that my writing was just not very good. As the class went on, classmates of mine were getting much higher grades on work that was riddled with spelling and grammar errors, which only convinced me that my teacher was grading subjectively. I wanted to apply to university, and so I cared very much about my final grades as they would determine into which programs I would be accepted. I communicated these concerns to my teacher, who seemed unfazed and continued to give me mid-70 grades with little explanation on how I could improve my writing. These grades without feedback or suggestions for improvement made me feel my writing was inferior and that I was incapable of improving. I learned very little about how to be a better writer in that class, but I did learn a lot about how grades can stifle creativity, motivation, and a genuine desire to learn. I also started to question the legitimacy of grades. Without any kind of rubric, transparency, or feedback on why I was receiving the grades, I had to assume that my work was being graded based on my teacher's personal preferences.

For my undergraduate degree I attended McGill University, which required the highest marks for admission of any other Bachelor of Arts program in the country. Many of my professors were forthright in telling us at the beginning of a course that no matter how brilliant the minds in the room were, the class average at the end of term would be bell-curved to a B- (around a 60%). Several of my friends who had easily achieved 90's in high school, used to

being "over-achievers," were now struggling to get off academic probation and were extremely stressed about failing out of their programs. This approach to grading also fostered a high level of competition amongst students as we quickly understood that we might only achieve higher grades if others in the class did poorly. In a way I had been socialized to accept this type of competition, and the stress it caused, throughout my education. But as I learned more about the various injustices across the world, I started to reject this approach. I realized that no matter how hard I worked, my grades would not improve, and I became disillusioned with post-secondary education. I had to accept that I was not exceptional, let go of the standards I had been told to set for myself from a young age, and disassociate how I measured my learning from the grades I received. The only way I was able to do this was because I was so disillusioned with formal education; I thought there was little to no chance I would ever pursue a master's degree, so I was able to tell myself that the marks I received would not impact my future opportunities.

As I progressed through entry-level courses into the higher-level courses of my undergraduate degree, however, my marks started to improve significantly. This did not add up to me. If my marks in early courses suggested that I had an "average" understanding of basic concepts, how was it possible that all of a sudden, I had a high level of understanding of advanced concepts? I came to realize that what was changing was not my level of understanding but the ways in which my knowledge was being evaluated. Instead of just a midterm and final exam, I was demonstrating my learning through assignments where I could develop my thoughts and show my understanding of concepts, and sometimes even focus on topics that particularly interested me, rather than regurgitating facts on exams.

Ironically, I experienced one of the largest variances between my individual class grades in my Bachelor of Education degree, where one of the things I was supposed to be learning about

was how to assess and evaluate students. I found there to be tremendous cross-over in content between classes, yet with the same applied effort and level of understanding, I found myself getting consistent 70's in some courses and mid-90's in others. That reinforced to me that my marks do not always reflect my understanding and abilities, nor do they reflect my learning. For this reason, as a master's student, I have seized any opportunity to be graded alternatively or not at all. In the courses where I have been able to set a contract grade, receive descriptive feedback only, or assess my own learning, I have felt the weight of trying to meet someone else's standards lift, and I have learned so much more in its absence.

As an educator, in my very first professional placement during my Bachelor of Education, I taught a class of grade 9 students who had been streamed to enter the International Baccalaureate (IB) program in grade 10. These students were so visibly stressed about their marks that I worried about their well-being. They had been socialized to expect perfectionism from themselves and were distraught even when receiving grades that would have satisfied me when I was younger. The collective stress over achievement seemed to me to be obviously damaging them, and it distracted them from deeper learning that went beyond what was required to earn high grades.

Later, I taught in a completely different kind of classroom, a land-based program for Indigenous youth where I found it extremely challenging to get students to complete any kind of written product to demonstrate their learning. The pedagogy, content, and delivery of instruction was very intentional about meeting these students where they were at and connecting them to their culture. The program itself was successful in getting students who struggled with attendance to come more regularly and participate in class activities when they were there, but when it came to turning in any kind of product, I struggled to motivate students. One day I asked

two students if they could be honest with me about why they did not want to complete a creative writing assignment even though I knew they both were avid comic book readers and enjoyed writing. One student responded, "Why would I even try when I know that I am going to fail?". These students had internalized the grades they had received throughout their lives to mean that they were not capable of achievement even when the learning environment and tasks were entirely different and much more suited to their interests.

I have also worked as an outdoor educator, and I have seen many examples of the profound learning that happens outside of classrooms when students are free from constant measurement through grading. Because of these various experiences, I have come to believe that grades are not necessary to motivate students to learn. That said, now that I am teaching in secondary classrooms, I also can see more clearly how students have been socialized to systems of grading. I recognize that means removing an emphasis on grades will undoubtedly be met with resistance from some students. As someone who wants to be a transformative educator, I believe meeting this resistance head on is worth the effort required to overcome it, because ultimately the emphasis should be on learning rather than achievement. Further, helping students learn to identify, understand, and disrupt the inequitable systems in which they operate may help prevent some of them from becoming disillusioned with formal education in the way that I was.

Outside of my role as a student, and as an educator, I also am a human being who is deeply concerned about the futurity and stability of the ecological system of which we are a part. There are many things that we need if we are to successfully address the climate crisis, and perhaps most of all we need a collective of people who feel empowered to learn and that they can make a difference in the world. We need to learn new ways of being, new ways of doing, and new ways of living that are not built on the oppression of other people and the more-than-human

world. I know that I still have much to learn about teaching and learning, but it is clear to me from completing this portfolio that how we assess and evaluate does have a large impact on learning, and this feels like a good place for me as a teacher to start.

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