

**RECONSTRUCTION SITE:
EXCAVATING AND ELEVATING PLACE-BASED EDUCATION
IN WINNIPEG K-12 TEACHER PRACTICE**

By

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Abstract

Many K-12 students who attend public school in Canada will spend their day learning about the world outside of the school, while remaining in their classroom. The rich potential provided from learning in, with and for places, and people that live and work in them, remain severed from their lessons. This has been the model of public schooling for most Canadians since the standardization of the common school over a hundred years ago.

In recent years, educational reform movements, such as 'place-based education' (PBE) (Anderson, 2017; Gruenewald, 2003a, 2003b; Gruenewald & Smith, 2010; Vander Ark, et al., 2020), have sought to reconceptualize what, where, how and why learning takes place in an effort to reconnect youth to the communities in which they live, in a social, cultural, historical and ecological sense, while simultaneously bringing to life the curriculum teachers are tasked with facilitating. However, the ways in which K-12 educators utilize the school neighborhood as a site of ongoing learning remains unclear. If, how and why teachers utilize 'places' in their practice is under-researched in Canada (Webber, 2021), and yet, there is no research on the role of place in Manitoba teacher practice.

This dissertation comprises a mixed methods research method to understand the current landscape of PBE in the K-12 Winnipeg public education system and specific practices of a group of K-12 teachers. Firstly, a survey on PBE distributed to three school divisions provided four findings: that teachers across the K-12 system, disciplines and locations are utilizing place in their instructional design; that the use of place is focused on cultural appreciation over critical investigation; that place is used to supplement classroom instruction rather than a starting or end point; and, that most survey informants were using constructivist pedagogies, offering a foundation from which to expand PBE practices.

Secondly, Greenwood and Levin's (2007) 'Cogenerative Model' of action research (AR) and operating as a 'reciprocal collaboration' (Herr & Anderson, 2012) was undertaken between the lead researcher and three Winnipeg K-12 teachers. The AR study documented the experiences and reflections of the researcher and participants as they designed and facilitated place-based education units between two weeks and five months. Data was collected throughout the project through 'arenas' (Greenwood & Levin, 2007) such as ongoing conversations, pre- and post-interviews and member checking. Findings from this study included participants expressing that place-based education was a powerful pedagogical that aligned with their philosophy of teaching, simultaneously increasing student engagement and inclusion, and offering particularly strong impacts on student understanding the numbered treaties and reconciliation.

When Winnipeg is both considered by scholars as "ground zero for reconciliation" (Sinclair, 2024) and facing a number of broader challenges around attendance, engagement and teacher recruitment and retention, the findings of this study suggest that place-based education offers a powerful lens through which to understand, organize and facilitate teaching and learning in the K-12 system, in particular to offer a response to addressing the 94 Calls to Action.

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Chapter 1: Introduction

Statement of the Research Problem

Many Kindergarten to grade 12 (K-12) students who attend public school in Winnipeg will spend their day expanding their knowledge and skills about the world and themselves, but without direct connection to the communities in which they live and are statistically likely to continue to live for the rest of their lives. The rich opportunities provided from learning in places, including the natural environment and people that live and work in them, remain divorced from their lessons. This has been the model of public schooling for most Canadians since the standardization of the common school over a hundred years ago. In recent years, educational reform movements, such as ‘place-based education’ (PBE), have sought to reconceptualize what and where learning takes place to reconnect youth to the communities in which they live, in both a social and ecological sense. However, the extent to which K-12 educators utilize the school neighbourhood and surrounding community as a site of ongoing learning remains unclear. If, how and why teachers utilize ‘places’ in their practice is under-researched in Canada, and as of yet, there is no research on the role of place in Manitoba teacher practice, creating a knowledge-gap which this study seeks to fill.

PBE emerged as a field at the turn of the 21st century as a response to the increasing standardization of K-12 public education in North America (Gruenewald, 2003a, 2003b; Gruenewald & Smith, 2010; Smith & Sobel, 2010). It differs from other similar educational reform movements - such as outdoor education, experiential education or environmental education - as PBE typically draws together curriculum subjects, grounding learning in issues concerning students in their local community and situating ‘place’ as a pedagogical tool for learning. A place-based approach to learning incorporates multiple disciplines and aims for a ‘transdisciplinary learning’ where the lines that demarcate disciplines are eroded in favor of problem-based approaches that draw in knowledge, values and skills as needed to understand and act on an issue (Drake & Reid, 2017). In turn, this might lead educators who utilize a place-based approach to teaching and learning to include cultural, economic, environmental, political or social aspects of the community that blur the lines of, say, science, social studies, or English language arts and fine arts. PBE has been noted to have important contributions to not just academic knowledge (Akkaya-Yilmaz & Karakus, 2018; Powers, 2004), but also critical thinking (Akbas & Cakmak, 2019; Athman & Monroe, 2004), citizenship and environmental stewardship (Ontong & Le Grange, 2015; Sturrock & Zandvliet, 2023), and enhancing community connection (Johnson, Duffin, & Murphy, 2012; Sobel, 2013).

The title of this dissertation, *Reconstruction Site: Excavating and Elevating Place-Based Education in Winnipeg K-12 Teacher Practice*, has multiple meanings that connect to PBE, and the research of this study. Firstly, it is a reference to the third album of the Winnipeg band, The Weakerthans, which features songs focused on the history, culture and individual experiences of our shared home city. The band’s songwriter, John K. Samson, has penned lyrics which have taken the perspective of a tree in a cemetery, a communist pamphleteer, a city bus driver, and the

ironically titled, ‘One Great City (I Hate Winnipeg)’. Secondly, *Reconstruction Site* is a nod to the constructivist paradigm which is at the heart of inquiry and much of PBE practice. Bleazby (2013) claims that social reconstruction blends critical pedagogy, experiential learning and Deweyan pragmatism in which students engage in:

Philosophical inquiries with their local community with the purpose of reconstructing actual social problems, in order to facilitate independent thinking, imaginativeness, emotional intelligence, autonomy, and active and informed citizenship (p. 3).

Reconstruction then, occurs within the students themselves, requiring a new vision of teaching and learning, and whose goal is the reconstruction of the communities in which young people reside.

Thirdly is the idea that for many students, teachers and communities, the Manitoba K-12 education system is just not working for them, and needs reimagining and rebuilding, to which I will argue, PBE can play an important role. Given the social and ecological challenges of the present (Lawrence, Janzwood & Homer-Dixon, 2022), PBE is potentially a valuable theory and practice in K-12 education for positively impacting youth and the wider society in the present and future (Gruenewald & Smith, 2010; Smith, 2022). As Canadian society becomes more fragmented (Fawcett, 2023) and the duality between humans and the more-than-human world wider (Schwartzberg, Stevens, & Acton, 2022), knowledge, attitudes and actions more attuned to what it means to live and thrive in our communities is much needed. Past research on PBE (Anderson, 2017; Gruenewald, 2003a; Gruenewald & Smith, 2010; Smith & Sobel, 2010) claims that it can play a role in this reconnection, and gathering detailed accounts of current teacher practice provides data and pathways for understanding and supporting this work. Together the idea of ‘reconstruction site’ gestures towards a rethinking of what matters in education and supporting that work.

Research Questions

Extant research on the experiences of Canadian K-12 teachers using PBE is limited (Webber, 2021), with many studies focusing on outdoor or environmental education programs in British Columbia and Ontario (Priest & Asfeldt, 2022). To date, no published research on PBE has been undertaken in the Manitoba context. Due to K-12 curriculum being under Provincial jurisdiction and the highly contextual nature (by design) of PBE, understanding the local practices for a potentially transformative pedagogy is of value to Manitoba youth, teachers and the Province of Manitoba. It may be determined by teachers and scholars beyond Manitoba that research conducted in the Winnipeg context is of value to advancing understandings of current teacher practice in increasingly precarious times in their places.

The questions that oriented this study sought to understand the current ways in which PBE was operationalised in K-12 classrooms in the metro-Winnipeg region, its impacts and ways to build on its current use and navigate further implementation in the K-12 system. Specifically, the research questions guiding the dissertation were:

1. *To what extent is place-based education evident in K-12 teacher practice in the metro-Winnipeg region?*
2. *How and why is place-based education used in K-12 teacher practice in the metro-Winnipeg region?*
3. *How do K-12 teachers design and facilitate place-based education?*
4. *What content do K-12 teachers focus on in their place-based education practice?*
5. *To what extent is critical place-based education present in K-12 teacher practice?*
6. *What are the barriers and catalysts for teachers to engage in place-based education in metro-Winnipeg?*

Purpose of Study

This qualitative study sought to gather foundational knowledge of the state of PBE in the metro-Winnipeg region through an emailed survey questionnaire and working directly with a small number of practicing K-12 teachers in the metro-Winnipeg region as they designed and facilitated PBE in their classrooms through action research.

In Chapter 3 I will show how survey questionnaires and action research were appropriate research methods for answering the questions I had of PBE and supporting its practice in the field. In brief though, the survey questionnaire provided an accessible tool to gather foundational understanding of how PBE is used across the metro-Winnipeg K-12 system. It included open-ended questions that sought to understand the role of place in teaching and learning, the frequency of place in teaching and learning, and the impacts of place in learning.

Action research (AR) aligns particularly well with the theory and practice of PBE. Kemmis, McTaggart and Nixon (2014) argue that,

Action research examples demonstrate two things: (1) they demonstrate that action research initiatives are one kind of expression, in education and educational settings, of people's local responses to changing concerns prompted by global social movements; (2) they demonstrate that social movements are always also educational movements because they always involve the individual and collective self-education of people about the nature and consequences of historically significant changes in cultures, economies, the environment, and social and political life (p. 13).

These dual intentions of action research as suggested by Kemmis, McTaggart and Nixon (2014) offer a good fit for research on PBE owing to the local and context-specific nature of learning, as it is tied to places, people and issues within a specific community and the broader professional goals of the research participants.

Through AR, in this study I engaged with three K-12 teachers as they designed and facilitated a unit or series of units that aligned with definitions of PBE. This provided unique insight as to how classroom practitioners operationalized PBE, the successes they saw, the challenges they faced, and the specific role of place in their lesson facilitation. For the participants in the AR study, what and how they designed and facilitated learning was a political decision and they were keen to explore and develop their understanding of education and their

teaching practice through this study. As such, within AR, space was made for the research participants to surface their questions about the theory and practice of PBE. In this way, my questions and those of the research participants ran as two tracks within a single AR project. Details on the methods which I used for the survey and AR will be explained in greater detail in Chapter 3.

To conclude Chapter 1, I will provide an orientation to the reader of Winnipeg and the historical context to which the city, its residents and the education system operate. Specific challenges for the Manitoba K-12 system will be returned to in Chapter 5 as part of discussing the implications of the study findings.

Research Context

What is Winnipeg?

This dissertation is focused on the research and implications on teaching and learning in Winnipeg. While the findings of this research for K-12 education could resonate beyond the perimeter highway which contains the provincial capital of Manitoba, I am sensitive to the theoretical underpinnings of PBE and informed by critical geographers that research demands contextualization to its location (Helfenbein, 2021). As such, I will begin by orienting an introduction to Winnipeg with how the city of today was founded upon and continues to operate by the logics of settler colonialism. What follows is not an exhaustive exposition on both colonialism and settler-colonialism, but the specific ways these theories manifest in Winnipeg.

Settler-colonialism provides an important lens for understanding the history and contemporary realities of life in Winnipeg and the structural processes that divide and oppress people and exploit the land¹. Settler-colonialism also connects strongly with the pedagogical approach of PBE; in particular critical PBE (which will be discussed in depth in Chapter 2). As critical PBE advocates the drawing together of social justice education and environmental education, both elements are central to the theory of settler-colonialism. In recent years Winnipeg has received particular attention as an empirical example of settler-colonialism and racial capitalism (Craft, 2013; Dorries, et. al., 2019; Dorries, et al., 2022; Hugill & Simpson, 2022; McKinnon & Mallett, 2023; Perry, 2016; Toews, 2018; Werner, et al., 2018), which will be drawn on for a brief orientation to the city in which I reside, teach and undertake research.

Colonialism is commonly defined as the claim and control of a territory by another, beyond the territorial boundary of the controlling state (Lowman & Barker, 2015). Settler-colonialism, however, has important distinctions from traditional colonialism. Although both are motivated by capital accumulation, in traditional colonialism the colonizer is primarily concerned with resource extraction and segregates society often along geographical and racial lines to ease the outflow of resources (Hugill, 2017). In traditional colonization, wholesale replacement of the colonized society is not the aim, whereas settler-colonialism sees the

¹ The colonization of North America by Europeans in the last five hundred years continues a trend of ‘conquest’ by groups or nations the impacts of which extend to both colonized and colonizer (Greenwood, 2019; Memmi, 1965). This exploration of colonialism and settler-colonialism will focus specifically on how it pertains to the past, present and future structural and systemic logics playing out in the City of Winnipeg and its education system today.

colonizer staying and working to replace the Indigenous society with a settler society (what Edmonds (2010) calls ‘supersession’). Rather than oppressing a separate state *externally* as traditional colonialism does, settler colonialism oppresses *internally* against the Indigenous population, making them “captives within the borders of the state” (Lowman & Barker, 2015, p. 24). This oppression and the drive to eliminate Indigenous peoples, either through assimilation, or actual death through genocide (what Daschuk (2013) refers to as the ‘clearing of the plains’ in Canada), as the Government of Canada has recently accepted was the case. The drive to dispossess, displace or eliminate Indigenous peoples is caused by the desire of the State and business to claim, economically exploit or extract the land and its natural resources. As many of the natural resources extracted - oil, gas, coal - are fossil fuels combusted to create energy to power the capitalist economy, there is a direct link between settler-colonialism and climate change.

Wolfe (2006) outlines three elements of settler-colonialism. Firstly, he argues that invasion is not a historical event, but a protracted series of practices (dispossession, displacement, genocide) that continue over an extended period. Secondly, rather than the colonizer remaining in their ancestral ethnic homeland, settlers transplant to the colonized territory and seek to rebuild the colony in the image of their homeland. Thirdly, through the first two elements, the colonizer seeks to ‘transcend’ colonization by assimilating the Indigenous population into settler cultural norms. These three elements are supported by myths, stories told and repeated so frequently (and often leveraged through government schooling) that they become accepted as truth. Unlearning myths and learning historical truths is part of the work of decolonization, to which adopting the label of ‘settler’ and all it entails as part of the work (Lowman & Barker, 2015).

Settler-colonialism is violent at its core. In a settler-colonial society, Wolfe (2006) states the settlers “destroy in order to replace... thus the assailant of editing Indigenous forms of life and land makes way for the creation of a new society on the expropriated land base” (p. 9), which “consolidates a particular system of production and social production that benefits settlers” (p. 11). This manifests, as Tomiak (in Dorries, et. al., 2019) states, with “Indigenous peoples [being] dehumanized, expelled and controlled; collective Indigenous rights, title and agency are dismissed or tightly regulated to ensure that the production of urban space occurs strictly on settler terms” (p. 112-113).

Settler-colonialism has been theorized to more narrowly apply to the urban context. Huggill (2017) outlines three primary characteristics of the settler-colonial city: (1) an internally-oriented political economy that seeks the enrichment of the colonizers on that territory rather than one overseas; (2) the colonial city is not a ‘historical artifact’ but remains in a position of power over land and resource for the continued domination of that place, albeit in continually changing shape; (3) there is a preference for “removal rather than integration or local containment for the purposes of economic exploitation” of Indigenous peoples (pp. 6-7) or what Tomiak (2013) calls the ‘deterritorialization of Indigenous peoples’.

Memmi (1965) linked place to settler-colonialism in his work, *The Colonizer and the Colonized*:

A foreigner, having come to a land by the accidents of history, has succeeded not merely in creating a place for himself but also in taking away that of the inhabitant, granting himself astounding privileges to the detriment of those rightfully entitled to them. And this is not by virtue of local laws, which in a certain way legitimize this inequality by tradition, but by upsetting the established rules and substituting his own. He thus appears doubly unjust. He is a privileged being and an illegitimately privileged one; that is, a usurper (p. 9).

Memmi claims that settler colonialism remakes Indigenous place in the vision of the settler. This project requires erasure on multiple fronts: the removal of Indigenous peoples either through relocation to other places or genocide, renaming places, establishing new (and often exploitative) relationships with the natural elements of the place and solidifying these pieces while extinguishing histories and alternatives that challenge these norms.

In the Canadian context, Coulthard has done much to advance the theory of settler colonialism. Building on the work of Franz Fanon, *Black Skins, White Masks* (2014) brings Marxist thought to settler colonialism. Coulthard, writes against the Indigenous approach seeking a politics of ‘recognition’ in favor of a politics of ‘resurgence’ – defined this as:

an intellectual, social, political, and artistic movement geared toward the self-reflective revitalization of those values, principles and other cultural elements that are best suited to the larger contemporary political and economic reality (pp. 156-157).

A politics of recognition is desirable by the State, but for Coulthard this is a mask for the State’s true intentions, which is access to labor and resources. A Marxist analysis of property, obtained through primitive accumulation is at the core of Coulthard’s theory, but he is keen to emphasize that whereas Marx saw accumulation as temporally and historically located, that Indigenous dispossession continues as part of settler colonialism. Indeed, as Hugill (2017) notes, settler colonialism is predicated on the erasure of Indigenous peoples, of which dispossession is a vital tool.

Control over land is, Coulthard (2014) argues, central to the logics of capitalism.

Commenting on Indigenous struggles against capitalist imperialism, they write:

[the struggles] are best understood as struggles around the question of land - struggles not only for land, but also deeply informed by what the land as a mode of reciprocal relationship (which is itself informed by place-based practices and associated form of knowledge) ought to teach us about living our lives in relations to one another and our surroundings in a respectful, non-dominating and non-exploitative ways (p. 60).

As Coulthard details, the politics of resurgence demands that Indigenous peoples first recognize themselves as free, dignified, and distinct contributors to humanity, and second, turn away from colonizer recognition and on their own terms engage in actional resistance (inward and away from the colonizer). It is these historical forces which initiated the urban development and settlement of Winnipeg over 150 years ago.

Emerging as a settlement due to the meeting of two rivers - the Assiniboine which tracks west to the Rocky Mountains, and the Red River from the southern United States - which gather at The Forks / Le Forche before moving North and entering into Lake Winnipeg and then Hudson's Bay, has been a meeting and trading point for Indigenous peoples for centuries. Cree and Ojibway peoples navigated the waterways of the Hudson's Bay watershed and returned to *Winipek* (Cree for muddy/fertile water) prior to the growth of the Fur Trade, but it was this new colonial trade that drastically transformed the economic, cultural and political structure of the territory.

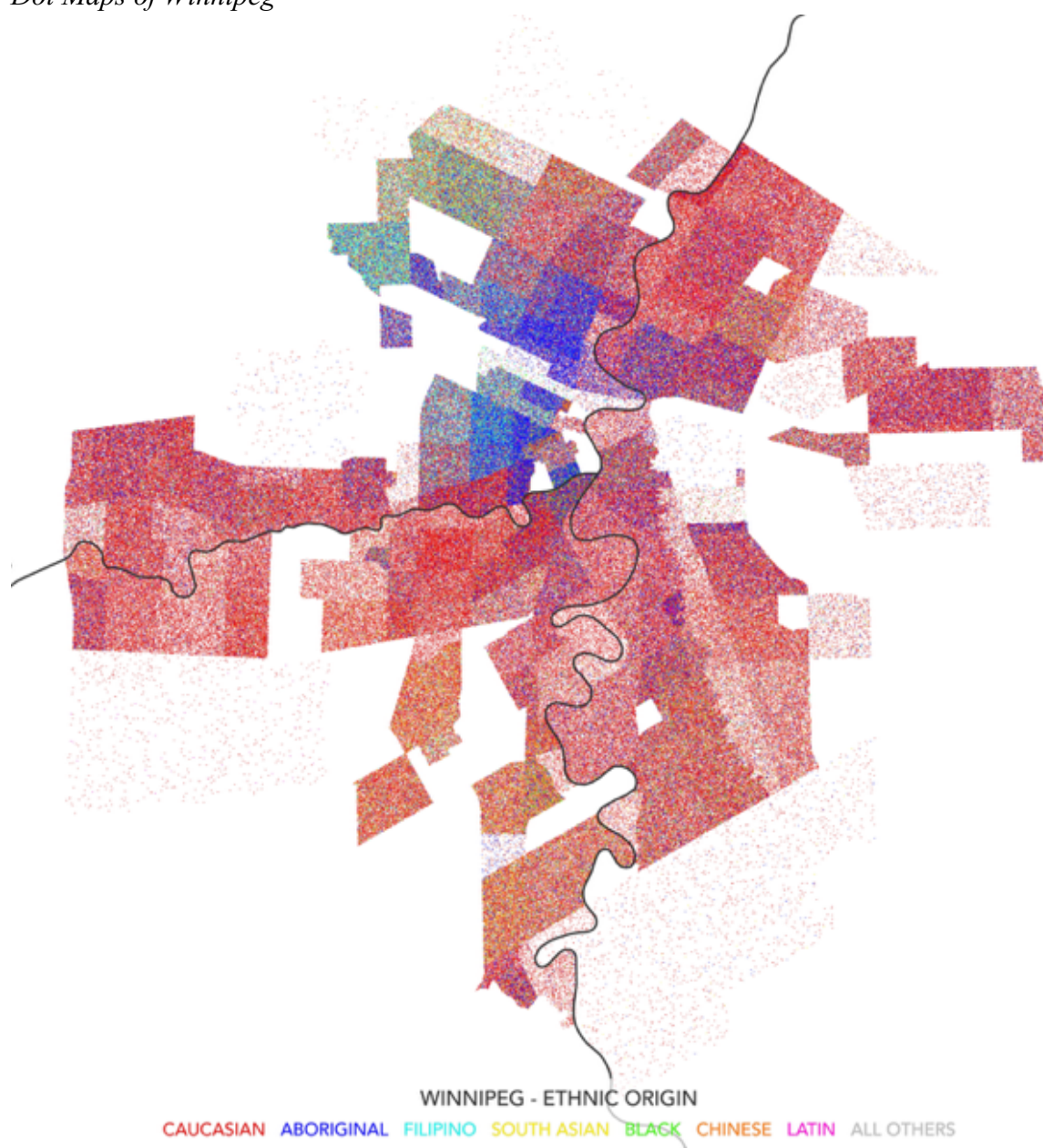
The signing of Treaty 1 at Lower Fort Garry in 1871 which indicated the provision of quality land with access to city waterways was not fulfilled to the extent negotiated, and for many families struggling with poverty, ultimately much was sold to white capitalist investors, who then established land rights and built property. Regardless, the right to own property was limited to those Indigenous peoples who were willing (or felt little option) to assimilate. In other words, "the Canadian government created a legalized racial hierarchy as a means of securing its territorial claims" (Dorries, et al., 2022, p. 266). These patterns of settlement from the 18th and 19th century in Winnipeg remain through to today.

Winnipeg is a settler-colonial city founded on Indigenous land and built with the exploitation of Indigenous labor (Toews, 2018). The quest for control and domination of land has led to the state and capitalist actors engaging in violence and forced displacement to restructure urban space. Like many other North American cities, violence lies at the root of production of urban space (Dorries, et al., 2022). This is, as Toews (2018) and Dorries et al., (2022) write, how racial capitalism operates: the division and attempt to separate communities to ensure the growth of white capital enterprise and community development. Racial capitalism as a theory developed out of the work of Cedric Robinson's (2020) *Black Marxism*. Here, Robinson contended that capitalism has been a racialized system of exploitation since its origins. Historical analysis that links the growth of capitalism with colonization supports the idea that the capitalist economic order requires an accompanying ideological system to render particular people and communities on sectors of land as barriers to economic development and subsequently seeks to remove or eliminate them (Coulthard, 2014). As Ruth Wilson Gilmore (2022) writes, capitalism requires inequality, and racism enshrines it.

To take one Winnipeg example is the story of the Métis community of Rooster Town. Emerging originally as a suburb of the City of Winnipeg, this Métis neighbourhood was soon to be consumed and again displaced by migration from Eastern Canada. This process is what Toews (2018) calls 'racial swamping' and Dorries, Hugill and Tomiak (2022) more bluntly identify as 'ethnic cleansing', with white settlement was made possible by failure of the city to grant land titles for Indigenous and Métis peoples, opening an opportunity for white settlers to claim land on which original inhabitants resided. This racialized displacement pushed Métis communities further into the margins, eventually fragmenting them across the city. Many of these displaced peoples were forced into the low-quality housing stock of the North End neighborhood where today, as Figure 1.1 will show, concentrations of poverty and ethnicity

cluster. As the authors of a book on Rooster Town claim (Werner, Peters & Stock, 2018), the story of Rooster Town is symbolic of the early settlement of Winnipeg by non-Indigenous peoples and casts a structure of settler-colonialism which continues to today.

Settler-colonialism has specific logics applied to both time and place. Time, because the historical events of the past, many of which are ongoing, continue to reverberate albeit in uneven ways across geographical spaces. Two maps illustrate how this intersection imposes itself in Winnipeg (please note the outdated racialized terminology):

Figure 1.1*Dot Maps of Winnipeg*



Note. See Manley (2014)

The top map details the ethnic origin of Winnipeg residents; of note are concentrations of Indigenous peoples (blue dots) in the downtown and North-End sections of the city. On the bottom, income per-annum, which again sees lower concentrations of wealth (red dots) in the same sectors, identifying a correlation between Indigeneity, income, and geographic residence. Figure 1.1 visualizes what Comack (2019) calls ‘spatially concentrated, racialized poverty’.

Yet, through the last centuries of oppression, a line of resistance remains. Indigenous individuals, but more often collectives and organizations, have refused to participate in acts of

displacement and dispossession (MacKinnon & Mallet, 2023). Today, economic reconciliation is begetting Indigenous cultural resurgence. The Manitoba Métis Federation holds claim to the former Bank of Montreal Building at the junction of Portage and Main, and own property down the illustrious Broadway Avenue. The Manitoba Southern Chiefs purchased the former home of The Bay store (formerly Hudson's Bay Company) on Portage Avenue for a symbolic \$1.00, which they are currently restoring and intend to convert to multi use purpose for their organization and community use. And the former military site, Kapyong Barracks, after prolonged legal battles was transferred from the Government of Canada to a consortium of First Nations, who intend to build housing, commerce, education and recreational sites. As MacKinnon and Mallett (2023) have so effectively explored in *Indigenous Resistance and Development in Winnipeg 1960-2000*, this resistance has included housing, education, friendship centers, economic development, women's centers and child welfare, with ongoing positive impacts for Winnipeg and its residents. To paraphrase Simpson (2014), settler-colonialism has, and continues to fail at what it intends to do, eliminate Indigenous peoples. Winnipeg is ongoing proof of that maxim.

An ongoing struggle remains, and K-12 public education is a key site for this struggle. This has manifested in targeting the family structure through forced enrolment in residential and day schools, removing children from birth families through the Sixties Scoop, and through to today, where Indigenous children are far over-represented in the child welfare system with higher rates of apprehension than those registered in residential schools. These stories are increasingly part of the consciousness of Winnipeggers, due to the work of the Truth and Reconciliation Commission led by Winnipeg resident and former Senator Murray Sinclair. It is this history of place which animates this research project.

K-12 Public Education in Winnipeg

My experience amongst metro-Winnipeg school divisions is that there is an appetite to engage more deeply with work that grapples with the ongoing violence of settler colonialism. This is particularly in learning around residential schools, the Sixties Scoop and increasing numbers of Indigenous youth entering the foster care system - all different forms in which the State seeks to erase Indigenous peoples from settled land. This work is increasingly supported by funding for Indigenous educators, resources and support documents for Manitoba educators (Kuly & Burton, forthcoming; Skelton & Flett, 2025). The Government of Manitoba has mandated that every K-12 teacher in the province complete two days of Treaty Training by the end of 2025.

With the largest urban Indigenous population in Canada, Indigenous peoples currently make up 12.4% of the Winnipeg population, with Indigenous children aged <14 representing 26.5% of the total Indigenous population versus non-Indigenous children aged <14 accounting for 15.5% of the non-Indigenous population (Statistics Canada, 2022). Indigenous children >14 years of age are the fastest growing ethnic group in Winnipeg. By several metrics, Indigenous students remain underserved in the education system; they are identified as the most at-risk of

school non-attendance, are underrepresented by Indigenous K-12 educators and have an on-time graduation rate over 40% lower than non-Indigenous students (50.9%, compared with the non-Indigenous graduation rate of 91.1%) (Manitoba Education, 2022). With a new provincial government recently elected in Winnipeg headed by a First Nations man, and the announcement that a former superintendent recognized as leading the most progressive school division in Manitoba appointed Assistant Deputy Minister for Education, there are encouraging signs that a focus on supporting Indigenous youth in public education work will continue to grow.

As my literature review in Chapter 2 will show, Indigenous ways of knowing are strongly tied with place as a context for learning while drawing on knowledge from elders' wisdom. In Manitoba this is most succinctly represented in *Mamahtawisiwin: The Wonder We Are Born With* (Manitoba Education and Early Childhood Learning, 2022), a document developed by Indigenous elders and experts in education that offers a road map for decolonizing/indigenizing education in the province.

There is, I would argue, much less focus on sustainability education in Winnipeg. One reason might be due to geography and ecosystem; aside from increasingly hot summers, and wildfire smoke drifting in, Winnipeg has to date been largely removed from the more catastrophic environmental disasters elsewhere in Canada (such as flooding, extreme heat and hurricanes that lead to evacuations). The biggest environmental threat facing Winnipeg has historically been flooding, yet the completion of the Winnipeg floodway in 1968 allows for water overflowing from the Red River to be diverted around the east side of the city. But we are living in a time where climate change is permeating every place on the planet (Vince, 2022), and Manitoba will be no exception. In recent publications, including from Sauchyn et al., (2020) released by the Government of Canada, the authors identified five areas of concern for the prairie provinces:

- ecosystems shifting north-wards (including the transition of boreal forest to aspen parkland and grassland; increasing species loss);
- floods, droughts and wildfires (increasing in frequency and severity);
- increased intensity of pressures on water management systems (resulting from flooding and drought; requirement for attention to wetland preservation and restoration);
- changes in agriculture (some benefits of a longer growing season may be mitigated by droughts, floods, invasive species);
- exacerbation of societal inequalities (particularly amongst Indigenous peoples, women, lower socio-economic groups, youth and elderly).

The report added that “cities are at the forefront of adaptation and resilience planning” (p. 6) on the prairies; with Winnipeg as the third largest prairie city, it will hold significant responsibility. In an updated report (Lulham, Warren, Walsh & Szwarc, 2023), researchers concluded that infrastructure, human health, natural resources and the functioning of ecosystems were at particular risk, leading to rapidly increasing economic costs coupled with lagging informed and coordinated action amongst stakeholders.

A lack of focus on environmental education has not always been the story in Manitoba. As I have written elsewhere (Burton, 2025; Link & Burton, 2025) strategic undermining and resource redirection away from education for sustainable development (ESD) from the past elected provincial governments in Manitoba, has taken the province from a leader in ESD to one now far behind other provinces in Canada. A recent study from Learning for Sustainable Futures (2025) placed Manitoba last overall across all provinces and territories for teaching across seven aspects of climate change education. Research over the last decade indicates that ESD teaching in Manitoba struggles due to a lack of focus in curriculum documents, an overly restrictive school structure, lack of administrative support and resources (Burton, 2019; Hart, 2002; Metz et. al., 2010; Jacques, 2012; Eckton, 2015; Belton, 2013; Michalos, et. al., 2015; Babiuk & Falkenberg, 2011). This has resulted in a patchwork of ‘islands of excellence in ESD’ across Manitoba, with solitary leaders in ESD or ‘Green Don Quixote’s’ (Jacques, 2012) working individually in classrooms or striving to push whole school approaches.

It cannot be argued that the lack of focus on sustainability education is supported by the public. A 2022 report Learning for Sustainable Futures claimed that just 13% of survey respondents believed the Manitoba Government was doing enough to address climate change through systemic means (the lowest percentage of all Canadian provinces and territories) and two-thirds of respondents agreed that climate change education should be a “high priority for schooling” (Learning for Sustainable Futures, 2022, p. 19). With its strong theoretical connection to environmental education, I see PBE as having the capacity to see and act on the intersecting and crises of Indigenous welfare, climate change and poverty. It is my aim to uncover whether this is supported by evidence in the field through my research studies.

Organization of Study

This dissertation is comprised of five chapters. Following this introductory chapter, Chapter 2 will provide a detailed account of PBE through a literature review. Chapter 3 outlines the research paradigms which frame the study, an overview of the research methods and steps for both conducting the survey and action research. Chapter 4 details the survey findings and then the action research findings. This sets up Chapter 5, which draws together the findings from Chapter 4 to discuss summative findings of the research contextualized to the current state of the Manitoba K-12 education system and offers a pathway for scaling and strengthening PBE. Chapter 5 concludes by considering the limitations of the findings and gestures towards avenues for further research.

Chapter Summary

In this chapter I sought to situate what this dissertation will do, why it will do it, the research questions that guide the research methods and with a focus on settler-colonialism and climate change, the historical, cultural and environmental context to which the study will operate. The next chapter will build on the very brief introduction to PBE, with a deeper analysis of its approach to teaching and learning. Specific emphasis will be focused on PBE’s origins,

convergences and divergences with similar approaches to teaching and learning, empirical research to support its use, scholarly critiques and responses from PBE scholars. This will set up the close of Chapter 2, which will identify the current knowledge gaps in research that this study will seek to fill.

Chapter 2: Literature Review

There are five sections for this literature review, which will be addressed sequentially. Firstly, a historical overview of PBE, which is marked out by distinct camps – liberal, critical and Indigenous. Secondly, highlighting three key texts that have influenced PBE from Sobel (2013), Smith and Sobel (2010) and Gruenewald and Smith (2010). Thirdly, situating PBE amongst the wider literature of approaches to teaching and learning in K-12 education. Fourthly, a presentation of the critiques of PBE; and fifthly, an identification of gaps in research which justify the dissertation research. Also embedded are three passages on terminology (distinguishing ‘place’ from ‘space’ and ‘community’ and defining ‘decolonization’) which greatly informs critiques of PBE and offers guidance on how PBE might evolve as a theory and practice.

The method used to research for collecting books, chapters and journal articles began with searches on ERIC, Education Source and Google Scholar, before using a snowball sampling approach to gather further texts – often texts emerged through citations within other works. Key search terms ‘place-based education’, ‘place-based learning’, ‘pedagogy of place’, ‘place-consciousness’ were used to develop a broad understanding of PBE, before this work was synthesized with a specific narrowing of focus on PBE scholarship that spoke to the K-12 education system in North America. A further literature review that explored philosophical understandings of ‘place’ was completed, but ultimately not included in this literature review.

The initial literature review informed the organization of this chapter. Literature was synthesized for the introduction, with Seawright’s (2014) ‘three camps’ offering a particularly helpful framework for distinguishing different understandings and practices of PBE. Throughout the literature, three texts on PBE were prominent (Sobel, 2013; Smith & Sobel, 2010; Gruenewald & Smith, 2010), and hold their own section of this chapter as they effectively demonstrated how scholars had authored works that aligned with either a liberal or critical approach to PBE in K-12 education practice. Seven related fields of PBE that informed its practice (interdisciplinary learning, project-based learning, environmental education, experiential education, democratic education, commons education and Indigenous ways of knowing) were all identified throughout the literature and informed a secondary literature review that led to the writing of this section. Lastly, the initial literature review gestured towards three dominant critiques of PBE from Bowers (2008), Indigenous scholars and the practical challenges of teaching and learning with a non-traditional approach in the K-12 classroom, which were outlined and granted useful guidance on knowledge gaps before moving into the research stage of this dissertation.

An Introduction to Place-based Education

Places are an inescapable part of our existence and the human/more-than-human life that moves in and with them. How we experience our places and the way we think about them mediates the extent to which we can fully take advantage of the potential for place to shape our

identities, relationships, and worldviews (Sinclair, 2017). Using place as the ontological location for the human and more-than-human experience has a rich tradition; everything that has happened has done so in place and been conditioned by the ecological and cultural context of a location. Failing to heed the importance of place to life leads us to, as Elder (1998) notes,

moving through days in which there are trees but no tree in particular, we drive along roads that could be anywhere, never registering the mountains to the east and lake to the west that determined, in fact, exactly where that route would run. Such casual familiarity is the opposite of intimacy and attentiveness (p. 8).

Learning in, with and for places then, brings a deeper understanding and appreciation to our individual and collective lives.

Places are stages and locations of memory (Trigg, 2012); places force or limit human and natural action (Harvey, 2007, 2012). Places can be understood as sites of commemoration (Utt & Olsen, 2007), erasure (Allard-Tremblay & Coburn, 2021), of hope or oppression (Larsen & Johnston, 2017). Places influence our culture, and indeed culture and place are in dialogue, despite increasing globalization (Gruenewald & Smith, 2010). Scholars have understood place through a variety of disciplines, notably geography (Casey, 2009; Castree, 2004; Cresswell, 2015; Helfenbein, 2021; Soja, 1989, 1999), philosophy (Malpas, 1999; Tuan, 1977), psychology (Di Masso, Dixon, & Durrheim, 2014; Lewicka, 2011; Manzo, 2005; Trigg, 2012), gender (Massey, 1994), sociology (Chamlee-Wright, & Storr, 2009; Dorries, et al., 2019; Miller, 2002; Relph, 1976; Somerville, 2010), history (Basso, 1996; Deloria, 2004; Toews, 2018), and education (Chambers, 2006; Greenwood/Gruenewald, 2003, 2005, 2012; Gruenewald & Smith, 2008; Helfenbein, 2021; Seawright, 2014; Smith, 2002; Smith & Sobel, 2010).

Places are also pedagogical, writes Gruenewald (2003a). We can learn differently, if not more effectively *in situ*. Teachers can use places as a starting point, a focus, a location for putting knowledge into action. The location for learning can be remote, or immediate. People work in different places and tend to have expertise of what happens and why in those places; these people, or experts, can be drawn into the learning experience as guides, primary sources of information that can be folded into a study. When teachers come to recognize places as not just a “a context for society – its container... [but] a structure created by society” (Soja, 1980, p. 210) then the possibilities of learning through PBE open up. This is the premise of PBE: that places can, and should, be sites of learning, investigation, of action. If educators are to respond to Elder’s (1998) call and seek to reacquaint citizens with their community and the life sustaining natural world around them, then PBE offers a rich theoretical and practical framework for doing so.

PBE is an approach to education that actively brings the school and community closer together (Gruenewald, 2003a, 2003b; Gruenewald & Smith, 2010; Smith, 2007; Smith & Sobel, 2010; Sobel, 2005). It pulls elements of different pedagogical practices to meet this aim, specifically: interdisciplinary learning, project-based learning, experiential education, and outdoor education. White and Reid (2008) claim that the aims of PBE are to be,

an immersive, deep learning environment that places students at the center of their cultural heritage, history, and landscape, by using the experiences offered by the context for the study and knowledge of art, language, mathematics, science and other subjects of the curriculum. The idea of a multiple learning places approach acknowledges the many spaces a teacher works in, and seeks to value each space, without merely privileging the classroom space (p. 87).

In short, PBE seeks to recentre the community and surrounding environment beyond the school in what and how learning happens in K-12 schools.

Though gaining traction in academia over the last two decades, the first use of the term ‘place-based education’ is believed to have been used by Newman and Oliver (1967), where the authors asserted that the “fundamental objective of education is the development of individual human dignity, or self-realization within community” (p. 61). The philosophical orientation - if not the practices - of PBE today, remain closely aligned with these words over fifty years on, even if K-12 education has not actualized this objective.

Two scholars that were part of popularizing the term ‘place’ in an educational context were David Orr (1992, 1994) and Paul Theobald (1997). On the tail of the United Nations Brundtland Report (1992), Orr (1994) linked the environmental crisis and emerging reality of climate change to the disconnection between public education and the natural world. He coined the term ‘ecological literacy’ to re-establish this relationship, to which stewardship through learning about local place would be central. Orr (1994) advocated for schools to think about the ways that place-based learning could aid the shift away from an individual, temporary, rootless connection with place (what he referred to as a ‘resident’) and towards ‘inhabitant’, where citizens are “inextricably linked to place” (p. 102) and recognize the relationship between humans and the more-than-human world. While at the time Orr was making an intervention into environmental education, the use of ‘resident’ and ‘inhabitant’ was picked up by Gruenewald (2003a) and applied to his theory of critical PBE (more on this later).

Theobald (1997) tied together ‘commons education’ (detailed below) with a need for K-12 educators to use natural places as sites of learning, what he called ‘place-consciousness’. Principally concerned with the rejuvenation of rural communities, Theobald (1997) decried a narrow focus on future economics over cultural vitality in the present. “A cultural shift back to community orientation guided by democratic principles” (p. 114) could be fostered by the application of place-consciousness philosophy to PBE. Theobald argued that “beginning at the elementary level, students must be socialized into the practice and habit of researching and deliberating answers to the questions that vex their communities *at the moment*” (his emphasis) (1997, p. 134), with the depth and complexity of these investigations expanding through to high school. Theobald’s (1997) work focused specifically on PBE in rural regions of the United States. This work can be seen as an antecedent to Liberal PBE (Seawright, 2014), which will be discussed in more detail below. Since the turn of the century PBE has increasingly gained traction in educational circles, particularly in rural parts in the Northeast and Northwest United States.

In the early 21st century, Gruenewald (2003b) adopted Theobald's (1997) notion of 'place-consciousness' as the underpinning of PBE, defining its aims as working, against the isolation of schooling's discourses and practices from the living world outside the increasingly placeless institution of schooling. Furthermore, it aims to enlist teachers and students in the firsthand experience of local life and in the political process of understanding and shaping what happens there (p. 620).

Gruenewald's (2003b) notion of place-conscious education compliments PBE. A way to place-consciousness is to "enlist teachers and students in the firsthand experience of local life and in the political process of understanding and shaping what happens there" (Gruenewald, 2003b, p. 620) offering a "vibrant counterpoint" (p. 621) to traditional approaches. These educators might be guided by a series of questions Greenwood (2013) posits:

- a. What happened here? (historical)
- b. What is happening here now and in what direction is this place headed? (socioecological)
- c. What should happen here? (ethical) (p. 97).

To be conscious to 'place' is to see the intersection of people, nature, culture, history, politics, for example, and to make the familiar unfamiliar again, so that we might see with new eyes and act in ways more attuned to the local. Greenwood's (2013) work on 'place-consciousness' builds out the theory of critical PBE started ten-years prior, as a more thorough exploration of how it challenges educators to "rethink the assumptions of schooling in the context of the places we inhabit and leave behind" (Greenwood, 2013, p. 95).

Place-based scholars argue that places themselves can be inherently pedagogical: "as centers of experience, places teach us about how the world works, and how our lives fit into the spaces we occupy... places make us" (Somerville, 2007, p. 151). PBE necessitates learning in, with, and for the community. By deepening understanding of a place in historical, social, cultural and political terms, "young people who grasp the nature of their situation and possess the skills and understandings required to live well in a place, may possess the combination of determination and intelligence required to construct something different" (Gruenewald & Smith, 2010, p. viii). Learning is often planned and facilitated with consideration of human/nature interaction and fits well with how educational institutions can engage with the many contemporary crises facing humanity and the more-than-human world (Delpit, 2019).

Exploring the empirical research on PBE practice shows how these theories have been put into practice by K-12 teachers in North America. Table 2.1 provides an annotated selection of case studies, organized by discipline, that have been published through peer-review or as thesis/dissertation in the last twenty years. These examples show how teachers have considered critical social and environmental issues in their community and linked it to mandated curriculum.

Table 2.1*PBE Case Studies*

Discipline	Author	Case Study Summary
Art	Brook (2016)	A case study of one rural British Columbia high school's music program which focused on the use and comprehension of music selection to deepen students' sense of place and developed community.
	Conkey & Green (2018)	An elementary class was guided through an exploration of the local community with emphasis on food webs and the snake population. The medium of art was used as the assessment tool for students to present their knowledge.
Environmental	Buxton (2010)	Middle school youth participated in a week-long summer program based out of an urban seaside nature centre. Beginning with guided curriculum-based activities, students moved into inquiry questions about local water issues, leading to development of an awareness campaign.
	Zimmerman & Weible (2017)	High school students in a rural community engaged in a sustained exploration of their local watershed, identifying local pollutants such as natural gas wells, agri-chemical run-off, and leisure activities (such as boating and fishing) which were having a negative impact on the water quality. Students developed a policy plan for mitigating harmful human actions.
Language arts	Mathews (2013)	Through the framework of 'contested spaces', a high school teacher led students through a community exploration – mapping, interviewing, documenting - culminating in students creating a media artifact using augmented reality that could communicate the complexity of a chosen place.
	Wason-Ellam (2014)	A study of an early-years approach to embedding place-based focused picture books, combined with arts-based experiences and journaling focused on a local river. Students were tasked with articulating their visions for watershed protection.
Science	DeFelice et al. (2014)	High school students collaborated with college students and faculty to explore the human impacts on

		soil and eutrophication of the lake at a local park. High school students developed inquiry questions, completed a series of research tasks, documented and presented their findings to park management for mitigating further pollution to the park.
	Santelmann et al. (2011)	Middle school students in a rural community in Oregon collaborated with landowners and managers to engage in a series of site visits to the local watershed, including ecological repair through tree planting to repair the riparian buffer.
Social studies	Perkins, et al. (2010)	Students used a combination of geography information systems (GIS) and global positioning systems (GPS) to collect and map trees in school community.
	Seawright & Hayes (2025)	Middle years students in Wisconsin engage in a process of ‘counter-mapping’ activity which surfaces and challenges notions of white-heteronormativity and advocates for spatial justice.
	Sgouros & Strin (2016)	Through a 5-day camp or semester-long program in Wyoming, middle school students were introduced to cultural history and archaeological classes, before being invited to work with archaeologists engaged in active field work.

Six themes emerge from this collection of PBE case studies: (1) all are examples of whole class explorations of place; (2) PBE is possible across grade levels and subject areas in the K-12 education system; (3) a ‘sense of place’ is used as a framework to connect youth to people or places so that they are positioned to care for them in the immediate and long-term future; (4) the role of inquiry or project-based approaches are common, but that direct instruction is foundational to any exploration; (5) water is a recurrent topic of focus for inquiry and exploration; (6) there is leadership from classroom teachers and often connection to place through experts or community partners.

Notes on Terminology

Place and Space. Within this dissertation specific language is used around ‘place’ which distinguishes it between ‘space’ and ‘community’ respectively. A summary of these linguistic nuances is offered here. There are important conceptual differences between place and space. Cresswell (2015) defines place as “spaces in which people have made meaningful... spaces people are attached to in one way or another” (p. 7). To do so, “places must have some relationship to humans and the human capacity to produce and consume meaning” (p. 7). Tuan (1977/1997) states that spaces become places when “when we get to know it better and endow it

with meaning” (1997, p. 6), and this working definition of place continues in education today (Helfenbein, 2021). Place has meaning attached to it by individuals and groups, but place also reflects meaning - it becomes “a way of seeing, knowing and understanding the world. When we look at the world as a world of places, we see different things, we see attachments and connections between people and place. We see a world of meaning and experience” (Cresswell, 2015, p. 11).

Philosophically, Relph (1976) has done much to advance an understanding of place, claiming “to be inside a place is to belong to it and identify with it, and the more profoundly inside you are, the stronger is the identity with the place” (p. 49). This begs the question: how does one become “more inside” a place? What are the dispositions, actions and frameworks for reflection that enable it. How do we ‘get’ and identify which “things, thoughts and memories in particular configurations” (Escobar, 2001, p. 143) make up the character of a place?

To further illustrate the distinction between space and place, and how we might “get inside” place, I will offer an example. Imagine a field on the side of a highway. Standing on the side of the field you may recognize that it has been seeded this year with canola, that the crop is benefitting from an above average snowfall this past winter and early spring snowmelt. You may come to know that last year peas were seeded here, the first time ever, and that this is a result of a warmer climate moving north that has made this possible. You may notice that the south-east corner of the field does not grow well owing to high saline content in the soil; this section was once a marsh which would be home to waterfowl but was drained and seeded to maximize the yield by the landowner 15 years ago. Looking beyond the field, we see a new housing development, which could soon replace the field with suburban growth; you know that developments like this are increasing in this part of the province, as land outside the city is cheaper than inside, and many home-buyers are wanting to purchase suburban over urban homes. Stepping into the field you note that there is an early onset of flea beetle, which without chemical spray could quickly spread; flea beetle is an invasive species – 100 years ago this field would not have been troubled by this insect. You also consider what this field looked like a century ago and contemplate that owing to good drainage, proximity to the river and slightly elevated topography that this may have been a place for the Dakota First Nation to make camp. Applying your understanding of settler-colonialism, you weigh the likelihood that Métis peoples moved through this land as they were forced west to make way for European settlement from the east; this farmland, the homestead which you see to the north, is a century farm, meaning that past generations of this particular family were granted a quarter section for a minimal cost, and paid more substantial amounts to buy out two farms surrounding this one. You know that without expansion the economies of scale would lead this family to make decisions on whether to sell (possibly to the property developer on the verge of their property). Your mind’s eye considers how the field has been transformed over the last 200 years, and what it might look like in another 200 years.

The above example demonstrates how a ‘space’ – a field beside a highway – can become a ‘place’ when contextual knowledge is applied. The field has become pedagogical in the sense

that exploring the field through historical, cultural, economic, scientific, social lenses has brought it to life. The field has taught us how humans have and continue to interact with nature, the impact of broader (invisible) forces that play out, and provide us with an opportunity to think about what, why and how decisions are made that could change this field, for better or worse. The field is a place which can teach us; without this exploration, the field remains a space.

Place and Community. Throughout the literature, PBE and community-based education are often conflated. In this literature review I will use the term ‘place’ over ‘community’ for several reasons. Firstly, the use of ‘community’ was derived from Theobald’s (1997) work on place-based learning, which focused on rural communities - the ‘place’ and site for learning was the community. However, since that time and with the increasing adoption of PBE into urban places, the use of community may not always be an accurate reflection of the site of learning. Agnew (1989/2014) asserts that community can be defined in two distinct ways: to group individuals who hold relative consensus on morality, against a group of individuals who are connected by a set of social relations in a defined geographical setting. Using the term ‘community’ leads to the question of ‘whose community?’, as within any populated place may contain a multitude of communities. Place creates an opportunity for educators to consider whose voices and histories are present or marginalized and need to be “framed within the larger socio-political context where various insideness and outsideness, multiple histories, and diverse narrative coexist dynamically” (Lim, 2010, p. 906). Further, place-based learning can happen in locations that are not communities, such as remote locations, museums and galleries, waste dumps, sites of historical significance or natural beauty, or an array of different places that may or may not be local (such as the field example). Finally, as will be shown in this literature review, the theoretical foundation for PBE is much richer than community-based education. Theobald and Siskar (2008) note that “the full range of an individual's humanity will unfold someplace, whether or not we would choose to call that place a community” (p. 198). While there will be references to the community throughout, ‘place’ is the operational term for this review.

Three Camps of Place-based Education

PBE does not exist in theory or practice as a single monolith, rather there are differences, which Seawright (2014) identified as ‘camps’. Although there are many common traits associated with each of Liberal (LPBE), Critical (CPBE) and Indigenous PBE (IPBE), they have distinguishing features that are important to highlight. This section will map out these camps, starting with LPBE, which was the first camp of PBE to emerge in contemporary government K-12 education, before branching out into CPBE. Indigenous PBE is the longest-standing model of PBE, now represented most prominently through land-based education.

Liberal Place-based Education

Liberal PBE (LPBE) writing looks at the intersection of community and environment on a local scale. It considers education, particularly in K-12, advocating for exploration and

reconnection with nature. LPBE is closely linked to the work of Sobel (2002) and Smith (2004). In Smith's (2004) piece he refers to the field as aiming "to ground learning in local phenomena and students' lived experience" (n.p.). There are a variety of ways that the classroom educator can approach LPBE, including:

- Cultural studies: students and teachers "take as the subject of their investigations local cultural or historical phenomena directly related to their lives and the lives of their families [and] what they learn is closely tied to their own experiences, connecting them more directly to their place" (n.p.).
- Nature studies: an investigation of a local natural phenomenon and ideally restorative.
- Real-world problem solving: investigating and addressing school or community issues.
- Internships and entrepreneurial opportunities: which encourage learners to think through the connection between place and vocation and test it out during school through the creation of economic opportunities that "enrich communities and extend their roots more deeply" (n.p.).
- Induction to the community process: "drawing students not only into the economic life of their community but also into its decision-making process" (n.p.).

Liberal PBE tends to make an economic case for PBE, without due consideration of the historical events that led to settlement and exploitation of places. This is noted in Smith (2004) where he claims the aforementioned pedagogical approaches are 'transformative' because: (1) teachers and students use community as the foundation for curriculum development through inquiry; (2) that doing so leads to constructivist learning, where youth are the creators rather than consumers of knowledge created by others; (3) student-centered questioning is honored and leads to classroom learning; (4) teachers act as facilitators rather than teachers of knowledge; and, (5) that the wall between community and school becomes more permeable. LPBE does not critique the role of humans, settler-colonialism and capitalism, the exploitation and how these elements lend to exacerbating the human/nature divide but is more interested in community development and ecological restoration. It is evident that the field of PBE has moved on significantly from this frame of mind in the last twenty years.

Critical Place-based Education

Critical PBE (CPBE), or 'place consciousness education' offers a critique of capitalism and increasingly has drawn in concerns around white-supremacy and colonialism in the exploitation of Indigenous communities and natural resources (Barnhardt in Gruenewald & Smith, 2008). Like critical pedagogy, CPBE is informed by critical theory and the work of theorists from the Frankfurt School. Theodor Adorno, Max Horkheimer and Herbert Marcuse, drew on concepts of Marxism to develop critical theory as a tool for examining and deconstructing Western culture. Critical theory offers a framework for understanding how capitalism was developed and despite its repeated crises and inherent inequities remains a dominant economic system.

In the latter part of the 20th century, critical pedagogues such as Paulo Freire, Peter McLaren, and Henry Giroux have taken the work of critical theory and applied it to education. Amongst the claims of these critical pedagogues are that the institution of education is a tool of reproducing oppression. However, as a socially constructed institution, teachers as cultural workers (Simon, 1992) can in their own way create spaces of liberation for youth to see and act beyond the logics of capitalism and oppressive structures. Freire's (2011) work in *Pedagogy of the Oppressed* is a seminal text here, actively using places as sites of learner driven inquiry into structures of power.

Contemporary CPBE is driven by the work of Gruenewald/Greenwood (2003a; 2003b, 2009, 2013), of note the vital 2003 article 'The Best of Both Worlds: A Critical Pedagogy of Place'. The key intervention that Gruenewald (2003a) makes in this work is the connection between critical pedagogy and environmental education, where he challenges Eurocentric notions of place, drawing in elements of Freire (2011) and the critique of power structures, while also recognizing the connection that doing so can have on the natural world. A critical pedagogy of place aims to firstly, identify, recover, and create places that teach us how to live well in our total environments (where Gruenewald recalls Orr's (1994) notion of 'reinhabitation'), and secondly, identify and change ways of thinking that injure and exploit other people and places (which Gruenewald links to the process of decolonization) (2003a, p.9). A pathway for effective CPBE necessitates, "building long-term relationships with familiar, everyday places. The kinds of educative experiences students and teachers pursue depend on the distinctive characteristics of the places they inhabit, as well as on what learning objectives and strategies they employ" (p. 8). Gruenewald draws on the past work of Sobel (1996) who advocates for a place-based curriculum that begins with fostering empathy for the familiar before moving out toward exploration of the home range, leading to social action and reinhabitation.

Gruenewald's (2003a) notion of reinhabitation is a proposed pathway out of what Plumwood (in Hillier & Rooksby, 2008) calls 'disbelonging'. The symptoms of disbelonging include, "an active state or process of denying or rejecting certain kinds of origins and ties, especially ties to the earth and to the embodied and material realm – expressed especially in actively and systematically not seeing or crediting the context of the ecologically situated body" (p. 380). Plumwood (2008) expresses the link she sees between globalization and the instrumentalization of land as place in capitalism. Reinhabitation, informed by critical pedagogy is suitably characterized by an anti-capitalist stance.

In much the same way that critical pedagogues critiqued traditional modes of schooling removed from political thought and action, CPBE emerged as a response to the perceived 'romantic notions' of LPBE. CPBE claims LPBE depoliticizes place, failing to create space for the analysis of class and race for example, which often resulted from their white, rural and middle-class experience. Alternatively, Ball and Lai (2006) write that CPBE educators, remain attentive to the political geography of difference not only among places, but also within places. In this way, they make necessary space for critical multicultural and other anti-oppressive considerations in place-based approaches to learning. Furthermore, they

put a greater emphasis on the extent to which local socio-ecological conditions are constituted by larger-than-local historically contingent processes (such as capitalism). They suggest, then, a central importance even in place-based education for teaching and learning of critical tools for understanding and generating mechanisms for larger-than-local socio-ecological transformation (p. 270).

To cite one example of difference between LPBE and CPBE, is Haymes (1995) seminal text, *Race, Culture and the City: A Pedagogy for Black Urban Struggle*, which invokes the spirit of CPBE by focusing on black urban struggle through mental and physical decolonization, an analysis of myths/images of urban life and gentrification, creating and supporting spaces for black civil society to be enacted, and a politics of representation, including meanings of the black body in place and space in his pedagogy of place.

CPBE has played a role in shifting perspectives of the role of place in education as a decolonizing tool. Seawright (2014) states,

critical epistemic shifts can move conceptions of place beyond simplistic visions of geography and flattened understandings of the land or the environment to a point where the soil, streams, and multitudes of beings engaged in complex relationships can be seen on their own terms outside of economic utility (p. 556).

The increasing awareness and acceptance of Indigenous ways of thinking and acting in place by Western scholars has been part of this shift. To this we now turn.

Indigenous Place-based Education

Indigenous PBE (IPBE), what Seawright (2014) calls “the most long standing PBE tradition” (p. 561), is crucial to Indigenous ways of knowing and living. IPBE, which considers relationships with land, human and non-human relations cannot be extricated from broader Indigenous knowledge systems. Many Indigenous scholars draw elements of IPBE into their work, most explicitly Barnhardt and Kawagley (1999, 2005) and Cajete (1994, 1999). Unlike PBE, which is a way of changing Western approaches to learning, it is important to note Indigenous education approaches have inherent teachings about Land and relationality. Learning in place for First Peoples far preceded any institutional form of education; when Indigenous communities are granted sovereignty over their education systems, learning through and in place is part of reinstated as normative pedagogical practice (Cajete, 1994; Simpson, 2014).

Indigenous connection to land, and a deep understanding of the interconnected nature of the natural world is like Western science in that a system of laws are in place. However, these laws write Kawagley and Barnhardt (in Smith & Williams, 1999) are continually tested and adjusted by Indigenous peoples in the context of everyday survival. Against the discipline-centric approach of traditional Western education, Indigenous approaches to understanding place are holistic. Kawagley and Barnhardt (in Smith & Williams, 1999) identify how such an approach presents in four areas: (1) long term perspective (education must be understood and carried out across generations); (2) interconnectedness of all things (knowledge is bound to the context in which it is to be used and learned, and all elements are interrelated); (3) adaptation to

change (education must continuously be adapted to fit the times and place); and, (4) commitment to the commons (the whole is greater than the sum of its parts) (p. 134). Time spent in the place means the learner “is more likely to recognize how the various components relate to and depend on one another over time and across species” (p. 135).

Look to the Mountain: An Ecology of Indigenous Education by Greg Cajete (1994) is one of the most important texts on IPBE. Here Cajete indicates that place, the holistic composition of earth, natural and biosphere must be the primary focus for a ‘new kind’ of educational thought which can meet the challenges of the 21st century. A traditional Indigenous knowledge would do such and orients the learning process towards one informed “from direct interaction with the natural world” (p. 39) to engender an “appreciation and understanding [of the] place in which they live” (p. 24). “These foundations”, Cajete writes, “teach us that learning is a subjective experience tied to a place environmentally, socially, and spiritually” (p. 33). Cajete writes in depth on the connection between Indigenous knowledge and place, stating that after family, all learning must build a strong understanding of place of residence. Community, or place, is “that place in which Indian people talk about’ and is the place through which Indigenous people express their highest thought” (p. 166).

Cajete (1994) attends to the ongoing histories of settler-colonialism and ravages of displacement, stating:

American Indian people's inherent identification with their Place presents one of the most viable alternative paradigms for practicing the art of relationship to the natural world. American Indians have consistently attempted to maintain a harmonious relationship with their lands in the face of tremendous pressures to assimilate. Traditionally, Indian people have expressed in multiple ways that their land and the maintenance of its ecological integrity are key to their physical and cultural survival. The importance American Indians traditionally place on connecting with their place is not a romantic notion out of step with the times. It is rather the quintessential ecological mandate of our time! (pp. 81-82).

According to Indigenous scholars such as Cajete (1994) and Simpson (2014), there is no Indigenous education that does not build on the local, and all further learning is engaged with community, in concentric circles that move from the home out into the world.

More recently in Canadian scholarship, Simpson (2014) has done much to advance Indigenous ways of knowing in education. She writes of Nishnaabeg intelligence that is place-based and comes through learning both *from* and *with* the land (p. 7). Land, referred to as Aki, is *the* curriculum. Nishnaabeg learning is independent, rather than directed, and comes from observation of animals and humans, testing out ideas themselves, application of creativity to problem-solving (pp. 6-7). An understanding of place and oneself in it,

is derived not through content or data, or even theory in a western context, which by nature is decontextualized knowledge, but through a compassionate web of interdependent relationships that are different and valuable because of that difference. Individuals carry the responsibility for generating meaning within their own

lives – they carry the responsibility for engaging their minds, bodies and spirits in a practice of generating meaning (p. 11).

Simpson (2011) offers that it is through place learning that education can take steps to decolonize. For Simpson (2011, 2014), a PBE is core to the resurgence of Indigenous communities. Simpson (2014) writes,

We cannot carry out the kind of decolonization our ancestors set in motion if we don't create a generation of land based, community based intellectuals and cultural producers who are accountable to our nation's and whose life work is concerned with the regeneration of these systems, rather than meeting the overwhelming needs of the western academic industrial complex or attempting to "indigenize the academy" by bringing Indigenous Knowledges into the academy on the terms of the academy (p. 13).

At times PBE has been conflated with land-based education, which will be discussed below.

In summary, PBE is a relatively new approach to education that takes from an array of educational methods and theories. It also diverges between liberal, critical and Indigenous approaches. The three camps of PBE are not always distinct, but at times overlap. For example, many of the premises CPBE build on LPBE, and increasingly CPBE has adopted Indigenous ways of knowing and attempts to unsettle Eurocentric histories and visions for places (Greenwood, 2019). Likewise, relationship with place and local environment is foundational to IPBE and undoubtedly informs European understanding of place in North America in particular. What tracking the key attributes of these camps allows for is seeing how PBE has evolved over the last 30 years in North America. Liberal PBE first emerged in the latter part of the 20th century but gave way to a more critical approach to PBE, informed by Gruenewald's (2003a, 2003b) work in the early 21st century. In more recent years, critical PBE has been informed more strongly by Indigenous knowledge and perspectives. The section that follows will use these camps as a lens to critique three essential texts on PBE.

Essential Place-based Education Texts

PBE has received significant attention in educational research over the last two decades, which has included case studies, qualitative and quantitative analysis as well as three key texts that anchor the field. Those texts are *Place and Community-Based Education in Schools* (Sobel & Smith, 2010), *Place-Based Education in the Digital Age* (Gruenewald & Smith, 2010), and *Place-Based Education: Connecting Classrooms and Communities* (Sobel, 2013). What follows is a summary and critique of those essential texts.

Place Based Education (Sobel, 2013)

David Sobel's (2013) *Place Based Education* provides an excellent example of liberal PBE. Sobel (2013) provides an operational definition of PBE, that then leads into examples from the United States of how this has been put into practice in public education. Sobel's (2013) definition of PBE, is as follows:

Place-based education is the process of using the local community and environment as a starting point to teach concepts and language arts, mathematics, social studies, science, and other subjects across the curriculum. It emphasizes hands-on, real world learning experiences, this approach to education increases academic achievement, helps students develop strong ties to their community, and enhances students' appreciation for the natural world, and creates a heightened commitment to serving as active, contributing citizens. Community vitality and environmental quality are improved through active engagement of local citizens, community organizations, and environmental resources in the life of the school (p. 11).

What is important to note in Sobel's (2013) definition is the valorizing of ties between youth to the community and utilization of school for "community vitality and environmental quality" (p. 11). Despite proclaiming from the outset of the book that "the history, folk culture, social problems, economics and aesthetics of the community and its environment are all on the agenda" (p. 13), there is little evidence that critical pedagogy is present in a meaningful sense. Sobel confides that a critical approach to environmental work is a significant challenge to economically disadvantaged communities that rely on natural resource extraction to sustain employment. Furthermore, his examples - drawn predominantly from rural white settler communities in the Northeast of the United States - presented no examples that challenged the history of settler-colonialism, instead preferring to focus on the 'cultural heritage' of the region.

In some ways this is intentional. On one hand Sobel (2013) suggests a pragmatic approach to working with the community allows space for PBE to emerge and entrench itself in the school. On the other hand, he laments the shift in environmental education in recent years to "catastrophe education" and rather puzzlingly, calls LPBE a "more inclusive approach to environmental education" (p. 12). Evidently Sobel yearns to return to romantic notions of environmental education before humankind was presented with a superabundance of evidence of catastrophic biosphere systems failure (Wallace-Wells, 2019). We can further assume from this text that Sobel (2013) is less concerned with critiquing capitalism, speaking truth to power, addressing colonial violence or restructuring communities to mitigate and adapt to climate change. Telling passages that support this conclusion include: "we're not preparing students for tomorrow, we're preparing them to solve the problems of today" (p. 18), and "PBE works best when economic and environmental concerns are balanced" (p. 88).

Yet the LPBE approach contained in this work identifies important steps for educational reform. Sobel (2013) provides concrete examples of how to tie the community to classroom learning, the benefits of integrating curriculum and 'systems thinking', the beauty of 'emergent diversity' in curriculum over 'standardized monoculture' and what depth over breadth looks like in practice. There is also a significant contribution of how to harness the expertise from the community to support PBE - a paradigm shift which displaces the teacher into a space of inquiry facilitator.

Place- and Community-Based Education in Schools (Smith & Sobel, 2010)

A more nuanced perspective is brought by Greg Smith, who in collaborating with Sobel (2010) acknowledges the value of PBE for “preparation for a changing world due to climate change, economic globalization, and resource extraction” (p. iii). In this text, the authors chose to combine the similar approaches of both place-based and community-based education. Their operating definition of PBE reads as:

characterized by a focus on local knowledge, issues, and phenomena and is potentially relevant to all subject areas. It seeks to expand the range of adults who can serve as instructors and mentors and to build strong collaborative relationships between community members and their schools. Place- and community-based educators see learning about the local as a starting rather than ending point, but a starting point that remains significant throughout a child’s - or an adult’s - educational experiences. Finally, place- and community-based education often engages students in projects that require them to apply their knowledge, skills, and energy to community issues or problems. In doing so, it demonstrates to young people the value of their own efforts and helps cultivate a taste for civic participation (p. 25).

What differs in Smith and Sobel’s (2010) text over Sobel’s (2013) is firstly, a greater emphasis on adult mentorship and using the community as a starting point for exploration beyond the classroom, and secondly, to investigate and act on issues or problems. What remains is the commitment to interdisciplinary learning, community as classroom, role of PBE for developing an understanding of and participation in democracy, and the vision for PBE to lead community revitalization.

The target audience for the book is classroom practitioners, school leaders and the public. The approach Smith and Sobel (2010) take throughout is to unpack concerns around PBE, and to provide examples of its implementation, with ideas for how to navigate barriers that exist for PBE implementation. For example, the book begins with ‘five reconceptualizations’ of school that PBE can herald, including: (1) PBE as a catalyst for improving test scores; (2) PBE as a replacement to traditional pedagogy, rather than an addition; (3) PBE as more than just another form of environmental education; (4) PBE being effective for rural and urban schools; and, (5) rejecting the perception that PBE requires more time and effort from teachers to adopt. What is notable here is that Smith and Sobel (2010) are aware of the existing criticisms of PBE in schools, and how PBE (at least in some parts of the United States) is viewed as weak within the climate of accountability to standards and No Child Left Behind. As a result, Smith and Sobel (2010) have focused the content of the book in a way to ‘talk-back’ to these concerns.

The authors effectively make the case for learning that is situated as more meaningful to the child, and consequently, they suggest, meaningful learning is more engaging and leads to increased knowledge retention. But achievement, they caution is “only one piece of the puzzle” (p. 86). The achievement argument is made simultaneously with an economic one that favors PBE playing a role in community revitalization and how youth can find financial security in their community after graduation. As with Sobel (2013), the economic imperative runs deep

throughout Smith and Sobel's (2010) text, but it becomes clear that this is one driven by needing to speak to the audience, rather than being the primary concern of the authors. For example, Smith and Sobel (2013) state,

In focusing primarily on only one element of our life - the economic one - people in contemporary societies run the risk of failing to prepare the young for the forms of problem-solving, social commitment and imagination required to live not merely as individuals, but as members of interdependent communities (pp. 100-101).

It becomes clear to the reader that it is the environment and democracy that have been harmed because of the economic imperative consuming the United States over the last four decades is a concern that PBE can take on.

A notable shift is present in this text over Sobel's (2013) *Place Based Education*, that is the acknowledgement - though questionable application - of critical pedagogy as a valuable contribution to PBE, which

results in curriculum initiatives that focus on access to green-space as a social justice issue, homelessness, the bathrooms in substandard school buildings, learning the history of community vitalization, and including local African-American, Asian, Cape Verdean, and Hispanic artists in the art curriculum (p. x).

The taking up of issues such as green-space and homelessness are excellent examples of CPBE, but the inclusion and analysis of bathrooms and narrowing of non-White contributions to the curriculum in arts, is in my view stereotyping and limiting. The case studies detailed in the book are however from predominantly white homogenous communities in the Northwest and Northeast of the United States, which may have led to narrow conceptions of how PBE can effectively create space for marginalized voices and engage with culturally sustaining pedagogy (Kawagley & Barnhardt, 2005).

Of note is the case study that closes the book which the authors seek to demonstrate what full PBE implementation looks like. Vinalhaven, a remote, rural island community off the coast of Maine is presented as the model for transforming an under-performing school that was disengaged from its community. And while PBE was identified as the catalyst for the cultural transformation of the school and wider community, questions remain of the applicability of a rural, white and homogenous school to much of the K-12 experience in North America. A glaring omission from the text then, is considerations of settler-colonialism, the erasure of Indigenous place, and how this process has led to shallow notions on what place is, and what it can be. There is, I would argue, inconsistency between the author's ambitions to "help twenty-first century human beings find our way through the difficult dilemmas of the present to a more sustainable and equitable future" (p. xiii), and the case studies included in the text. However, what this text does demonstrate is the capacity for educators and educational leaders to shift how traditional schools are organized and what the purposes of education are, despite the challenges that doing so presents.

Place-based Education in the Global Age (Gruenewald & Smith (Eds.), 2010)

The edited volume from Gruenewald and Smith (2010) offers a spectrum of theory and practice from K-12 to higher education practitioners, most of whom have sought to ‘reclaim education’ for the local against larger forces that would design an education system for consumerism and workplace readiness. In doing so this work offers the most definitive guide to PBE to date. A thread of critical pedagogy underlies the editors and many of the authored writing in a way that Smith and Sobel (2013) and Sobel (2010) do not. This is highly evident in the repeated references by the editors and chapter authors to Indigenous and race-informed pedagogy. Gruenewald and Smith are explicit about the need for a critical pedagogy in contemporary education and frame its connection with place to ground “in concrete experience, experience that always takes place somewhere” (p. xxi). Gruenewald’s chapter (Chapter 7) adds that, “talking about the cultural construct of racism and poverty without talking about geography and environment is to abstract these concepts from where they have been constructed and experienced” (p. 145). By linking critical issues to place, educators can avoid abstractions and make content and action more meaningful through community experience.

High school teacher Elaine Senechal’s chapter (Chapter 5) on environmental justice effectively presents how this framing has unfolded in her practice. Senechal’s lessons adopted a class-based view of air quality in the Roxbury’s neighborhood in Boston, finding that private and public transportation traffic created reduced safe oxygen levels close to their school. By following policy decisions and lobbying government officials, they found that racialized working-class commuters in their area were denied access to speedy public transit, as opposed to wealthier white areas. Their presentations to lawmakers led to, in part, the exposure of corruption from one leading official, who after Senechal left the school, was removed from office. Senechal was proud to note that students in her Environmental Science class cohort went on to leadership positions and remained indebted to her mentorship informing their career paths. Senechal oriented her work around critical pedagogy stating,

I feel that we as teachers must become active in areas of social change. I have found that community-based learning is a tool for empowering students; it gives them the tools to organize and advocate for their rights. By taking on community projects that involve justice and equality, I am able to give students skills that will help them in their struggle for equitable opportunities in the society in which they live (pp. 108-109).

The pedagogy and content offered in Senechal’s chapter is an excellent example of the power CPBE can have on community improvement and impacting the trajectory of students’ lives. Yet, as research on environmental education suggests (Anyolo, et al., 2018; Edwards, et al., 2020; Lasen, et al., 2017), teachers sustaining such practice through personal and systemic hurdles can be a challenge.

Another valuable contribution to the literature on PBE in the text is from Cameron (Chapter 13) who offered insight into his PBE course for graduate-level teachers, and how adult learning through ‘place-retreats’. In his graduate course, Cameron predominantly focused on the ecological elements of the local community, including trees, plants and fungi, utilizing an

experiential approach that can be transposed to the K-12 classroom. Cameron aimed to instill a ‘place-responsiveness’ in educators, that could contribute to a wider place responsive society “in which its institutions and customs nurture and support a deep connection to place and land” (p. 288). Cameron framed the place retreats as an opportunity to unsettle histories of the land, which is done through Indigenous storytelling in different locales in Australia. In this way, Cameron’s chapter recalls the work of Chambers (2006) ‘The Land is the Best Teacher I Have Ever Had’.

The goals of the text, Gruenewald and Smith (2010) state in the ‘Afterword’ are: firstly, the reinvigoration of local communities for the present; secondly, the need for “responsiveness and adaptability to the local and global dilemmas that now demand our attention, intelligence and energy” (p. 345); and thirdly, as a form of resistance to the homogenization and standardization of education, manifesting as the de-professionalization and scripting of teaching, and the increasing emphasis on testing. In this sense, I would argue the book is a success, albeit one with a few areas worth analyzing more deeply.

Place-based Education: Pedagogical Intersections and Divergences

To briefly recap, this chapter began by outlining the historical lineage of PBE, before defining the three different camps that PBE theory and practice can now be categorized into. Using two of these camps as lenses, three essential texts in PBE were reviewed, which showed how Sobel, Smith and Gruenewald’s work provide different visions for PBE and case studies of how it has been put into practice today. In implementing PBE - whether LPBE, CPBE or IPBE - requires pulling on a diverse array of educational practices that inform the work of the PBE practitioner, namely: interdisciplinary and project-based learning, environmental, experiential, democratic, and commons education. Philosophically, PBE also aligns well with Indigenous ways of knowing. In the following section I will outline how other educational practices diverge and align with PBE.

Interdisciplinary Learning

In the early 1900s, educators such as John Dewey (1938/1997) and Alfred North Whitehead (1929) were making claims that segregating learning into subject area disciplines was not necessarily beneficial to learners. Contemporary writers concur with these early observations about the disadvantages of isolating disciplines (Drake & Reid, 2017) and strongly support a move to a more integrated curriculum (Drake & Burns, 2004; Ferguson-Patrick, Reynolds, & Macqueen, 2018). Topics and issues beyond the classroom walls are rarely able to be neatly divided into disciplines. The previous example of ‘the field’ offers one example. To give another example is water. While the chemical composition of water might fit into chemistry, its relationship with the world is biological, its behavior pertaining to physics, but the relationship of water to humans might draw in social studies, the understanding and explanation of it aligns with English language arts, controlling and managing it an understanding of architecture, engineering and mathematics. Engaging with the topic of water might allow opportunities for outdoor learning and physical education. There is ample opportunity to thread in Indigenous

understanding of and relationship to water. Sectioning off the topic into discrete disciplines binds and limits a holistic understanding of water. Tackling questions or opening opportunities for inquiry around water necessitates taking an interdisciplinary approach to learning.

Yet a series of factors combine that confine disciplines in the typical K-12 school. Those include government mandated time allotments for curriculum and learning outcomes aligning with a specific subject, teacher-candidates receiving post-secondary training that is often segregated by subject, and standard assessment practices in K-12 public schools require teachers to individually determine comments and grades pertaining to a specific discipline. This leads K-12 students to experience learning that is less holistic and topic-based and more fragmented as they move through early-years, to middle-years and into senior-years. Further, a learner may have a single teacher for a whole year at the start of their K-12 learning, and seven or eight different teachers in high school. Epistemologically, fragmentation of the school day does not present a true picture of reality and the method of addressing issues in the real world. Instead, it creates a disconnected curriculum where students from kindergarten to college perform 'daily feats of magic' by making sense of the knowledge and content presented in classrooms (Gardner, 1999). When disciplines become siloed, it means that drawing in elements of multiple curricula around single topics, inquiry questions or projects becomes more challenging.

Drake and Reid (2017) describe a progression of curriculum development through multidisciplinary, interdisciplinary and transdisciplinary approaches, with each stage involving fewer distinctions between subjects. For example, in a multidisciplinary approach the pupils are expected to make the connections among subject areas, like science and mathematics, themselves. The disciplines are connected through a theme or issue that is studied at the same time but in different classrooms. In an interdisciplinary approach the subjects are interconnected beyond a theme or issue and the connections are made explicit to the pupils. A transdisciplinary approach does not begin with the disciplines but begins from a real-life context. This would allow a topic such as 'water' to be examined considering the influence of social, political, economic, media, global, environmental, and technological aspects (Drake & Reid, 2017). PBE practitioners may approach integrations across the spectrum from multidisciplinary to transdisciplinary; finding a balance between bringing in valuable learning from multiple subjects but also being pragmatic around assessment and reporting expectations often leads PBE practitioners to land on an interdisciplinary approach (Venville, et al., 2002).

Project-based Learning

Project-based learning (PBL) takes the desire for integrating curriculum and provides a framework for facilitating teacher or student-led learning. PBL can take many forms, but is typically guided by an essential question, deep online or text research, connecting with experts and learning in the community. Rather than answering a test, PBL tasks learners with presenting deliverables throughout the unit, developing and fulfilling a community action project, or creating tangible final product and presenting their learning. PBL is possible in a single classroom, or as a whole school approach (Littky, 2004). In student-led PBL, the learner

develops a question that they pursue individually or in groups. The teacher shifts from explicit content delivery to the role of facilitator, but often still provides direct instruction to ensure that learners have the necessary skills to successfully complete the work.

Klein (2014) notes, “The problems of society are increasingly complex and interdependent, and they are not isolated to particular sectors or disciplines” (p. 517). This is a key motivation for teachers who utilize the PBL approach across age groups with a variety of disciplines (Henderson, 2019), as with those who seek a framework for scaffolding in a Freirean approach to learning (Freire, 2011). The possibilities of a PBE are significant for increasing relevance to the lives of youth and their community, and subsequently raising student engagement (Henderson, 2019; Larmer, Mergendoller & Boss, 2015; Littky, 2004). While PBE may not always include a project-based approach explicitly, many educators choose this approach due to the structural advantages that such a lens can provide for instruction, facilitation and assessment.

Environmental Education

A broad approach to education that seeks to make space for the non-human world, environmental education (EE) is defined by Stapp (1969) as “aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to solve these problems, and motivated to work towards their solution” (p. 34). Alampei and colleagues (2013) outline five elements that are often found in EE pedagogy, that it is: (1) interdisciplinary and holistic; (2) learner-centered and participatory; (3) value-driven, promoting critical thinking and exploring all stakeholders; (4) forward-looking, promoting medium and long-term planning; and (5) locally relevant. EE should strive to connect schools with local experts, scientific communities, the private sector, and non-governmental organizations.

A systematic literature review conducted by Edwards, et al., (2020) found frequent examples of systems thinking, futures (anticipatory) thinking, values (normative) thinking, strategic (action-oriented), collaboration (interpersonal), and problem-solving enacted within a constructivist framework as present in many EE approaches. In recent decades EE has branched out into different conceptualizations including more nuanced approaches to how the environment is understood and utilized as a lens for learning, many of which continue to hold these elements of teaching and learning. These include education for sustainable development (McKeown, 2013), ecological literacy (Stone, 2010), and ecopedagogy (Kahn, 2010), among others.

In some PBE practice these aspects of EE are seen too. Ardoin (2006) reviewed the sense-of-place literature and found it was comprised of three elements - sociocultural, psychological and political/economic - that all reside in the biophysical setting (p. 114) (what Basso (1996) calls the ‘stage’ (p. 115)). Too often PBE has focused on the biophysical, without due consideration of other elements (p. 120), which is also of concern to Basso (1996) who argues that different views of place will lead to different senses of place emerging between individuals. Ardoin (2006) also considers that PBE is at the core of EE, as “encouraging an emotional attachment to a place will lead people to care and learn about that place and,

subsequently, produce a desire to protect the place” (p. 119), leading them to argue for an integrated, holistic view of place, particularly as it applies to environmental education.

Gruenewald (2003a) makes explicit the links between PBE and EE, writing that, “In order to develop an intense consciousness of places that can lead to ecological understanding and informed political action, place-based educators insist that teachers and children must regularly spend time out-of-doors building long-term relationships with familiar, everyday places” (p. 8).

Experiential Education

In its essence, Roberts (2012) defines experiential education as “the belief in the educative power of experience, of direct contact, that becomes the warp thread linking the disparate strands together” (p.8). It is distinguished from experiential learning which is knowledge/skill acquired by instruction/study, and experiential education with purposes that go deeper (more constructivist) and creates the conditions for organic engagement in the material world. One way to think about it as teachers: ‘I did some Experiential Learning vs. ‘I do Experiential Education’.

The role of experiences in learning can be traced back hundreds of years. In the Romantic period, intellectuals such as Rousseau, Thoreau, Emerson and Muir were skeptical of modernity (order, calm, rationality, harmony) and human reason as the highest form of thought and instead sought to place a greater emphasis back on the senses and emotion. For example, Rousseau’s *Emile* (1762) offers a fictional account of a child protected from society (which was deemed corruptive) and who lived through experience, with Rousseau proclaiming that “Children must actively sense and feel their immediate surroundings and it is the educator’s job to provide the freedom necessary for the child to follow his or her natural inclinations” (p.33).

This orientation evolved into the 20th century. The philosophy of John Dewey is foundational to experiential education, in particular his short treatise *Experience and Education* (1938/1997). Here Dewey argued that learning must be drawn through experience and only through linking personal experience to theory can we have a true account of the world. The educator must be cognizant that experience happens through action or transaction, but to do so, learners need to be prepared for the experience, have the opportunity to organically explore within the experience and reflect on the experience.

Experiential education has a tradition rooted in the notion of education as a vehicle for social change (Breunig, 2008), and this began with the primacy that Dewey placed on education for being a tool for entrenching democracy, conceiving the classroom as a laboratory for experimenting in how individuals could live together in a society. So, when Dewey (1938/1997) wrote about educative experiences, he was arguing that these need to take place in and with the society, rather than isolated within the school. The scholarship on experiential education – particularly the work of Dewey (1938/1997), Roberts (2005), and Kolb’s experiential learning cycle (1984) has much to offer teachers in how to thoughtfully design and facilitate PBE.

Democratic Education

While experiential education thinks deeply about how people and places can be used to guide and expand understanding of the world, democratic education builds in this philosophy alongside considerations of the role of classroom learning too. Apple and Beane (1995) define a democratic school as,

one that is involved in finding practical ways to increase the meaningful participation of everyone involved in the educational experience, including parents, local residents and especially the students themselves. From their experiences, we can see that this goal is attainable through the creation of learning communities within each school and between the school and the larger community (pp. 101-102).

Inherent in this definition is the importance of connecting learning in the school to the broader geography of its location, and the importance of dialogue between the classroom and community members; these are all important facets of PBE.

Westheimer (2015) spent extensive time studying citizenship education in the K-12 system to answer, ‘What kind of citizen do we need for a democratic society?’, broadly categorizing the experiences of students into three categories: the ‘personally responsible citizen’, the ‘participatory citizen’, and the ‘social-justice oriented citizen’. The ‘personally responsible’ citizen obeys laws, picks up litter, pays taxes, is honest and responsible - essentially guided by obedience. The ‘participatory citizen’ is active in volunteering, understands government systems, and organizes community improvement. The ‘social-justice oriented citizen’ is more adept in both critical thinking and action based on that reflection. This latter type of citizen is most closely related to Freire’s (2011) notion of praxis - a translation of theory into action - with specific emphasis on a critical approach and critique of power (p. 39). Westheimer (2015) contrasts these practices of citizenship suggesting that the ‘participatory citizen’ may organize a food drive, the ‘responsible citizen’ donate food, and the ‘social-justice oriented citizen’ ask why people are hungry and act on what they discover (p.41).

The fulcrum from which Westheimer (2015) advocates teachers design learning experiences is to bring their learners from awareness to action. Political theorist Henry Giroux (2017) echo’s Westheimer’s idea, claiming that youth must expand their dreams and think about what it means to build a future marked by a robust and inclusive democracy. In doing so, they need to embrace acts of solidarity, work to expand the common good and collectivize compassion. Such practices will bestow upon them the ability to govern wisely rather than simply be governed maliciously.

Scholars of PBE often invoke the need to include youth in their communities as part of strengthening or rebuilding democracy (Smith & Sobel, 2004; Sobel, 2013). This is because the fundamental characteristics of PBE, such as learning about community and environmental issues, dialoguing with community members and experts, and taking action to solve problems are important characteristics of citizenship and democracy. As research on the impacts of PBE practice has noted, PBE approaches to learning have demonstrable impacts on students’

citizenship, stewardship and understanding of democracy (Chawla & Flanders-Cushing, 2007; Hamilton & Marckini-Polk, 2023; Ontong & Le Grange, 2015; Oonk et al., 2017; Sturrock & Zandvliet, 2023).

Commons Education

The story of the commons today in North America, dates to the enclosure movement in the United Kingdom between the 15th and 17th century. Landlords who had for generations governed the turf for which peasants had farmed, gradually began closing off these pastures and grazing sheep (De Angelis, 2014). The rising incursion of the market into the public sphere correlates with a shift from the commons ground to monetized ground. The challenge we face today, Bollier (2014) considers, is that many have lost touch with the idea of the commons, but “by naming it, we can learn how to reclaim it” (p. 3).

Just as the historical commons were where humans could “gather what the land provides and sharing (sic) in the manifold tools, fodder and fuel it provides” (Korsgaard, 2019, p. 447), so too can the commons be a place to hear, see, think and do. For Korsgaard’s (2019) the contemporary commons,

as social relations and as production of common values, sustenance and artifacts are created through interaction and cooperation. Commons and communing are *spaces in which* to be together and *ways of being* together in the world, outside the realm of marketisation and ownership. They are spaces and ways of being that insist on a shared common world, which is not ours to exploit and destroy, but to protect and preserve, while living sustainably off the values it offers (p. 448).

Korsgaard’s understanding of the potential of utilizing a public place builds off De Lissovoy’s (2011) three ways in which learning through public education pairs well with the commons. Firstly, De Lissovoy (2011) identifies education as a crucial period in an individual life in which collective experience can be arranged, and therefore we should consider it also an opportunity to experiment with how citizens might construct and maintain a collective identity; secondly, that this act presents the foremost moment from breaking the dominant cultural tendency for atomization and self-interest; and thirdly, that these processes, continually evolving, have the potential to “imprint themselves on the emerging common as part of its essence” (p.

1129). Monbiot (2017) writes that,

a commons, unlike state spending, obliges people to work together, to sustain their resources and decide how the income should be used. It gives community life a clear focus. It depends on democracy in its purest form. It destroys inequality. It provides an incentive to protect the living world. It creates, in sum, a Politics of Belonging” (pp. 95-96).

More recent scholarship from Taylor (2023) has linked the erasure of the commons to an increase in insecurity.

The commons is shared ground, space and dialogue. It can emerge in all communities as a location in which a gathering of two or more people converses in a contextually relevant place

for an exchange of knowledge. Writing on the role of the commons in education, Martusewicz and colleagues (2011) define it as a space that is not owned and does not require money to be accessed (p. 212). For educational purposes, the commons is a place that becomes occupied by a group of students, they may begin this occupation with an engagement of the senses, draw in their prior experiences in the space or prior knowledge of the space, its history and present use, and through invitation or solicitation of those who enter the space, dialogue with others, experts or not, through the problem-posing framework of education. Slater (2019) calls this process an ‘intellectual exchange’ - “central to the task of communing educational theory” (p. 560). In this way, the commons are another way of thinking about place, and by extension how it might be a place of learning.

Of all the aforementioned pedagogical approaches to learning outlined so far, commons education is the most closely connected to PBE. Like PBE, commons education seeks to situate learning beyond the school walls and engage in local democracy and is primarily an action-oriented project involving intellectual exchange in shared space. Commons education pulls on commons in a historical and cultural context (Hardt & Negri, 2009), it places more emphasis on collaborative learning and reclamation of space from private enclosure than PBE (Korsgaard, 2019), although both foci can be present in PBE.

Indigenous Ways of Knowing

Many educational authorities in colonized nations are looking to undertake curriculum reform that centers Indigenous ways of knowing, which are increasingly viewed as not just good for Indigenous learners, but for all (Kairos, 2018; Howe, Johnson, & Te Momo, 2021; Patrick, 2016). As Chrona (2022) writes, “prior to colonization, [Indigenous] education was relationship driven and connected to the land. It was complex, learner-centered, and rigorous; it valued authentic learning experiences and was contained with the Indigenous languages spoken across the land” (p. 116). For example, an Anishinaabe education is one that sets the goal of ‘mino pimatisiwin’, or *living the good life*, as one that brings well-being not to oneself, but as a collective. To do so demands knowing the place in which one comes from and how to live well together in that place (Landry et al., 2019). As many Indigenous scholars have argued (Alfred, 2005; Battiste, 2013; Coulthard, 2014; Simpson, 2011) language and land were the two pillars on which Indigenous learning was based, and to which it must return.

Across Canada there has been a resurgence in interest from Indigenous and non-Indigenous scholars and practitioners in land-based education (LBE), including in Winnipeg (Anderson, 2024; Macintosh, 2024). This approach to teaching and learning is heavily informed by traditional Indigenous ways of knowing and being and deeply connects to the historical and cultural traditions Indigenous peoples have with land and place for centuries (Bowra, et al., 2021). But despite both LBE and PBE both seeking to link what and how young people learn with the cultural, environmental, historical context of where they reside, looking to situate learning outdoors and offering meaningful connection to community, LBE differs from PBE in that it explicitly seeks to draw in language and spiritual practices for a holistic approach to

education. Like Cajete (1994) argued, Land is the foundation from which all Indigenous learning is built.

What is vital to understand is that although PBE and LBE share some common characteristics, they are distinct epistemologies with different roots, conceptual approaches, processes and outcomes (Twance & Burton, in press). Conflation, co-opting and recolonization of land-based education is a reality in part due to the drive of efforts by non-Indigenous educators to do the important work of Indigenous education, owing to the lack of clear definition between land- and place-based education (Stansberry, et al., 2023), or, as a ‘move to innocence’ from non-Indigenous educators to absolve themselves of the history of genocide against Indigenous peoples (Tuck & Yang, 2012). As LBE includes traditional practices that are often sacred traditions, stories or knowledge, they are often shared by elders or through familial ties, derived from lived experience of living on and with the Land (Cluderay, et al., 2022).

Formal and informal learning spaces that engage youth in LBE are specific attempts to decolonize and Indigenize the processes by which teaching and learning occurs (McDonald, 2023). These are informed by Indigenous traditions, and not, as in the case with critical PBE, European-based critical theory (Tuck, McCoy & McKenzie, 2016). In Manitoba, this has most clearly been outlined in *Wahbung* (1971) and the recently published *Wahbanang* (2021), two publications from the Manitoba Indian Brotherhood, based out of the Turtle House Central House of Knowledge in Manitoba, and represented by elders and chiefs from the Anishinaabe, Ininiwak and Dakota Nations. In *Wahbanang* (2021), the elders who met, discussed and published their views on the ways forward for Anishinaabe resurgence offering a road map for Indigenous resurgence and resilience. Land and the connection that their people and education system must have with it, was central to the framework. It stated that land-based learning was a responsibility, as it “holds the connection to the source of all our life and teachings... to listen to the land and to follow the guidance we receive through our spiritual connection with her” (pp. 84-85). There are recent developments in land-based education coming from the Manitoba Métis Federation who have partnered with the Louis Riel Institute to develop their own land-based learning program for Red River Métis youth.

A Note on Terminology: Decolonization

Questions of validity to the Canadian context can sometimes emerge with educational theory and practice based on research originating in the United States. One such concern emerges with Gruenewald’s use of the term ‘decolonization’. Throughout Gruenewald’s past work (2003a, 2010, 2019) and in Chapter 7 of his co-edited book with Smith (2010), Gruenewald’s notion of CPBE aimed to meld the social aspects of critical pedagogy with the ecological aspects of environmental education, and in doing so framed the goals of CPBE as decolonization and reinhabitation. Decolonization is defined by Gruenewald as “undoing the damage of multiple forms of oppression” (p. 149), which creates openings for inhabitation and “learning how to live well together without doing damage to others” (p. 149).

One of the most influential works on decolonization in education is Tuck and Yang's (2012) 'Decolonization is not a metaphor', where the authors critique the notion of 'decolonization' as it is too frequently adopted by white scholars as a series of 'moves to innocence', or a way to rush towards removing a sense of guilt or haunting the surviving 'Indian'. Heavily referencing the work of Fanon (1963), Tuck and Yang (2012) present the moves to innocence as: settler nativism; fantasizing adoption; colonial equivocation; conscientization; at-risking/asterisk-ing Indigenous peoples; and reoccupation and urban homesteading. Tuck and Yang (2012) present these 'moves' to highlight "those strategies or positionings that attempt to relieve the settler of feelings of guilt or responsibility without giving up land or power or privilege, without having to change much at all" (p. 10) and restate the claim that decolonization "specifically requires the repatriation of Indigenous land and life" (p. 21). Tuck and Yang's (2012) rhetoric might well be aimed at scholars such as Gruenewald and his application of decolonization, which used in an educational context remains far - though not impossible distances - from putting Land back into Indigenous governance and sovereignty.

This application of 'decolonization' in PBE becomes complicated when Indigenous scholars frame their practice in these terms. For example, Barnhardt (Chapter 6) (in Gruenewald & Smith, 2010) focuses on the decade-long efforts to restore the presence of Indigenous knowledge systems in the curriculum of Alaska. This process, he writes, "shifts emphasis from teaching about culture to learning through culture as students learn about the immediate places they inhabit and their connection to the larger world within which they will make a life for themselves" (p. 113). Barnhardt emphasizes a knowledge stream that braids Indigenous and Western learning (akin to Battiste's (2013) notion of 'trans-systemic knowledge') and identifies four elements of this practice: (1) the use of the local environment and cultural resources; (2) youth working alongside elders; (3) community evaluation of learning; and (4) utilization of 'cultural atlases' for community specific knowledge. What should be emphasized here is that the goals of Indigenous education in Alaska are no different than those of PBE - that is, to utilize the community as classroom as a tool for making learning more meaningful to youth and strengthening relationships of knowledge and care between young people and the places in which they live, for the present and future.

A secondary definition of decolonization offers a more nuanced conceptualization than Tuck and Yang's (2012). Tuhai-Smith (2012) considers decolonization, "once viewed as the formal process of handing over the instruments of government, is now recognized as a long-term process involving the bureaucratic, cultural, linguistic and psychological divesting of colonial power" (p. 98). This is a definition more aligned with the vision proposed by Gruenewald (2003a) - and fits well with the examples such as Barnhardt or Sorensen's in the Gruenewald and Smith (2010) text. Exploring the question of whether CPBE as undertaken by settler teachers can be deemed as 'decolonial' or 'Indigenizing pedagogy' is an interesting area for future research. That CPBE is a pedagogical approach to learning that can meaningfully engage with a response to the call for decolonizing education lends itself to broader aims beyond just curriculum reform.

Critiques of Place-based Education

The increase in scholarship on PBE, particularly following Gruenewald's (2003a) text on CPBE, in turn drew attention from scholars in fields such as environmental education and Indigenous education, who have over the last twenty years discoursed over the merits and challenges of PBE. Some criticism has emerged, which has generally fallen into three camps: 1) challenges to implementing PBE in K-12 classrooms; 2) from Chet Bowers (2008) critique targeted at Gruenewald (2003a); and 3) Indigenous scholars who claim that as a Western epistemology PBE is rooted in settler colonialism. Below these critiques will be presented and complimented by personal dialogue.

Challenges to Implementing Place-based Education in K-12 Classrooms

Throughout the literature and even through successful case studies, authors noted a series of barriers to facilitating PBE (Anderson, 2017; Gruenewald, 2003; Showalter, 2013; Smith, 2007; Vander Ark, Liebttag & McClennen, 2020; Winters, 2022; Zimmerman & Weible, 2017). While not exclusive to PBE, these included:

- Financial: Inability to access funds for bussing or entry to museums and galleries.
- Safety: Taking groups of students into natural or urban environments that teacher and or students may be unfamiliar with.
- School location: Accessing what is deemed appropriate sites for PBE.
- Skills: How to work with learners to develop units of inquiry; how to design teacher-led exploratory units; how to connect curriculum outcomes to projects; how to assess projects.
- Support: Including adult supervision, school leadership, community and parents for PBE.
- Student interest: Preference for direct instruction, lacking interest in community.
- Time: In the school day and year, amongst other school, Division or Provincial educational priorities (including examinations); time in the school day, particularly at the senior years where subjects are siloed into 4, 5 or 6 period days, which limit timeframe for leaving the school.
- Workload: Teachers feeling the pressure of workload and being unable to reconceptualize or alter their practice towards non-traditional methods.
- Confidence: Connected to workload; teachers feeling that they cannot meet expectations of themselves or others; this extends to confidence in dealing with controversial topics.

Indeed, a few of the above barriers are ones that I have faced as a classroom teacher. In addition, PBE is most often facilitated by teachers using a project-based or inquiry approach that is either teacher-led or student-led within topical boundaries; research has shown that these are effective methods for PBE (people, organizations and ecological spaces), but learners may feel stifled that barriers are erected that contain their research to their neighborhood. For example, there may be some topics of interest to learners that are not able to be explored due to safety, communication or geographical limitations.

PBE scholars often take for granted that all students have an interest in learning more about their community than the world beyond it. Some students, writes Winters (2022), could see their education as an opportunity to escape to ‘somewhere else’ and may find local learning tedious and limiting. Conversely, as Zimmerman and Weible (2017) suggest, due to the critical approaches to investigating community issues, PBE boosters may ignore the potentially harmful impacts of negative self-perceptions that may emerge in students when uncovering and studying issues central to their community or perpetrated by people, organizations or businesses in which students have personal connection to.

Depending on the community, drawing in critical approaches to PBE in today’s political climate presents risks. When first outlining CPBE twenty years ago, Gruenewald (2003a) cautioned that “it would be difficult to underestimate the messy complexity of these politics” (p. 11) and today that might be truer still. Back to the basics and parental rights movements are gaining increasing traction in Canadian public education, and public educators need to be mindful of navigating this emerging reality.

PBE is part of the ongoing debate that swirls around global citizenship education (Heater, 2004; Nussbaum, 2002) in which citizenship and the commitment to each other in a community, is stretched to international civilization (Schattle, 2008). Indeed, to take the example of Manitoba social studies curriculum (2005), topics begin in the early years focusing on the local community, before gradually moving outwards into the world, before oscillating back and forth between geography and history. Global citizenship certainly has important contributions to the development of curious, open-minded and extended thought and action of care (Kornelsen, 2014), but not at the cost of understanding deeply the place in which one lives (and, more likely than not, will live for the rest of one’s life). Where should the focus of learning in a globalized world lie? This is a question that PBE practitioners need to reckon with.

PBE practice demands teachers reconceptualize what is taught and how it is taught. This should not be separated from the wider scholarship emerging on teacher well-being. Teacher workload is increasingly leading to burnout and teachers leaving the profession in Canada and have been exacerbated since post-Covid-19 (Sokal, Trudel & Babb, 2021; Sokal & Trudel, 2022). Due to the implications that PBE utilize the community as classroom, teachers adopting PBE into their practice may need to unlearn and relearn what it means to teach, assess and interpret curriculum, making PBE a potentially demanding practice for teachers. Smith (2007) writes that PBE teachers must be brave enough to overcome the boundaries of traditional teaching, and they must be able to deflect the pressure to focus on the basics of a discipline and in districts that require it, preparing learners for standardized tests. Teachers who seek to adhere to government mandated curriculum may find that there are few opportunities to use the local to meet outcomes, which is particularly prohibitive if confronted with standardized exams. Although it should be emphasized that PBE should be conceived of as a foundational rather than additive (Smith & Sobel, 2010) pedagogical approach to teaching and learning, whereby PBE replaces traditional models of teaching (direct instruction, reliance on textbooks, testing, remaining in the classroom for learning), despite perceived benefits, it may still seem an

unattractive proposition to shift so significantly away from traditional teaching norms, or what Tyack and Tobin (1994) call the ‘grammar of schooling’.

Logistical hurdles for effective practice are present too. Large blocks of time are more conducive to leaving the school for community-based learning. While this is possible in early-years or middle-years schools where a teacher has students for a half or full-day, in the typical high school where a student might be in four or five different classes with different teachers a day, this poses a significant challenge to the PBE practitioner. As noted, a characteristic of PBE is that it integrates multiple disciplines into larger projects - taking a siloed approach, particularly in the senior years with more narrow topics may be difficult. In this way, PBE, like environmental education, does not neatly align with the organization and course offerings in many Western K-12 schools. For example, Showalter’s (2013) interviews with senior years mathematics teachers found mixed experiences with a PBE approach, with statistics being easier to integrate than other areas of the curriculum, which suggests a pragmatic over dogmatic approach could make PBE mathematics possible.

Are these barriers to adopting a PBE practice worth the time and effort to work through? Multiple empirical studies have shown that a PBE approach can have a positive impact on students, teachers and the community. These outcomes can be broken down into academic, personal growth, citizenship/stewardship, community benefits, and shifts in settler knowledge and attitudes towards settler-colonialism. Table 2.2 breaks down qualitative and quantitative research on K-12 schools that have PBE approaches.

Table 2.2

Studies Identifying Benefits of Place-based Education

Academic	Akkaya-Yilmaz and Karakus (2018) study on pre- and post-assessment, with a direct instruction control group and PBE led experiment group found statistically significant increases in learning outcomes for the PBE experimental group.
	In a review of four place-based pilot programs in the United States, Powers (2004) found that for teachers who sought to undertake an interdisciplinary approach to learning that PBE effectively supported this work. For students, findings of note were that student engagement and academic competency increased, and that this was more significant with students diagnosed with learning disabilities.
	The positive impacts of place-based learning extend beyond inquiry and the natural environment and into direct instruction. Asakle and Barak (2022) found that ‘location-based’ learning of Newtonian physics had a significant

	impact on students' ability to generate and answer scientific questions with deep explanations and connect physics knowledge to everyday life. Similarly, Engels, et al. (2019) findings of a year-long mixed project-based and place-based approach to science through watersheds learning resulted in increased confidence and competency with scientific literacy.
Personal Traits	Ernst and Monroe (2004) found that a PBE approach led to increased evidence of critical thinking, responsibility and self-efficacy skills in high school students. Results of this study were replicated in findings by Akbas and Cakmak (2019).
	Athman and Monroe's (2004) report on the implementation of a PBE programme in 11 high schools across Florida (USA), in which 400 students in Grades 9 and 12 participated found effects of place-based learning on students' motivation, critical thinking skills and connection to the community improved. Empowerment and pro-environmental behavior were noted in Ceasar's (2012) study with disadvantaged youth.
Citizenship and Stewardship	Ontong and Le Grange (2015) found an appreciation of the aesthetic environment, a strong attachment to the places where they live, and the nurturing of social relationships with neighbors in middle years students who were supported by the researchers working alongside their classroom teachers.
	Chawla and Flanders-Cushing (2007) meta-analysis concluded that when age-appropriate pedagogical experiences are present, youth can become more engaged and empowered citizens, individually and in groups particularly as it relates to the realized potential for social justice and environmental change.
	Sturrock and Zandvliet (2023) conducted a longitudinal study where citizenship education was situated in place. The researchers concluded that the learning environment (place) and citizenship outcomes were closely linked and stable over time (five and eight years).
	Hamilton and Marckini-Polk (2023) found that "when students perceive that they have opportunities to make choices and share ideas when engaged in PBE, they are more likely to see direct connections between PBE-based learning and the ways their stewardship endeavors can and do positively impact their local community and environment" (p. 1). Likewise, as Oonk et al. (2017) found, locating climate change learning in the local environment was the key to increased interest, engagement and knowledge for middle and senior year students in their study.

Community Benefits	The community of which PBE is enacted also stands to benefit from PBE. Johnson, Duffin, and Murphy (2012) surveyed 54 projects across the United States that focused on community air quality. They detailed three findings: air quality had improved over the course of their projects; most (89%) of the programs studied took some sort of action to improve air quality; and programs reporting more place-based learning qualities and practices such as service-learning and community partnerships were more likely to report improvements in air quality.
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Bowers' (2008) 'Why a Critical Pedagogy of Place is an Oxymoron'

In 2008, Bowers submitted a strong take-down of Gruenewald's (2003a) 'The Best of Both Worlds: A Critical Pedagogy of Place' entitled, 'Why a Critical Pedagogy of Place is an Oxymoron' to *Environmental Education Research*. The journal editors published a special edition featuring Gruenewald's (2003a) original text, Bowers' (2008) article, a rebuttal from Gruenewald (2008), as well as papers critiquing PBE from Gregory Smith, Robert Stevenson and Marcia Mackenzie. There are three elements in Bowers' (2008) piece that I wish to draw attention to. Firstly, that by adopting some of the practices that Bowers advocates can in itself be a re-colonization of Indigenous culture; secondly, that the attack conveyed a selective reading of critical pedagogy and a misreading of CPBE (Gruenewald, 2003a); and thirdly, the path Bowers took in attacking Gruenewald (2003a) and other critical pedagogues work results in an alienating rather than generative outcome.

Bowers' (2008) reproach of Gruenewald (2003a) fits with his continued rejection of critical pedagogy. Over thirty years Bowers has railed against the theory of Paulo Freire, Peter McLaren and Henry Giroux to the extent to which Gruenewald (2008) called it a "dogged fixation" (p. 337). Bowers' concern with these authors is the determination for a universal approach to transforming education oriented in a Western imperialist standpoint. Such an approach is invalid, Bowers asserts, because it fails to adequately ground itself in the traditional culture of that place, instead falling fowl to 'abstractions' (p. 333) that are full of assumptions that perpetuate a "colonizing agenda" (p. 334). That critical pedagogy is a Western construct driven by a desire to 'transform' the cultural foundations of life, is problematic, Bowers argues, as there are already sound cultural practices in existence that need understanding and adopting.

Bowers (2008) is particularly vexed by the lack of attention critical pedagogues pay to transforming the curriculum as written into one more aligned with the needs of communities and ecological boundaries, to the extent that he specifically advocates for readers to "avoid embracing" CPBE (p. 325). Instead, readers are reminded by Bowers of his 2006 work on the cultural commons as the *correct* theoretical approach, as it is claimed to be more attuned to the needs and realities of what Bowers calls, the 'cultural commons'. Within this approach Bowers (2008) calls for a reorientation of Western culture back to many practices of the commons, while keeping more contemporary life sustaining practices and expresses strong sentiments towards the

need to protect and strengthen the commons. Bowers (2008) offers Geertz's (1973) notion of 'thick description' as a tool for deep investigation into the root metaphors that (mis)guide cultural thought and action.

I see Bowers (2008) critique as a selective reading of critical pedagogues understanding of how hegemonic power prevents the sort of radical transformation of curriculum needed (and hence their encouragement for classroom teachers to become 'cultural workers' (Simon, 1990)), orienting their practice towards critical pedagogy despite systemic efforts to curtail them. Engaging in the work of critical pedagogy, much like CPBE, is highly contextual, and further, prescriptive scholarship on how to draw into the classroom is problematic. Case studies, such as that offered by Senechal (in Gruenewald & Smith, 2010) provide strong examples of important CPBE teaching based on the social and ecological conditions of that place. The collective tarnishing of all critical pedagogues as all advocating identical approaches might well be the 'thin description' of the field to which Bowers (2008) proclaims to be resisting.

Bowers (2008) appears to be advocating for the settler educator to engage in first excavating, then understanding and finally adopting Indigenous knowledge and practices. While this may indeed be beneficial for social and ecological sustainability (Dhillon, 2022), it may be not just interpreted as, but become a form of re-colonization, rather than decolonization (Tuck & Yang, 2012). There is a line that educators need to walk in which they are actively reflecting on what they teach and how they teach it to attend to the taken-for-granted epistemological and ontological assumptions baked into western education, without appropriating pedagogies and practices that are not theirs to claim.

I agree with Gruenewald (2003a) when he argues that critical pedagogy can provide important tools for understanding the root causes of issues before deciding how to organize and act, including, but not exclusively in what Bowers (2008) defines as the commons. PBE scholars, as I have detailed earlier, engage in "an immersive, deep learning environment that places students at the center of their cultural heritage, history, and landscape, by using the experiences offered by the context" (White & Reid, 2008), so that youth may learn to live well in place (Gruenewald & Smith, 2010, p. viii). In (rightly) pointing out the problem that critical pedagogy may be used as a universal application of addressing oppression, Bowers (2008) has dismissed the important contribution that Gruenewald (2003a) makes in moderating and applying it as a useful tool for understanding place in CPBE.

I posit that critical pedagogy operationalized through CPBE can offer settler educators the tools for analysis of current practices within a space, without veering into cultural appropriation. To quote Bowers: "if science and environmental educators adopt a pedagogy based on a critical pedagogy of place, they will be dealing with cultural issues for which they have little or no understanding" (pp. 331-332) - surely this would apply even further to a settler-educator attempting to apply Indigenous knowledge and practices to their work? Maybe a more appropriate option would be for settler and Indigenous educators to utilize culturally appropriate pedagogies based on their cultural context that each work towards common aims?

Analyzing Bowers' (2008) concerns with CPBE reveals differences in pedagogy and practice, but ones in which I do not see significant or insurmountable differences to the extent that Bowers suggests. Indeed, the theoretical approaches complement each other. Bowers (2006) defines the commons as “an environment that is available for use by the entire community” extending beyond the natural elements (rivers, forests, animals, plants) and into cultural components such as language, story, identity, norms and structures - in essence, “every aspect of the human/biotic community that has not been monetized” (p. 2). Scholarship on commons education has theorized and offered case studies that align with Bowers (2006) vision of utilizing the commons as sites of investigation and action (De Lissovoy, 2013; De Lissovoy, Means & Saltman, 2015; Korsgaard, 2019; Means, Ford & Salter, 2017). Yet, PBE, including liberal, critical and Indigenous camps, use the natural environment and include considerations of cultural elements (Ardoin, 2006; Barnhardt & Kawagley, 2005; Barnhardt in Gruenewald & Smith, 2010; Gruenewald & Smith, 2010). Where commons and PBE diverge however, is that PBE broadens the canvas of what is conceived as locations for learning, extending into commerce for community revitalization (Sobel, 2013) and particularly in CPBE seeks to engage with structures of power, sometimes in government, sometimes in the private sphere to understand and act (Gruenewald & Smith, 2010). While Bowers (2006) notion of the commons may be more specific than PBE, I would argue that pluralities of place which include the commons provide more freedom for teachers and youth to tailor their learning towards specific needs and interests in their community. Not everything that could or should be open to questioning, investigation, analysis and action in a place can be tied to the commons.

Bowers (2008) makes a number of important points in the article that certainly add to the discourse on PBE. Namely, I value Bowers' (2003) notion of ‘conservatism’ to mediate the ‘transformative’ goals of critical pedagogy as part of a project of decolonization. Conservatism, he defines as ‘what we choose to keep, and what we leave behind’ (Bowers, 2003). Yet the aim of Gruenewald’s (2003a) CPBE is to use the tools of critical pedagogy in application to the environment in a localized context. Practices that live in harmony with the natural world - that is, “intergenerational knowledge, skills and patterns of interdependence and support that can also be understood as traditions” (Bowers, 2008, p. 328) - do exist, but they are marginalized and constantly under threat (a point that Bowers would agree with). A critical pedagogy that is understood and enacted well - which I think CPBE has the potential to do - would not dismiss already existing perspectives and actions that can support life sustaining modes of living. There are many ways that this can be enacted in K-12 education if students analyze the intersection between environment, economy and health and well-being in their community. Gruenewald (2008) acknowledges this point explicitly in his rebuttal, and in his original text Gruenewald (2003a) states that by centralizing a place in an educator's planning and teaching, they can narrow down the history and issues of specific race, genders and class - “a deep critical reflection and dialogue that form the foundation of critical pedagogy” (p. 10). As if to emphasize this point, Gruenewald and Smith’s (2010) edited book, *Place-Based Education in the Global Age*, which,

though in-press at the time of Bowers (2008) critique, provides an array of examples that implement learning specific to the cultural and ecological issues of a community.

To return to a point Bowers (2008) makes cautioning against science and environmental educators who adopt CPBE as, “dealing with cultural issues for which they have little or no understanding” (p. 332), I think it is unfair for Bowers to assume that educators cannot develop a deeper understanding for the place they live in and do this alongside their learners. A norm of CPBE is getting outside of the school, into the community, and engaging with community members with lived experience who can provide authentic voice to a community but ensuring that this is undertaken with acknowledgement of their positionality. Though possible, it is hard to envision effective social or ecological research that informs action without sourcing expertise from people in the community. Indeed, this is a point, which although is not mentioned in Gruenewald’s (2003a) article, is present in many works on PBE (for example: Smith & Sobel, 2010; Sobel, 2013).

A final point I feel necessary to emphasize regards Bowers language. It strikes me as highly unusual for authors, particularly those who have so much in common with their philosophical orientations and aims for their writing to publish such visceral attacks on their peers, particularly when (in my view, and shared by Gruenewald, Smith and Stevenson in the Journal) there is indeed so much in common between the two approaches. In my view, it violates the spirit of discourse as generative for both academics and classroom practitioners to develop their own views on how best to think about the work, and in this case, engage in teaching practice. This is underscored when reading McKenzie’s (2008) contribution for the Journal, offering a much more nuanced and appropriate addition to Gruenewald (2003a). Here, she suggests broadening what is defined as CPBE beyond the school day and considers the ways in which young people might engage in critical learning environments in their communities. In doing so McKenzie offers the scholar and practitioner another way to conceptualize PBE in their thinking, in a far more generative way than Bowers has outlined.

To conclude, Bowers (2008) brings some important points to the conversation around CPBE. While the pedagogical approach to living well in and with place may differ from Gruenewald’s (2003a) CPBE, the aims are closely aligned. The framework of commons education links with important assertions about what Indigenous cultures can teach contemporary industrial society (what Bowers calls ‘conservatism’). However, in favouring an adoption of Indigenous cultural practices rather than place as the context of learning risks educators participating in a re-colonization process. In my view, many of Bowers’ concerns are inappropriately communicated, overly dismissive, and drawn from narrow readings of critical pedagogy. A strong CPBE includes the commons as both place and host for traditional cultures and ways of knowing but also provides opportunity for critically engaging with elements of contemporary society, such as political, cultural, economic, psychological, with people and places that go beyond exclusive focus on the commons. In moderating the perceived universalizing tendencies in past critical pedagogy scholarship with attention to decolonizing

European education system norms, Gruenewald (2003a) has provided an important theory for the settler-educator, one that can complement ongoing efforts in school reform.

Indigenous Critique

For many Indigenous scholars, ‘Land’ is preferred to ‘place’ as the language of educational context (Kawagley & Barnhardt, 1999; Deloria & Wildcat, 2001; Tuck, McCoy & McKenzie, 2014). For these authors, Land is defined not just the ground we stand on, but also water, air and subterranean earth, as well as its spiritual, emotional and intellectual aspects (La Paperson, in Tuck, McCoy & McKenzie, 2014). What distinguishes land and the capitalization of Land, is going beyond the purely material elements of a place, expanding into “spiritual, emotional and intellectual aspects” that are part of a holistic relationship with a place (Styres, Haig-Brown & Blimkie, 2014, p. 37) and by extension, relationship between human and land are not ones of ownership but relationship (Tuck, McCoy & McKenzie, 2014, p. 10).

Land is central to understanding of settler-colonialism and the multiplicities of oppression that inform it, including class, ethnicity and gender are absent from discourse (Nespor, 2008). Indigenous scholars question settler interpretations of place and place futures that are inherent in some forms of PBE. For example, Indigenous scholar Melissa Twance (2019) identifies two main critiques of PBE: firstly, that they are Eurocentric epistemologies that hold inherent biases away from Indigenous ways of knowing; secondly, that “they generally reproduce mythologies of innocence for non-Indigenous students in terms of their role as settlers in colonial violence and the dispossession of Indigenous peoples” (p. 1321). Land is vital to Indigenous existence; its theft by Europeans severed a central part of how First Peoples lived, including sustenance, culture and spirituality (Simpson, 2014). La Paperson (in Tuck, McCoy & McKenzie, 2014) goes further claiming,

people are arranged - raced, classed, gendered, sexualized, dis/abled, il/legalized—into triadic relations to land: the settler whose power lies in shaping the land into his wealth, the Indigenous inhabitant whose claim to land must be extinguished, and the chattel slave who must be kept landless (p. 116)

and to clarify, “land is both people and place” (p. 124). Therein is one of the critiques Indigenous scholars aim at PBE, that the engagement with place comes from an anthropocentric view, rather than as a holistic one that sees humans and the more-than-human world as one. For example, riffing off Descartes' notion of ‘I think, therefore I am’, Bang and colleagues (in Tuck, McCoy & McKenzie, 2014) orient Land education as, “Land is, therefore we are” (p. 45). Whereas PBE typically engages with social or ecological issues derived from human action, Land education communes with places, often through Indigenous language, to listen for what they are trying to teach.

The authors of a special edition edited volume, *Land Education* (Tuck, McCoy & McKenzie, 2014) specifically sought to engage with the increasingly prominent field of PBE. Contributors identified two shifts that PBE needs to make to engage seriously with settler colonialism: namely, refusing emplacement and displacement discourses, and refusing settler

futuristic as the referent or purpose of justice. Tuck, McCoy and McKenzie (2014) take issue predominantly with Gruenewald's (2003a) notion of 'reinhabitation' which they interpret as a doubling down of settler-colonialism without due consideration of, and action on decolonization. Subsequently, they claim any form of education that fails to interrupt settler colonialism, perpetuates settler-colonial relations. "Settler emplacement", write Tuck, McCoy and McKenzie (2014), "is incommensurable with decolonization, because at its basis is a drive to replace the native as the rightful claimant of the land" (p. 16). Settler futurity is the assumption that settler colonialism can be modernized away (Baldwin, 2012) without a fully informed approach of decolonization. Such an approach would demand the return of stolen land as the foremost step in creating opportunities for Indigenous self-determination, a vision of which includes settlers but cannot be determined by settlers. Failure to do so, would render decolonization a metaphor (Tuck & Yang, 2012).

Some Land education scholars do not dismiss PBE outright but claim that it does not go far enough in recognizing how place is inextricably linked to settler-colonialism. In doing so, these authors make valuable contributions to PBE. As I articulated earlier in this paper, liberal PBE (Sobel, 2002; Smith, 2004, 2013) has not theorized broadly enough to make learning in, with and for places grounded in settler-colonial in any temporal sense. But in my view, Tuck, McCoy and McKenzie (2014) lapse into conflating liberal and critical PBE, while narrowly critiquing Gruenewald and Smith's (2010) edited volume. I am going to argue that actually meeting the aim of 'reinhabitation' - which Gruenewald (2003a) maintains that is how "humanity's diverse cultures attempt to live well in the age of globalization, and what cultural patterns should be conserved or transformed to promote more ecologically sustainable communities" (p. 9) - would demand learning that situates settler-colonialism at the core of further learning in, with and for place. Indeed, in pulling on Orr's (1992) discernment between resident ("investing little, knowing little, and perhaps caring little for the immediate locale") and inhabitant ("detailed knowledge of a place, the capacity for care and observation, and a sense of care and rootedness" (p. 130)), Gruenewald (2003a) is calling for a deeper understanding of place that challenges emplacement and settler futurity.

Ultimately, Tuck, McKenzie and McCoy (2014) praise CPBE as shifting the frame away from LPBE's settler normative thought and action on land, and towards decolonial practices. But I agree with Seawright (2014) that there is much more for CPBE to do, specifically making explicit white settler and anthropocentric epistemologies in teacher practice, unsettling the curriculum as written and lived in the process. There is room for CPBE to take on some of the generative criticism offered in *Land Education* (2014) and incorporate these concepts and approaches into the fold.

I suggest Gruenewald's (2003a) foundational text as a valuable starting point for CPBE as it purposefully invites scholars to build on the theory. A vision for how Land education can inform critical PBE is presented by Calderon (in Tuck, McCoy & McKenzie, 2014). They propose a four-step process: (1) to take a critical look at the history of the place, and in doing so, foreground learning of place in an understanding of settler colonialism and the history of

genocide; (2) understanding how places are named, as this is a vehicle for how places are interpreted, as traditional place names can support a historical and Indigenous history of that place, including the displacement of traditional peoples to or from a location; (3) building on the first two steps to orient learning around notions of ‘reinhabitation’, which as Brandt (2009) states “occurs when local, democratic self-management of degraded homelands becomes possible and stakeholders come to understand the colonizing effects of past historical practices” (p. 97); and (4) to utilize PBE as a tool for supporting Indigenous resistance and resurgence, which in turn ‘unsettles’ less critical approaches to PBE presented by Sobel (2013) and Smith and Sobel (2010). This is the challenge that a CPBE has in recent years addressed.

Pack (2019), Conrad (2022), Greenwood (2019) and Scully (2018, 2020) offer examples of how educators might draw Calderon’s principles into CPBE. One practice is to direct time and reflection to the histories and ways of understanding that have been present in the place in which one teaches. Pack (2019) details a personal narrative of moving to California, and his deep understanding of his new home requiring historical knowledge of the first peoples and the violence of settler colonialism which runs through to the present day. This learning, he argues, needed to go beyond historical events to include a metaphysical understanding, informed by the ‘more-than-human’ relations between residents of a place, and the natural objects and topography of a place. As an educator, Pack (2019) writes, “learning this history helps students connect with and give coherence to the Central Valley as a place, which, as a result, opens up possibilities for new meanings and a new sense of situatedness to inform their educational experience” (p. 604). Adopting these views for settlers is disruptive, can lead to questioning the status quo of Western epistemology, and can become a decolonial force. Educators will need to weigh how this work can be adapted for age-appropriate teaching.

Another example is to engage directly with and contest Eurocentric design and content of curriculum documents. Conrad (2022) sought to locate the knowledge that would support settler educators’ capacity to effectively unsettle senior years history curriculum. Through interviews with settler educators named by Indigenous educators as leaders in this work, Conrad (2022) identified three common practices: firstly, strengthening context for Indigenous knowledges and sovereignty to counter colonial patterns of erasure; secondly, using historiographical counter-narratives to show how interpretations of history are situated in colonial power relations; and finally offering experiential and place-based learning with Indigenous knowledges beyond the classroom (p. 10). Conrad (2022) concluded that “personal resonance with relational and place-based learning appears crucial for teaching Indigenous historical perspectives meaningfully” (p. 20) and that this must be coupled with ongoing, reciprocal relationships with Indigenous peoples and homelands. Though curriculum documents are provincial, there are nuances across territory that can be explored and used to challenge learning outcomes.

In ‘Land, Place, and the Decolonization of the Settler Soul’, Greenwood (2019) maps out a personal journey of reflection, asserting that the “politics of decolonization must be spacious enough for everyone” (p. 359) including white settlers like himself to engage in and work through, selecting to participate in the ongoing project of “living an examined life in relation to

place” (p. 370). While Pack (2019) and Conrad’s (2022) external experiences may be of value, Greenwood distinguishes between the ‘inner’ and ‘outer’ work of decolonization, pointing out that the former must precede, or at the very least track alongside the latter. Crucially, Greenwood (2019) argues there is a role for the settler in decolonization, and as serious ‘co-conspirators’ in the decolonization project, advancing two imperatives for settlers: firstly, “taking responsibility for learning about the impacts of settler culture on Indigenous lands and peoples, and secondly settlers and more recent immigrants need to become more conscious of their lived response to the cosmo-ontological question, ‘how to be in the world?’” (p. 373). In turn, Greenwood brings together the work outlined by Pack (2019) and Conrad (2022).

If Pack (2019), Conrad (2022) and Greenwood (2019) map out the work of the solitary educator in broadening the scope of CPBE, Scully (2018, 2020) adds an important contribution by detailing how settler educators can and should work alongside Indigenous communities. Scully (2018), a settler educator, writes,

I think that being critically place-connected as a settler requires consciously, actively respecting the knowledge of the Indigenous peoples of that place, because being Indigenous to a place means belonging to a cultural community where the practices, languages and worldview of that people have grown out of that place – the Land has informed the culture of that place in a way that it would be wise to listen to (p. 103).

Land education, Scully writes, provides a pedagogy guided by Indigenous knowledge and centers the holistic way that Land is represented in this worldview. Paraphrasing Battiste and Henderson (2009), Scully (2018) considers that such an approach “emphasizes the importance of learning *from* Indigenous peoples and places *about* Indigenous peoples and places” (p. 26), particularly as “many people do not know Land, just as they do not know Indigenous histories, peoples and knowledges” (p. 36). But Scully notes, CPBE still remains an important starting point for the settler educator willing to transform their practice, as it brings important focus on the ways the economy and racial capitalism has entrenched a culture of settler-colonialism in Canada, whether in the city or in the country. Scully (2018) reminds us,

Canada is Indigenous territories. Learning from and about Indigenous people in context is therefore possible everywhere. This is a powerful and empowering realization that should pre-suppose the centering of Indigenous peoples and epistemologies in CPBE in Canada. However, Indigenous peoples, communities and knowledges have not been well-respected or acknowledged, let alone centered, in the interdisciplinary conceptual trajectory of Place (p. 92).

To this, I would add, CPBE, as articulated by Gruenewald (2003a), provides a much-needed framework – specifically for settler educators - engaging in place-based action to build on foundational understandings of Land and settler-colonial histories and for all youth to participate in the project of decolonization.

A Rationale for Critical Place-based Education

Aspects of Land education could complement PBE in what Battiste's (2013) called 'trans-systemic knowledge'. Here Battiste (2013) considered a way to bridge the divide between Eurocentric and Indigenous knowledge calling for a two-track approach that integrates elements of both worldviews. A trans-systemic approach is one that rejects 'cultural imperialism' moving away from just the inclusion of Indigenous heritage, towards one that includes contemporary Indigenous language and culture, and is grounded in a pedagogy of constructivism that pulls on learners' schema and community. Despite the challenges that CPBE must face towards integrating Indigenous ways of knowing, there are important contributions that CPBE can play in settler colonial societies and education.

The contemporary Canadian education system is not yet meeting the need to (re)connect people within the biosphere, nor acting in ways that are commensurate with the historical and contemporary legacies of colonialism and ongoing racism (Simpson, 2014). Settler educators in Canada need to be not just aware of the ongoing historical processes that exploit, divide and destroy people and the planet but active in engaging learners in this understanding; a critical approach that respectfully incorporates Indigenous ways of knowing is essential for any project that seeks to understand the contemporary moment, and where we as peoples may or should go.

I see CPBE as well placed to meaningfully engage with the biggest issues facing contemporary Canadian society - and therefore Canadian education - today. It provides a theory and framework for bringing together critical pedagogy and environmental education and takes seriously the need and capacity for K-12 education to have a role in preparation for today and the future, and in its own way, intervene and change the current economic and cultural logics operating within Canadian society today. CPBE fits well with the geographical, social and cultural location of Winnipeg. It sets manageable boundaries for the study, while aiming to draw meaningful place-based conclusions for how we should live here.

CPBE presents an approach to education that sees the school as holding potential for reorienting wider society. It aims to begin with the local to reconnect youth with their neighbors, neighborhoods, bioregion, and utilize the vital time and opportunity that K-12 education affords to engage learners and learning in improving the conditions of their existence and using place to set youth on a future path of socially and ecologically conscious living. Theobald and Siskar (in Gruenewald & Smith, 2010) make a broader claim for the presence of a place-based form of education stating,

The larger rationale for using the phrase 'place-based' has to do with the fact that the full range of an individual's humanity will unfold someplace, whether or not we would choose to call that place a community. That place then becomes a kind of stage on which political, social, economic, educational, and religious lives become manifest, however well- or ill-developed these might be. And the interaction between these lives in that place contributes to a certain kind of enacted story told time and time again whenever the place is described (p. 198).

Through capitalism citizens have become atomized and framed as consumers, with education used as a site for producing obedient and economically productive members of society, encouraged to turn a blind eye to injustice and the impact of the current economic model on people and the natural world (Darder, Baltodano & Torres, 2003). The role of critical pedagogy is not consistent across all forms of PBE but given the history of these lands that Winnipeg sits on and the ongoing acts of genocide Winnipeg, what Toews (2018) calls ‘racial capitalism’, I view the role of critical pedagogy in PBE as essential.

In their contemporary form Gruenewald (2003b) argues, schools “limit experience and perception... by regulating geographical experience, schools potentially stunt human development, as they help construct our lack of awareness of, our lack of connection to, and our lack of appreciation for places” (p. 625). Consequently, the aim of CPBE is to work against the widening gulf in discourse and practice between local communities and schools, by reenlisting teachers and students in “first-hand experience of local life and in the political process of understanding and shaping what happens here” (p. 620), by “learning to listen to what places are telling us - and to respond as informed, engaged citizens” (p. 645).

In Summary: Literature Review on Place-based Education

Originally conceived as a pedagogy that pushed back against the dislocated experience of public education for youth, PBE sought to use the community and its assets as the learning environment for youth. Thomashow (2002) asserts that, “People are typically interested in understanding who they are in relation to where they live. By exploring the places that are most important to them, they are most likely to take an interest in the human and ecological communities of those places” (p. 76). This extends not just to the material structure and location of places, but those in the community that inhabit places and their knowledge of them. Mannion and Adey (2011) point to the ‘intergenerational’ potential that PBE possesses by learning from community knowledge keepers and experts to facilitate and broaden understanding of place.

PBE scholarship began with the idea that K-12 education could be reconceptualized to play a role in community revitalization in the Northeast and Northwest of the United States, which in turn would strengthen the connections between youth and the (predominately) white, rural places in which they lived and attended school. The post-industrial landscape of the United States had left many single-industry towns desolate, with youth often leaving communities after graduation and staying away or remaining to struggle in finding employment and personal meaning. PBE was theorized to mitigate some of the worst impacts of capitalism, albeit in ways that did not directly critique the economic system which led to it.

At the turn of the twentieth century, more scholarship emerged that took two directions: firstly, with Gruenewald’s (2003a) theorizing of a critical pedagogy of place, which fused critical pedagogy and environmental education with a focus on learning in place, and secondly with the increasing work and attention on the role of place in Indigenous education and the crucial role it could play in decolonizing and revitalizing Indigenous communities. What followed were efforts to shift from liberal notions of PBE that were silent on settler colonialism, towards a deeper

understanding of how PBE needed to create space for recognizing the history of places and how PBE could be a vehicle for decolonizing education. Emblematic of this evolution are changes in scholarship on PBE; from Theobald (1997) to Sobel and Smith (2010) to Gruenewald and Smith (2010) to Gruenewald's most recent work (2019), there is an increasing recognition of the necessity to centre the contested use and understanding of land in PBE. Bowers' (2008) challenges to critical PBE and Land education research (Tuck, McCoy & McKenzie, 2014; Scully, 2018, 2020) has contributed towards this conversation. A settler educator developing critical consciousness could be well situated to engage in decolonial work through CPBE.

There is significant research to support the positive impacts of PBE on academics, citizenship and stewardship and benefits to the community (Akkaya-Yilmaz & Karakus, 2018; Asakle & Barak, 2022; Athman & Monroe, 2004; Ceasar, 2012; Chawla & Flanders-Cushing, 2007; Engels, et al., 2019; Ernst & Monroe, 2004; Hamilton & Marckini-Polk. 2023; Johnson, Duffin, & Murphy, 2012; Ontong & Le Grange, 2015; Oonk et al., 2017; Powers, 2004; Sturrock & Zandvliet, 2023). This is important to keep in mind, as there are not insignificant challenges to putting PBE into practice within the K-12 classroom. Research has for the most part sought to focus on grades K-8 and occasionally post-secondary education. Two recent publications that serve as guides to PBE practice (Anderson, 2017; Vander Ark, Liebttag & McClelland, 2020) use examples exclusively from K-8 in the United States, with the only exceptions at the senior years coming from 'alternative' high schools. Some case study research profiles high school teachers engaging with place within subject disciplines (Brook, 2016; Mathews, 2013; Zimmerman & Weible, 2017). Structural barriers, particularly the obsession with distinct disciplines and scheduled school day present perceived or real limitations for PBE at the high school level.

Knowledge Gaps

Although Indigenous education includes many practices that are common to PBE, there is a knowledge-gap in research focused on PBE within the wider public education system in Canada. Most research comes from two provinces (British Columbia and Ontario), and within these two locations, scholarship has predominately been concerned with alternative or environmental programs (Hutson, 2011; Mnyusiwalla & Bardecki, 2017; Peredun, 2018), or in linking place with single disciplines such as art (Brook, 2016; Inwood, 2008; Sunassee, Bokhoree, & Patrizio, 2021), science (Semken et al., 2017), and language arts (Mendoza, 2018; Wason-Ellam, 2014), rather than adopting an interdisciplinary approach. In short, it appears that PBE remains on the pedagogical margins of K-12 teacher practice in Canada. There are very few published studies that explicitly look at CPBE, and although Conrad (2022) does focus on including settler-colonialism content in his narrative inquiry, to date there are no published works that utilize a CPBE approach to settler-colonialism or climate change education for example.

Two Canadian studies, both conducted in Saskatchewan, offer important insights into research into PBE in Canada. Miller and Twum (2017) used purposeful sampling to interview seven teachers in Saskatoon who were regarded as place-based educators to understand their

rationale for using PBE and barriers that limited their work. The authors were focused specifically on how higher education could support increased PBE practice and concluded that teachers need to be fully committed to the practice early in their careers and hypothesized that Bachelor of Education courses focused on PBE should play an increased role in fostering this attitude.

Using a pre- and post-interview method, Harasymchuk (2015) completed a comparative analysis of eleven teachers in Christchurch, New Zealand and Saskatoon, who deployed PBE in their practice as a tool of resistance to colonial pedagogies. Harasymchuk (2015) identified three key findings: (1) that many of the elements of PBE and CPBE are accessible to teachers, despite their sense that they were beyond their control; (2) a heightened awareness amongst PBE and CPBE practitioners of their capacity to transform classroom and community places as pedagogical sites; and, (3) that ‘courage’ was key for teachers to challenge educational norms.

Both Twum and Harasymchuk are graduates of the University of Saskatchewan Master’s in Education program, and unsurprisingly, the University of Saskatchewan is committed to the teaching of PBE, most evidently through their third-year course EFDT 313.13: Pedagogies of Place Context Based Learning. This course has grown from a single one-semester course offering in January 2020, to being offered in six sections for the January 2023 term (University of Saskatchewan, n.d.). One might conclude that there is an appetite amongst student-teachers to learn more about what PBE is and how to draw it into their practice.

The studies by Miller and Twum (2017) and Harasymchuk (2015) used an interview method to derive conclusions on PBE. Through action research, Harrison’s (2011) study engaged more directly with educators in PBE. Whereas Miller and Twum (2017) and Harasymchuk (2015) studied PBE *as it is*, by utilizing action research methods, Harrison’s (2011) work operationalized an action research methodology to collaboratively push participant theory and practice towards *where the participants wanted it to be*. Harrison brought two groups of educators (including public school teachers, outdoor educators from non-school sites, park rangers and members of the Transition Town movement) together for three weekends of professional learning. These sessions began with direct contact with places which spurred dialogue in the group, which were then tied to participants past experiences of place, and concluding with a theoretical and practical exploration of how these experiences and conversations had impacted the participants’ own thinking and practice.

Conclusions from Harrison’s (2011) work presented the benefits and complexities inherent in PBE. For example, some of Harrison’s (2011) participants referenced how places ‘spoke for themselves’ through the relics of abandoned houses, the loss of biodiversity; further, that by ‘dwelling’ in place, it brought meaning to the lives of educators and youths. The complexities ranged from obvious challenges of time and resources to bring youth to places, but also that linking the context-bound nature of place and “abstract academic and philosophical thought” (p. 95) of place scholarship, makes PBE itself slippery pedagogical work to get a grip on.

The literature review points to an evolution of PBE over the last thirty years from liberal towards critical approaches and a more intentional approach that focuses on place but does so with greater awareness of the need to make space in any PBE scholarship for Indigenous history and knowledge. Questions remain of what this contemporary approach to PBE might take in K-12 public education in a city like Winnipeg, a local noted as offering valuable insight into the past and present logics of settler-colonialism.

Chapter Summary

In this chapter a review of the scholarship on PBE was presented. This included the early theoretical pieces which would set the field, how these evolved to adopt critical perspectives and how non-Indigenous scholars became not just aware of how central place is to Indigenous ways of knowing and being, but how this should impact settler approaches to PBE. Three key texts were highlighted, and which symbolized the evolution of PBE, before strengths and challenges of putting PBE into practice were presented.

The evolution of PBE in North America from a liberal, rural and economic development orientation towards a critically informed approach which takes seriously settler-colonialism and welcomes Indigenous and decolonial understandings of place, sets up this dissertation study. A series of case studies offering examples of how K-12 practitioners have focused on place in their curriculum-aligned teaching, complemented by empirical studies outlining the benefits of PBE for student's academic knowledge, personal traits and growth as a citizen from the last twenty years indicate that PBE can be utilized as a powerful approach to teaching and learning in the K-12 education system, to the extent that exploration of how to navigate the aforementioned challenges is worthwhile. At the time of writing there has been no scholarship produced that has focused on the specific context of Winnipeg but given the specific characteristics of Winnipeg and the direction that PBE scholarship is heading, this offers a valuable opportunity to explore how K-12 teachers in the metro-Winnipeg region are using place in their teaching, and what possibilities might emerge with a sustained and intentional integration of PBE into instructional design and practice. Chapter 3 will establish the research paradigms and research methods from which this study will operate.

Chapter 3: Methodology

As stated in Chapter 1, this dissertation is interested in the current role of place and PBE in metro-Winnipeg teacher practice. Through a survey distributed to in-service K-12 teachers and action research conducted with three K-12 classroom teachers, I sought to answer:

1. *To what extent is place-based education evident in K-12 teacher practice in the metro-Winnipeg region?*
2. *How and why is place-based education used in K-12 teacher practice in the metro-Winnipeg region?*
3. *How do K-12 teachers design and facilitate place-based education?*
4. *What content do K-12 teachers focus on in their place-based education practice?*
5. *To what extent is critical place-based education present in K-12 teacher practice?*
6. *What are the barriers and catalysts for teachers to engage in place-based education in metro-Winnipeg?*

In this chapter I will map out the foundation for the study which this dissertation will focus on. It will begin with a recap of the research questions that will orient the project, before detailing the paradigms in which I as researcher orient the research from. This chapter will explore the survey research and action research methods, including a more detailed analysis of action research philosophy, methods, and examples of how it has been used in similar research studies. The chapter will close with an outline of how the action research study navigates questions of validity and limitations. Chapter 4 will document the findings of the survey and action research studies, before a deeper analysis in the Chapter 5 Discussion.

Research Paradigms

Methodology, state Taylor and Bogdan (1998), is “the way in which we approach problems and seek answers... our assumptions, interests, and purposes shape which methodology we choose” (p. 3). A research methodology is chosen depending on the paradigms (Lincoln & Guba, 2000) that a researcher holds that provide “a general orientation about the world and the nature of research that a researcher holds” (Creswell, 2008, p.6). In the next section I will discuss three research paradigms: interpretivism, constructivism and critical pedagogy. These complementary paradigms guide my perspectives on teaching and learning and subsequently the study design, data analysis and findings.

Interpretivism

The interpretivist paradigm is used by the researcher to develop an understanding of the world through the voices of research participants. At the heart of an interpretivist stance is that an understanding of the world is socially constructed (Willis, 2007) and social reality is the product of its inhabitants who “produce and reproduce as a necessary part of their everyday activities together” (Blaikie, 2009, p. 99).

The reaction to a scientific or objectivist approach to humanities research emerged over the last century, and focused critique on a perceived mechanistic and reductionist view of the world as articulated through positivist paradigms and research methods. Positivism, Cohen and colleagues (2005) write, “excludes notions of choice, freedom, individuality and moral responsibility” (p. 17). The postmodern turn in the twentieth century critiqued ‘positivism’, defined as a standard of understanding and conducting research that sought to establish facts or causes and ultimately the codification of ‘universal laws’ of a social phenomenon, work that was removed from the researcher who would objectively report on them (Punch, 2016; Taylor & Bogdan, 1998). However, as Habermas (1972) argued, “positivism is unable to answer questions about many interesting or important areas of life” (p. 300), which means its conclusions “are so banal and trivial that they are of little consequence to those for whom they are intended, namely teachers” (Cohen, Mannion & Morrison, 2005, p. 19).

Interpretivism is situated on the subjective side of the subjectivist/objectivist spectrum, and most concerned with understanding and reporting on context specific social patterns and meaningful action (Blaikie, 2009). An interpretive approach to research diverges from positivism in that interpretivist researchers believe there is no true reality, and that everyone holds different understandings of events and the world. Interpretive researchers, write Thanh and Thanh (2015), “do not seek the answers for their studies in rigid ways. Instead, they approach reality from subjects, typically from people who own their experiences and are of a particular group or culture” (p. 25). Similarly, Willis (2007) argues that interpretivist researchers “eschew the idea that objective research on human behavior is possible” (p.110) and embrace the subjectivity.

Constructivism

Interpretivism has a strong connection to constructivism, a view that knowledge is established and changed by social realities which are local, specific and constructed, socially-culturally, politically (ideologically) and experientially based, and highly dependent on the individuals or groups holding them (Guba & Lincoln, 2013). Constructivists see culture not as a concrete objective reality, but “an active process that is continuously constructed and negotiated through social interaction” (Gubrium, et al., 2012, p. 258). People are individual agents influenced by other individuals and the social constructs and/or environment in which they exist claims the constructivist paradigm. Glicken (2003) argues that constructivist orientation to research appeals to those interested in establishing a democratic relationship between the researcher and research participant, that research is enhanced when such an approach is taken, and further that findings of the research are likely to more accurately represent the shared understanding of reality as a result. Owing to these benefits, researchers should orient towards research subjects being partners in the research process because, “constructivism provides the research subject the authority to influence the research process and gives the subject equal power to develop the research questions, conduct the study, and analyze the data” (Glicken, 2003, p. 30).

This research study is framed by interpretivist/constructivist approaches to research, as it mirrors my understanding of how people think and act in the world, and consequently informs how I teach and assess as a practicing educator. I recognize that teachers arrive in the profession for a variety of reasons, hold differing philosophies and practices that are informed by and evolve because of their engagement with the socially constructed school environment, which intersects with the world beyond. As an emerging researcher I wanted to use methods that enabled me to understand more deeply the philosophies, motivations, relationships, practices and social conditions that led to the creation of ideas, lessons, experiences, and community action in dialogue with society and the natural world in which educators are enmeshed. PBE is particularly suited to the paradigms of interpretivism and constructivism and recognizes that the context emerging from research here may inform understandings to other places and contexts but should not be seen as directly transferable.

Critical Pedagogy

Critical pedagogy is the application of critical theory to education. It is a social theory which emerged in the mid-twentieth century out of Germany through a loose collective at the Institute for Social Research at the University of Frankfurt. Its members Theodor Adorno, Max Horkheimer, Walter Benjamin, Herbert Marcuse, Erich Fromm and Jurgen Habermas sought to investigate why, despite evidence of Marx's reading of the problems of capitalism, had a global proletariat revolution not occurred? Their answer: because of culture, and specifically the invocation of Frankfurt School predecessor, Antonio Gramsci's notion of 'hegemony' - the manipulation through culture of the working class by the ruling class (Jeffries, 2016).

Brazilian educator Paulo Freire widely considered to be the founder of critical pedagogy thought, took ideas from critical theory and applied them to his work with peasants in Brazil, developing and critiquing the notion of the 'banking model' of education, instead advocating for a liberatory dialectical approach, most clearly outlined in his ground-breaking work, *Pedagogy of the Oppressed* (2011). In this text Freire documented his experience working with adults towards developing what he called *conscientização*, (or critical consciousness), through the methodology of action research.

Over the last half-century, critical pedagogy has become far more expansive, partly through the scholarship of Freire, along with several critical researchers. These diverse perspectives can be summarized by critical pedagogue Ira Shor (1992) who defines the theory as, habits of thought, reading, writing and speaking which go beneath surface meaning, first impressions, dominant myths, official pronouncements, traditional cliches, received wisdom, and mere opinions, to understand the deep meaning, root causes, social context, ideology, and personal consequences of any action, even, object, process, organization, experience, text, subject matter, policy, mass media or discourse (p. 129). In short, it is a theory of education that includes not just what is taught and how it is taught, but underlying power structures in schools and school systems, recognizing that these buildings and

institutions are political spaces that can choose to reproduce or erode structures of class, race and gender, for example.

Like the critical theorists of the Frankfurt School, critical pedagogues believe that culture has a way of distorting individuals' views of the underlying reality of the world, which allows dominant hierarchies to endure (Roberts, 2012). For critical pedagogues, the school is a site of cultural maintenance, yet teachers can take on the role of cultural workers (Simon, 1992), transforming their classrooms, lifting the veil for learners to see the world as it is, and empowering them to engage in praxis.

As explained in my literature review, Gruenewald's (2003a) article 'The Best of Both Worlds: A Critical Pedagogy of Place' called for PBE to open its traditional focus on environmental education and community development to allow for critical pedagogy to inform teacher theory and practice. As an educator and emerging scholar, I am drawn to CPBE as a theory and practice, but in this research study I am reluctant to exclusively focus on this area of PBE, keeping my research questions and role as an outsider researcher broad enough to work with teachers across the spectrum of PBE. Yet critical pedagogy informed how I built reciprocal insider/outsider relationships through the action research study.

Critical pedagogy, constructivism and interpretivism have strong connections to action research in education, a research methodology which focuses on teacher practice that seeks to empower and nurture educators to transform their classrooms into sites of critical consciousness. Understanding the highly contentious sites that K-12 schools are (Apple, 2012) (What is taught? How much is taught? How is it taught? What is not taught?), but also the rich potential they have for disrupting hegemonic processes that critical theorists argue reproduce structures of oppression, Kemmis and colleagues (2014) contend that "only teachers can change teaching practices in local settings, even if they are following advice from elsewhere... practitioners are the greatest resource of all for changing educational practice, and that, therefore, teachers' research is the most potent force for changing educational practice" (p. 25).

Researcher Positionality

These three research paradigms provide insight into not just the lens through which I as a researcher adopt for this study, but my worldview that informs my work as an educator. Positionality statements today are a necessity in action research projects (Kitagawa, 2023) and are typically expressed by a researcher in three areas: (1) the subject under investigation, (2) the research participants, and (3) the research context and process (Holmes, 2020). The previously stated research paradigms of interpretivism, constructivism and critical pedagogy lend themselves well to open-ended survey research and the Cogenerative Method for action research on PBE generally and critical PBE more specifically (more on these later in this chapter).

Owing to the nature of the outsider researcher role in action research, it is important to go beyond the methodologies I hold as a researcher, because as Stringer (2007) notes, "readers [of action research studies] should understand how the relationship between the research facilitator and other participants helped shape the processes and outcomes of the investigation" (p. 177).

Greenwood and Lewin (2007) write that “action researchers are sympathetic and committed to the welfare of local stakeholders but are also obligated to question them, press their logics and interpretations and help them learn for themselves how to conduct social research, use particular methods and how to defend their conclusions” (p. 54). These are beliefs and practices that I have harboured through my past work in public education through project-based learning and inquiry, PBE, leadership and post-secondary education. This dissertation offered a way to formalize these beliefs and practices, complemented by understanding the broader theory and practices of PBE in Winnipeg, by documenting and reporting on the findings of participants and myself.

My past professional and academic experience has aligned with these research paradigms, working with youth and adults in ways that co-construct understandings of the world through inquiry and dialogue. I am a certified teacher in middle years and have classroom teaching experience in early years and senior years in Winnipeg. In my time as a classroom teacher I have designed, facilitated and assessed PBE, primarily through integrated units in project-based learning and inquiry approaches at the elementary and senior years level. I have also held leadership experience as a principal-teacher at a project-based learning high school, and as a post-secondary school instructor in social studies education, project-based learning and experiential education.

In these capacities I have worked in classrooms with pre-service and in-service teachers instructing them on theory and practice that aligns closely with PBE; I often pull on my classroom experiences to contextualize the possibilities of PBE and project-based/inquiry learning. I have organized and led professional learning communities (PLC) that have looked at project-based approaches that align with Manitoba curriculum. In the summer of 2024, I piloted a PBE course for in-service teachers through the University of Winnipeg Faculty of Education post-baccalaureate program. In short, I have experience of working with Manitoba teachers across the K-12 system on PBE.

I was not interested in designing a study that situated myself as researcher removed from the research participants and their teaching context. The decision to engage directly with K-12 teachers in this study, firstly through an open survey for K-12 teachers and then sustained and intentional collaboration through action research with K-12 teachers curious about PBE and willing to share their experiences was an intentional decision for aligning with the worldview I hold and the type of knowledge that I wanted to create alongside my research participants.

The selection of PBE as the focus of this dissertation also aligned with my positionality. I am a white settler immigrant with family roots stemming back to England. I grew up in a working-class farming family before moving to rural Manitoba as a teen. The move from England to Canada precipitated an increasing awareness of privilege, particularly whiteness, heterosexuality, language and imperialism. Raised economic security but not economic privilege led me towards a left-leaning political orientation. I have long held an interest in social studies as a subject, but this was not a subject I was particularly drawn to as a K-12 student and at least in my first few years as a post-secondary student, in part because of the traditional approach to teaching that it often adopted. Despite living on a farm in the UK, I attended school in a city,

before immigrating to a rural farming community in Manitoba. The move from England to Canada made me acutely aware of the nuances of place and the understanding that what is taught in K-12 schools can and should be contextualized to the needs of people within that community. I remain indebted to a pre-Masters in History taken at the University of Manitoba for sharpening my understanding of global political economy that balances the local with the global.

Research on PBE in a settler-colonial context requires explicit recognition of whiteness and ethnicity, which this dissertation will explore throughout. I identify as a ‘settler’, a term that differs from ‘white’, ‘newcomer’, ‘non-Indigenous’ and even, Canadian. Lowman and Barker (2015) argue that to identify as a settler is to make a philosophical decision that collects a series of positions. To say ‘settler’ is to voice:

- Relationships to structures and processes in Canada, to the histories of our peoples on this land, to Indigenous peoples, and to our own day-to-day choices and actions.
- A turn towards uncomfortable realizations, difficult subjects, and potential complicity in systems of dispossession and violence.
- A tool, a way of understanding and choosing to act differently; a tool we can use to confront the fundamental problems and injustices in Canada today.
- An analytical, personal, and uncomfortable understanding; an identity that we claim or deny, but that we inevitably live and embody... it is who we are, as people, on these lands (p. 2).

To identify as a settler then, implies a critical and action-oriented stance and requires individual learning that feeds into a personal understanding of the implications and required actions for living and working in a settler-colonial state. Throughout this dissertation I am acutely aware of the need to delineate between the work that settlers could and should engage in, but also what practices they should not enter because they are held for Indigenous peoples. In Chapter 2 I articulated why understanding the nuances between PBE and land-based education was important for pursuing research on PBE. It is in this way I see PBE as a respectful approach to teaching and learning for settler educators to engage in work that meets the Truth and Reconciliation’s (2015) Calls to Action, without appropriating or diluting pedagogies and practices that should be led by Indigenous peoples.

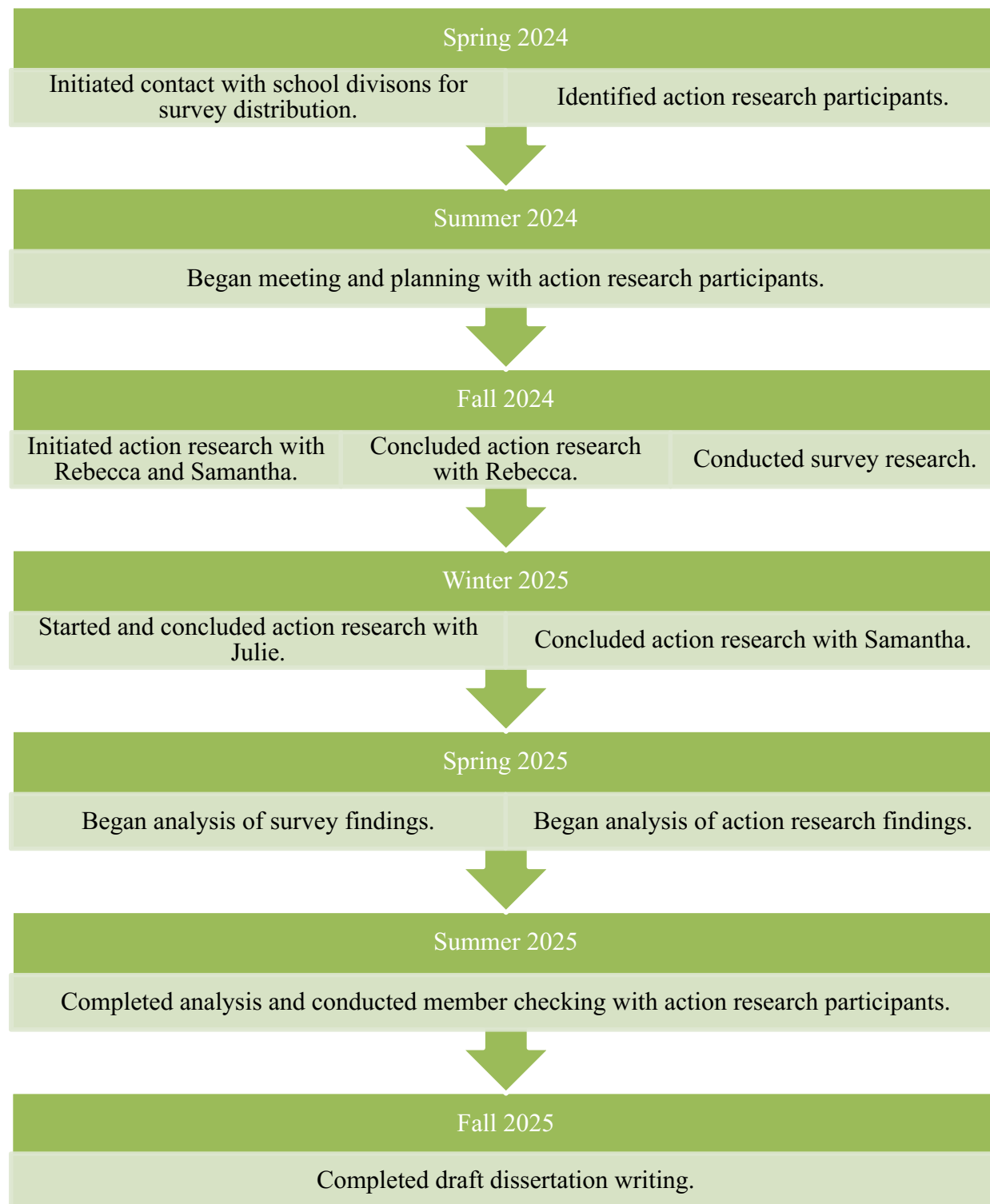
Context for Research Methods

As Chapter 2 made the case, there is both increasing interest in PBE and benefits for students and communities of increasing the presence of PBE in the K-12 education system. PBE reconceptualizes what and how teaching and learning occurs both within and beyond classrooms. Positive impacts from the literature are documented for: academic performance (Akkaya-Yilmaz & Karakus, 2018; Asakle & Barak, 2022; Engels, et al., 2019; Powers, 2004;), personal traits (Akbas & Cakmak, 2019; Athman & Monroe, 2004; Ceasar, 2012; Ernst & Monroe, 2004), citizenship and stewardship (Chawla & Flanders-Cushing, 2007; Hamilton & Marckini-Polk, 2023; Ontong & Le Grange, 2015; Oonk, et al., 2017; Sturrock & Zandvliet, 2023), and for the community (Johnson, Duffin, & Murphy, 2012) in which this teaching and learning take place.

Accompanying these studies which look at the impact of PBE on students and the community in the past two decades, Chapter 2 also detailed that much Canadian research has focused on case studies of PBE. Most of this research comes from two provinces (British Columbia and Ontario), and within these two locations, scholarship has predominately been concerned with alternative or environmental programs (Hutson, 2011; Mnyusiwalla & Bardecki, 2017; Peredun, 2018), or in linking place with single disciplines such as art (Brook, 2016; Inwood, 2008; Sunassee, Bokhoree, & Patrizio, 2021), science (Semken, et al., 2017), and language arts (Mendoza, 2018; Wason-Ellam, 2014). The exception remains two isolated studies from Saskatchewan (Harasymchuk, 2015; Miller & Twum, 2017), which involved interviewing K-12 teachers who identified as place-based educators. The literature on PBE also surfaced ongoing challenges regarding the implementation of PBE in the K-12 system, and theoretical tensions within the field, particularly as it relates to convergences and divergences with land-based education (which is of particular concern in a settler-colonial city such as Winnipeg).

PBE theory consistently presents the need to take an interdisciplinary approach to connecting youth with people and places in the community, yet much Canadian-based research has focused on PBE within specific topics or disciplines, or specialized programs. To date, no broad understanding of PBE within a district/region that takes an interdisciplinary approach has been undertaken. The research to date offers important understanding of the strengths and challenges of PBE practices in the K-12 system. But as of the time of writing, there is no research on the extent to which PBE is present in Manitoba classrooms, nor how PBE is implemented by teachers.

This dissertation will document the findings and implications of a survey on PBE in K-12 metro-Winnipeg teacher practice, and sustained action research with three K-12 classroom teachers. Figure 3.1 outlines the steps for the survey and action research and the corresponding timeline.

Figure 3.1*Dissertation Research Methods*

Research Methods: Survey

Introduction to Survey Research

To understand the current role of PBE and the ways in which it is put into practice by classroom teachers in the metro-Winnipeg region, a survey tool was created. Surveying is a research strategy that gathers data from a range of respondents to draw inferences (Punch, 2016). The benefits of using a survey method are that it is the most effective research tool for widespread dissemination to an audience whom the researcher does not have direct physical contact with to ask and gather responses to the research questions. Broadly, surveys are an established way to gather data effectively in qualitative research, with additional benefits including simplified distribution across multiple school divisions, accessibility for informants to complete on their own time, and ensures anonymity. The ability to gather data on PBE across the metro-Winnipeg region, analyze for patterns and identify points of convergence and/or divergence between other studies on PBE, provides a foundational understanding of the status of PBE currently in this place.

Guided by Artino, et. al., (2014) and Manion, et al., (2005), this study followed an eight-step process for survey development and distribution (See Table 3.1). The section that follows will explain in more detail the key steps in the survey method, speaking specifically to constructs, question design (open-ended questions), organization, length, survey piloting, distribution and analysis.

Table 3.1

Survey Design and Distribution Process

	Step	Detail
1	Conduct a literature review	To ensure that the construct definition aligns with relevant prior research and theory and to identify existing survey scales or items that might be used or adapted.
2	Develop items	To assess how clear and relevant the items are with respect to the construct of interest.
3	Submit and respond to peer feedback	Peer feedback provided by Lakehead University and University of Winnipeg Research Ethics Board, and Dissertation Committee.
4	Design survey on web-based software	Survey was designed on Qualtrics, a recognized survey software.
5	Contact school divisions	Contacted metro-Winnipeg school division board offices to share details of the research study and obtain agreement for distribution of survey.

6	Distribute survey	Survey link, which included introduction to the survey and rationale for its completion distributed to metro-Winnipeg teachers.
7	Complete data analysis	Collect data and begin working through the coding frame (Bogdan & Taylor, 1998; see Table 3.4) and analysis.
8	Write up data analysis findings	

Before going further, a brief note on terminology: why survey informants, rather than survey respondents? The challenges that Atkins and Wallace (2012) identify with a *respondent* survey is that it remains structured and rigid, meaning the “researcher is unlikely to glean any information which might lie outside the limits of knowledge and understanding they had when devising the questions” (p. 88). Conversely, the *informant* survey offers more space for a collaborative approach to the survey, and more leeway for the interviewee to offer insight towards understanding their experience and the case, than the researcher may have anticipated in the question development stage. A well-crafted questionnaire can lead to defining survey respondents as ‘informants’ rather than ‘respondents’.

Outside of the demographic questions (school division, grade level assignment and years of experience), the survey design did not include dichotomous, multiple choice, rank ordering, rating or Likert-scale responses. Instead, open-ended typed responses were invited. The focus on open-ended questions is an intentional methodological decision, as open-ended questions are oriented towards an informant rather than respondent approach and align well with an interpretivist/constructivist methodology. Braun et al., (2021) emphasize the contribution that online administered open-ended surveys can make to interpretivist research, claiming that, because participants respond by typing responses in their own words, rather than selecting from predetermined response options, fully qualitative surveys can produce the rich and complex accounts of the type of sense-making typically of interest to qualitative researchers – such as participants’ subjective experiences, narratives, practices, positionings, and discourses (p. 641).

Crafting effective open-ended survey questions should aim to strike a balance between providing sufficient information to the respondent without leading them to narrow responses. Good qualitative survey questions Braun and Clarke (2013) note, are generally open, and as short, and expressed as clearly and unambiguously, as possible. Questions that avoid leading responses strive to avoid making assumptions about how informants might think, feel, or experience their work. Finding a balance between offering examples of how a respondent might respond with leading questions is an important balance to consider.

Valli (2017) points out that even though open-ended questions are not naturally disposed to statistical analysis, through systematic analysis the researcher can classify or generalize towards themes. It is recognized that open-ended surveys require more time for analysis; however, I agree with Cohen, Mannion and Morrison (2005) that it is necessary for opening space for informants to provide “gems of information” as well as “authenticity, richness, depth of response, honesty

and candour which... are the hallmarks of qualitative data” (p. 255) that might otherwise not have been captured in closed questions.

Careful wording of the survey questions is required to pull rich and insightful data from informants. However, an insight that I have gained from discussing my ongoing research in PBE is that many teachers and administrators in K-12 education *do not know what place-based education is*, even if they hold philosophies and enact practices of education that overlap with what could be defined as PBE. This poses a challenge when working through the process of question design: how do I articulate what information I am seeking from informants?

Borrowing from Artino and colleagues (2014) work on constructs, we can articulate this as a ‘construct knowledge gap’. Lack of knowledge pertaining to a construct should prompt the survey administrator to adjust the language towards more accessible terms. Therefore, in my survey, rather than soliciting responses directly to the construct of ‘place-based education’, I will use descriptors of the construct, such as ‘places in the community’, ‘businesses and organizations’, and ‘people working in fields with expertise’. When discussing the content of learning in PBE, terms such as ‘social justice’, ‘reconciliation’ and ‘climate change’ or ‘environmental education’ are preferred. Below (Table 3.2) is a generated list of sample descriptors for the construct of ‘place-based education’ which result from my synthesis of PBE definitions in the literature review.

The list of PBE Construct Descriptors (Table 3.2) was taken and tending to Artino et. al’s. (2011) guidance to, “writing questions rather than statements, avoiding negatively worded items and biased language, matching the item stem to the response anchors and using response anchors that emphasize the construct being measured rather than employing general agreement response anchors” (in Artino, et al., 2014, p. 466), a list of survey questions was generated (Table 3.3 and Appendix 1.0).

Table 3.2

Place-based Education Construct Descriptors

● Action ● Businesses ● Citizen ● Community ● Climate change ● Culture ● Economy ● Environment	● Experiential learning ● Experts ● History ● Issues ● Integrating curriculum ● Interdisciplinary ● Inquiry ● Local	● Organizations ● Outdoor learning ● Place ● Politics ● Project-based learning ● Reconciliation ● Social ● Social justice
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Table 3.3*Survey Questions*

Demographic Questions (1-5)	1. Which school division do you currently work in? a. Louis Riel b. Pembina Trails c. River East Transcona d. St. James Assiniboia e. Seven Oaks f. Winnipeg 2. What grade(s) do you currently teach? (Click all that apply) a. Kindergarten b. 1 c. 2 d. 3 e. 4 f. 5 g. 6 h. 7 i. 8 j. 9 k. 10 l. 11 m. 12 3. Please select teachable subjects that you most closely identify with: a. Generalist (I identify with four or more subjects) b. English c. Mathematics d. Social Studies e. Science f. Art g. Music h. Health i. Physical Education j. Drama k. Food and Nutrition l. Industrial Arts m. Computer Sciences
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	n. Other (Please detail) 4. How many years of full-time classroom experience do you have? - Less than one 1-5 6-10 11-15 16-20 21+ 5. Identify your current employment status with the school division. - Part-Time (Term) - Full-Time (Term) - Part-Time (Permanent Contract) - Full-Time (Permanent Contract)
General Education Questions (6-9)	6. I entered the teaching profession because... 7. In my view, the purpose of education is... 8. A typical teaching unit in my classroom... 9. Are there any theories of education or teaching practices that guide your planning and instruction?
Place-Based Education Questions (10-17)	10. Have you used people from the community as resources in your teaching? For example: non-teacher content experts, business owners, or those from community organizations. If so, can you share who these people were, and how were they used? 11. Have you visited places in the community in your teaching? For example: natural spaces, businesses or organizations, educational sites. If so, can you share where you visited, and how these places were used? 12. When planning for people or places in mind, were they used as foundational (as a starting point for lessons or learning) or supplementary (to enhance ongoing lessons or learning), or unrelated (a one-off visit)? Please explain. 13. If people and places from the community were used in your teaching, in what ways (if at all) were they connected to the Manitoba curriculum? Can you name specific subjects or units? 14. Have you designed and facilitated a lesson, lessons, or units that connect with students' understanding of their community or neighbourhood? If so, can you share how? 15. Please explain, if at all, what role issues of culture, economy, environment, history, or politics of the neighborhood or community have in your teaching?

	16. Can you identify any barriers (time, money, curriculum, support, interest, school location, etc.) to including people, places or community issues in your lesson planning? 17. Can you identify any supports (time, money, curriculum, support, school location, etc.) that make bringing people, places or community issues in your lesson planning easier?
Closing Questions (Open Ended)	18. Do you have interest in bringing people, places and issues in the community into your lesson planning? 19. If yes, please share any ideas that you may have. 20. Is there anything else you would like to add?

Survey length is a consideration both for informant completion and ensuring that the data is manageable for analysis. Braun et al. (2021) suggests that in general, “the longer the survey, the greater the potential for participant disengagement and/or fatigue, resulting in increasingly shorter or incomplete responses” (p. 648). Fifteen-minutes is an appropriate length of time to ask from an adult informant to complete a survey, suggests Valli (2017). Qualtrics survey tool (detailed below) offered a diagnostic assessment to predict that the length of this survey was approximately 17-minutes. Responses to the survey were anonymous, with informants only needing to include their school division, current grade level assignment and years of experience.

Valli (2017) suggests that demographic information is best at the start of a survey to establish (to the extent possible) a relationship with the informant and framing of how their demographics and geographical location are important for the responses they provide. The most important data that the researcher seeks should come in the middle of the survey as this is when interest is highest. While viewing all questions of importance in the survey (Table 3.3), I structured the survey to include possibly the most important questions in the middle of the survey.

Survey Distribution

This survey used Qualtrics XL, a qualitative research software provided to faculty at the University of Winnipeg free of charge, making this mode of research affordable and accessible for this study. Qualtrics includes professional design options, allows researchers to build and analyze surveys that fit their needs and offer several tools to synthesize data. Qualtrics ensures that data is encrypted and stored in North America.

I reached out individually to the six metro-Winnipeg school division board offices requesting distribution of the survey through email. Of those six, one agreed immediately, a further two agreed after completion of a Divisional Research Ethics form, while then receiving approval from superintendents. Of the remaining three Divisions, two did not respond to requests, and one declined involvement (after 7 months of conversation regarding the project). Email distribution began in mid-September 2024 and closed at the end of November 2024. There

were 86 survey responses, which after eliminating incomplete and bot responses led to 30 survey responses for analysis.

Many considerations were made to increase informant response rates. Firstly, I dialogued with the six metro-Winnipeg school division board offices to explain my position, intentions of research, and to secure permission for the distribution of the survey to their K-12 teachers. Once approved, an email was crafted introducing myself, the intentions of the survey and a hyperlink to complete the survey. Secondly, I offered survey respondents the opportunity to opt-in to a prize draw for one of eight \$50.00 gift cards. Informants were invited to click a link to an external website which will collect their name and contact information; by entering these details on an external site, informants' survey responses could not be connected to their name and contact information. Thirdly, the survey was promoted through a professional LinkedIn account. Using LinkedIn was not initially an intended method of survey distribution but was prompted by lack of support from all metro-Winnipeg school divisions and then low uptake from those Divisions who did agree. After launching the survey on LinkedIn, a number of bot responses emerged; these were identified by submissions in languages other than English or questionable responses associated with email addresses that appeared to be bot generated.

Data Analysis

Taylor and Bogdan (1998) caution that qualitative data analysis is “not fundamentally a mechanical or technical process; it is a process of inductive reasoning, thinking and theorizing” (p. 140). Nevertheless, there are common practices to qualitative data analysis. This study followed an adapted version of Taylor and Bogdan's (1998) Data Analysis Framework (Table 3.4), split into two stages (discovery and coding), together containing 11-steps.

Table 3.4

Eleven-Step Data Analysis Framework

Stage	Step	Detail
Stage 1: Discovery (Identifying themes and developing concepts and propositions)	A: Read the data	Reading and re-reading the data until researcher has a deep understanding of what has been said.
	B: Track personal reflections	Taking notes during the data reading, either directly on transcripts or in separate notes to track hunches, interpretations and ideas.
	C: Look for emerging themes	Looking for recurring words, ideas, and patterns within questions or throughout responses.
	D: Construct typologies	Also known as classification schemes, developing (or using already existing)

		descriptors of commonalities amongst respondents.
	E: Develop concepts and theoretical propositions	Shifting from description to interpretation and theory. Stage 1 steps E1-3 leads the researcher to put forth a ‘proposition’ (a general statement grounded in the data): 1: Searching for words/phrases in informants’ responses that capture the essence of thought or action 2: Comparing statements and actions to see if a concept unites them 3: Looking for similarities in the concepts/themes
	F: Read and link to prior research	Looking for conclusions in similar studies, which can lead to helpful interpretation of the data.
	G: Develop visual representations	May include creating charts, diagrams, and figures to highlight patterns in the data.
Stage 2: Coding (Refining understanding of the subject matter through data)	A: Develop a ‘story-line’	A story-line answers the question: <i>What is this a study of?</i> A story-line provides clarity on which concepts/themes to emphasize and how data should be organized/coded.
	B: Link story-line to themes	Listing all major themes, typologies, concepts and propositions and how they relate to the story line. Collapsing overlapping themes; set aside irrelevant themes.
	C: Data coding	Non-interpretive mechanical process of sorting data into coding categories using symbols. Adding, collapsing or expanding coding categories; only rule: “do what makes sense to you and helps you theorize” (p. 156).
	D: Compare data and refine your analysis	Moving from ‘participant said’ to generalized statements that summarize responses.

Note. Adapted from Taylor and Bogdan (1998)

The intention of ‘Stage 1: Discovery’ was to engage in deep and repeated cycles of reading and documenting to surface important themes from within individual responses and across responses in the data. ‘Stage 2: Coding’ involved developing an anchor narrative (story-

line) that stated the intention of the study, synthesizing emerging themes to align with the intentions of the research project. Although the survey question order in Table 3.3 can be viewed as thematic, this study followed Braun and colleagues (2021) guidance of avoiding data analysis which neatly organized under each question, and instead sought to “treat, and work with the data as one cohesive dataset, coding, and developing analytic patterns across the entire dataset” (p. 650), which stays truer to an interpretivist paradigm and is more likely to unearth ‘meanings’ within the data. Taylor and Bogdan’s (1998) data analysis framework meant avoiding narrow conceptualization of themes tied to specific questions. Findings of the survey questionnaire will be explored in Chapter 4. The remainder of Chapter 3 will focus on Part 2 (Parts A and B) of the dissertation, the action research study.

Research Methods: Action Research

The intention of the survey questionnaire was to provide a macro perspective of the current role of PBE in the metro-Winnipeg K-12 education system. Action research, the second study in this dissertation offered a micro perspective of the realities of implementing PBE. Like Harrison (2011) I was drawn to understanding the current state of PBE and CPBE in my own context (Winnipeg) and was interested in undertaking an active and collaborative research study with practicing K-12 teachers in this city. These goals align with the potential of using an AR methodology.

My approach converged and diverged with Harrison (2011) whose work was discussed in Chapter 2. Unlike Harrison (2011) whose method was to ‘pull-out’ place-based educators from their workplaces for AR through professional learning and dialogue, I sought to collaborate directly with teachers as they implemented PBE in their classrooms. Within the single project there were two lines of inquiry: one derived from individual teachers’ own inquiry questions around PBE theory and practice, and one from my own research interests on PBE that connect the threads of the individual teacher’s action research project. The following section will map out the history, typical practices of action researchers and case studies which are aligned with my action research methods, which are detailed at the close of the chapter.

Introduction to Action Research

In traditional educational research, researchers are themselves removed from the object of study, to distance the researcher from the participant or environment (Greenwood & Levin, 2007). These researchers may identify an issue or problem, observe and collect data from participants through qualitative, quantitative or mixed methods, draw conclusions and make recommendations that are reported back to participants, organizations and often published for wider audiences.

Action research takes a different approach to research. A complete definition that encapsulates the array of AR approaches is provided by Reason and Bradbury (2006); for them, AR is,

a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes grounded in a participatory worldview... it brings together action and reflection, theory and practice, in participation with others, in pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons in their communities (p. 1).

The key traits, as identified and at times repeated in this definition – practical, participation, democracy, human development – establish AR as research that offers something different than traditional scholarly work. As AR is considered in some parts of academia a non-traditional approach, this chapter will spend more time outlining the methodology to make a robust case for its use in my dissertation.

Action research distinguishes itself from traditional modes of research in two significant ways. Firstly, the researcher is present and directly involved with research participants as part of the research process, what is called an “emergent, evolutionary and educational process of engaging with self, persons and communities that needs to be sustained over a significant period of time” (Reason & Bradbury, 2006, p. 12). There is a relationship established between researcher and participant and/or organization who works alongside them throughout the research process.

Secondly, that the researcher holds political objectives in their decision to work in partnership with participants through the research process to create positive change for people and institutions. Action research aims to be highly democratic, with the problems that an intervention seeks to address being co-constructed by the participant themselves or in collaboration between the participant and researcher. Kemmis, McTaggart and Nixon (2014), claim that all AR holds a disposition of,

the capacity of people living and working in particular settings to participate actively in all aspects of the research process; and that the research conducted by participants is oriented to making improvements in practices and their settings by the participants themselves (p. 4).

The question or questions from the participants are central to AR and actively seek to improve participants’ understanding of their institution and interaction with it and within it.

The tradition of AR, writes Blaikie (2009), commits to larger aims than understanding the world and instead aims to braid research with informed action. In doing so, it differs from more conventional research in that the researcher may take the role of facilitator or resource person who helps a group of people change their own situation from the inside, rather than the researcher adopting the role of outside expert who tries to bring about change by external intervention (p. 73).

In practice this means that AR is a highly social process that involves collaborative, generative cycles of self-reflection between researcher and participant: planning, acting, reflecting and documenting the process. This aligns very well with a methodology that can provide both answers to my research questions and engage meaningfully in the growth of PBE in Winnipeg. The work of Greenwood and Levin (2007) is highly instructive to how my AR study will be

oriented and enacted. They outline five characteristics of action research, seen below in Table 3.5:

Table 3.5

Characteristics of Action Research

1	Context bound and addresses real-life problems holistically
2	Inquiry through which participants and researcher co-generate knowledge using collaborative communicative processes in which all participants contributions are taken seriously
3	Treats the diversity of experiences and capacities within the local group as an opportunity for the enrichment of the research action process
4	Meanings constituted in the inquiry process leading to social action, or these reflections on action lead to the construction of new meanings
5	Credibility-validity of action research knowledge is measured according to whether actions that arise from it solve problems (workability) and increase participants control over their own situations

Note. Adapted from Greenwood and Levin (2007, p. 63)

History of Action Research

Action research as an approach to both qualitative and quantitative study can be traced back to the early twentieth century (Kemmis, McTaggart & Nixon, 2014), but was popularized through the work of Kurt Lewin beginning in the 1950s. Lewin was interested in breaking down the boundaries between academic and non-academic world and involving participants themselves in the research process, including participants working in institutions conducting research on themselves and their organization in an effort to create transformation. His proposal for doing so described AR as ongoing cycles of planning an intervention for change, enacting the intervention, observing, reflecting and restarting the cycle, a process closely aligned with Dewey's application of the scientific method to learning (Mertler, 2009).

Social change is a motivator strongly connected to AR projects, and is particularly influenced by critical theory, or critical pedagogy in the educational realm (Greenwood & Levin, 2007). Topics that have adopted an AR approach have included school reform and teacher as change agent in the 1960s and 1970s, sexism, class and Indigenous education in the 1970s and 1980s and in recent years a heavy focus on climate change and the environment, that have, brought about changes in the ways schools use energy, water and other resources, and changes in the way students understand themselves as connected, through their communities, to the natural world they inhabit, as members of one species that is

interdependent with other species and on the physical world (Kemmis, McTaggart & Nixon, 2014, p. 14).

What is apparent is how many of the changes brought about by AR projects in education – environment, consumption, citizenship, relationship between the individual and the natural world – align with the topics highly suitable to PBE.

There was a notable shift, write Greenwood and Levin (2007) in the 1980s away from socio-technical thinking towards a scholarship that reduced the hierarchies between academia and the working class, where the main emphasis was “on constructing dialogues that enabled participants to create a language describing their own life world, a language that subsequently would lead to organizational change” (p. 26). Overt political motivations pushed for this shift, as scholars understood the potential of fusing the knowledge and resources of higher education with the knowledge and access to workplaces that workers could provide.

In short, what can be learned from the history of AR is that it is a method that began on the margins of acceptable scholarship but rode the wave of post-modern and post-positivist approaches to research. Today, AR is an established mode of research which prioritizes horizontal, participatory and democratic perspectives and often draws in active application of critical theory towards improving the conditions of individuals, communities and organizations.

This dissertation offers a great opportunity for using AR as a method to answer questions about PBE and support its implementation. As Anderson and Jones (2000) suggest, the origins of AR dissertations were insiders motivated partly by the convenience of studying their own site, but more importantly determined to enact meaningful change to their institution to which they would become more knowledgeable and empowered, in turn leading to those connected to the institution benefitting. Owing to the significant impact potential that AR holds it is an appealing research method for doctoral students, including those in education.

Approaches to Action Research in Education

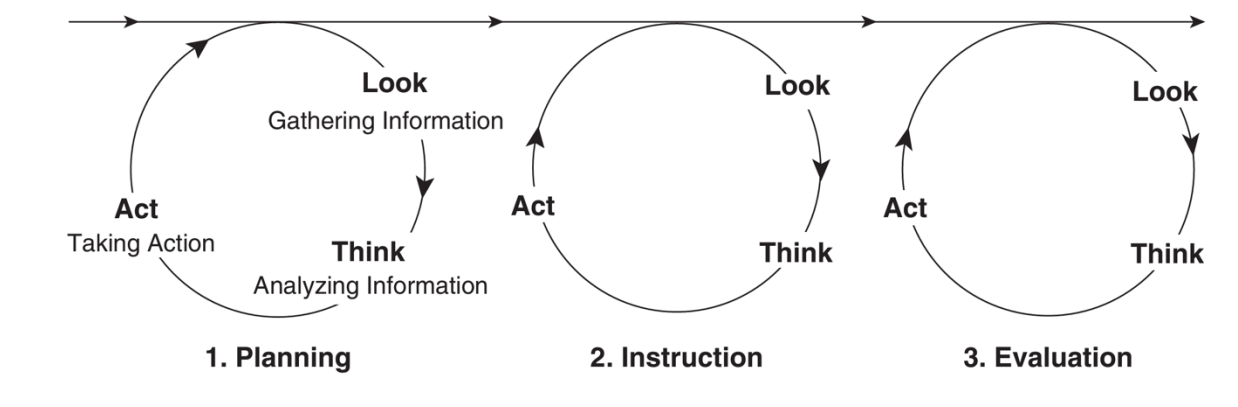
As there is a variety of ways that scholars have utilized AR, Greenwood and Levin (2007) stress that AR should not be pigeon-holed as exclusively a qualitative practice, as the method needs to be flexible enough to allow for quantitative and mixed methods, should they be the best placed to answer the questions and make the social change required by participants and institutions. Nor is it applied research because it does not separate thought from action. Yet there remain a few characteristics that define AR, namely that it must include action, research and participation (Greenwood & Levin, 2007).

The field of education has increasingly utilized action research as a research method – “there is no substitute to learning by doing” write Greenwood and Levin (2007, p. 2) – yet owing to the time and depth of engagement it demands of primary investigators, AR today remains admired, if not widely adopted. Action research in education is often associated with teacher self-study (E.g., Mertler, 2009; Stringer, Christensen & Baldwin, 2009; Halber & Kaser, 2022). In this form of action research, a practicing teacher will enter ‘spirals of inquiry’ (Halber &

Kaser, 2022) or as Stringer, Christensen and Baldwin (2009) assert, repeated cycles of observation, reflection and action on their practice (See Figure 3.2) of their own practice.

Figure 3.2

Action Research Cycle



Note. See Stringer, Christensen & Baldwin (2009, p. 1)

Teacher AR is used across the world as a personal and often informal process of testing out pedagogical practices in classrooms, soliciting formative and summative feedback from learners and adjusting teaching practice accordingly (Breakspear & Jones, 2021). In this way, teachers become researchers of themselves, with the classroom and learners within it becoming subjects of analysis. Action research in teacher self-study is but one mode of AR, but the profession of education in this sense is uniquely positioned to welcome other more collaborative forms. Mertler (2009) outlines common characteristics to all forms of AR in education below in Table 3.6.

Table 3.6

Common Characteristics of Action Research in Education

1	A process that improves education, in general, by incorporating change
2	A process involving educators working together to improve their own practices
3	Persuasive and authoritative, as it is done by teachers for teachers
4	Collaborative; composed of educators talking and working with other educators in empowering relationships
5	Participative, since educators are integral members – not disinterested outsiders – of the research process

6	Practical and relevant to classroom teachers, since it allows them direct access to research findings
7	Developing critical reflection about one's teaching
8	A planned systematic approach to understanding the learning process
9	A process that requires us to "test" our ideas about education
10	Open-minded
11	A critical analysis of educational places of work
12	A cyclical process of planning, acting, developing, and reflecting
13	A justification of one's teaching practices

Note. See Mertler (2009, pp. 19-21).

Herr and Anderson (2012) consider the situatedness of the researcher and participants in the form of a spectrum featuring the polarities of 'insider' and 'outsider' (Table 3.7). Insider research is undertaken as a form of self-study in professional practice, with outsider research documenting the process of insiders conducting AR. The authors further argue that 'reciprocal collaboration' is "*the ideal form of action research*" and well suited to a doctoral dissertation (my italics) (Herr & Anderson, 2012, p. 38). Going further, Kemmis and McTaggart (1987) argue that "*it can only be defined as action research when the project is collaborative*" (my italics), and where data collection is derived from "the perceptions of practitioners within a particular local context [and] bounds episodes of research according to the boundaries of the local context" (p. 86), which sits in agreement with Greenwood and Levin's (2007) position, in that the closer research aligns with each of the insider/outsider polarities, the less it meets the definition of AR.

Table 3.7*Continuum and Implications of Positionality in Action Research*

	Positionality of Researcher	Contributes to:	Traditions
Insider ----- Outsider	Insider (Researcher studies own practice)	Knowledge base, improved critiqued practice, self/professional transformation	Practitioner research, autobiography, narrative research, self-study
	Insider in collaboration with other insiders	Knowledge base, improved critiqued practice, professional/organizational transformation	Feminist consciousness raising groups, inquiry/study groups, teams
	Insider in collaboration with other outsiders	Knowledge base, improved critiqued practice, professional/organizational transformation	Inquiry/study groups
	Reciprocal collaboration (insider-outsider teams)	Knowledge base, improved critiqued practice, professional/organizational transformation	Collaborative forms of participatory action research that achieve equitable power relations
	Outsider collaboration with insiders	Knowledge base, improved critiqued practice, organizational development/transformation	Mainstream change agency: consultancies, industrial democracy, organizational learning; Radical change: community empowerment
	Outsider studies insiders	Knowledge base	University-based, academic research on action research methods or action research projects

Note. See Herr & Anderson (2012, p. 31).

In practice, the common methods of AR are through spirals of action. Kemmis, McTaggart and Nixon (2014) in the *Action Research Planner* identify repeated cycles of ‘say’, ‘do’ and

‘relate’, and in earlier work Kemmis (1982) outlined four steps that are often part of the AR process: 1) a plan of action to improve what is already happening; 2) implementation of the plan; 3) observation of the effects of action in the context in which it occurs; 4) reflection of these effects as a basis for further planning, subsequent action and on, through a succession of cycles. This cycle can be adapted to suit the context and needs of the research participants in the project, with data collection methods established in dialogue between participants and lead researcher.

Today, much AR follows this framework, although as Kemmis, McTaggart and Nixon (2014) suggest, “the process is likely to be more fluid, open, and responsive” owing to “the criterion for success [as] not whether participants have followed the steps faithfully, but whether they have a strong and authentic sense of development and evolution in their *practices*, their *understandings* of their practices, and the *situations* in which they practice” (pp. 18-19) and that these processes are undertaken collaboratively between researcher and participant(s).

Action Research Method

Action research design is emergent, and “the methodology section of a proposal is the researcher’s best guess as to what will transpire in the field” (Herr & Anderson, 2012, p. 76). Nevertheless, the research outsider needs to have a tentative plan for their supervisor, committee, the Research Ethics Board and potential research participants. This research project is situated as Reciprocal Collaboration (Insider/Outsider Teams) (Table 3.7), with myself as outsider-researcher, and recruited participants as insider-teachers. Reciprocal collaboration, write Herr and Anderson (2012) involves *cooperation*, *co-learning* and *collective action* (Table 3.8). The democratic approach of ‘reciprocal collaboration’ means that the project leads to processes and findings that are of value to the researcher, participants and wider community (Reason & Marshall, 1987).

Table 3.8

Reciprocal Collaboration in Action Research

Criteria	Detail
Cooperation	Where local people work together with outsiders to determine priorities and research questions, but responsibility remains with outsiders for directing the process
Co-learning	The process of local people and outsiders sharing their knowledge to create new understanding and work together to form action plans, with outsider facilitation
Collective action	Local people setting their own agenda and mobilizing to carry it out in the absence of outside initiators and facilitators

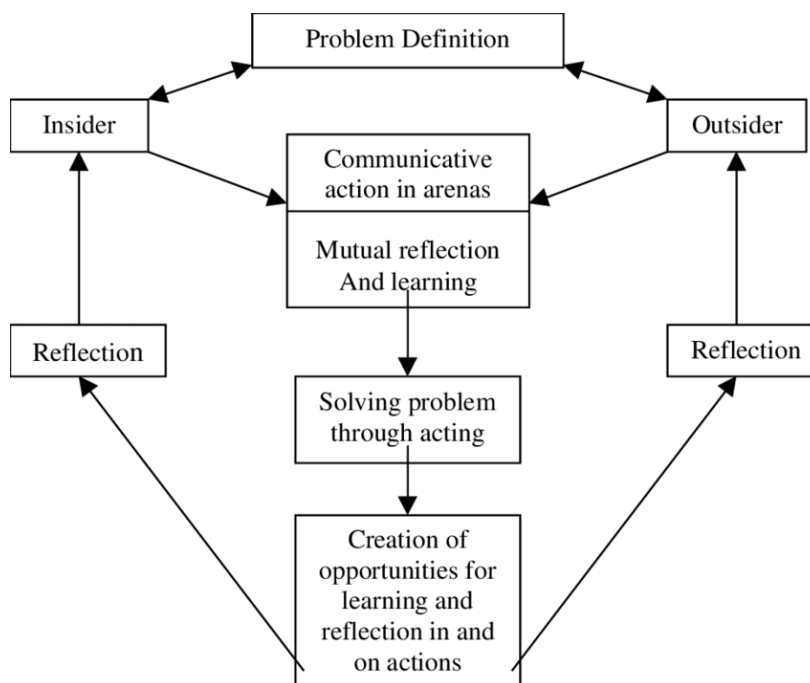
Note. See Herr and Anderson (2012, p. 40).

An umbrella term that is often referenced in AR and which encapsulates the work of cooperation, co-learning and collective action is ‘critical reflexivity’. Starr and De Martini (2015) claim that “practically, being reflexive warrants more than looking back to contemplate events. Instead, reflexivity requires consideration of how the actions and ideas associated with events have contributed to the construction of meaning” (p. 72), which includes a significant awareness of researcher positionality, including power, gender, age, and employment status for example. Danielewicz (2001) argues that awareness into action is a method of meaningful work with a reflexive stance, stating, summarized the importance of a reflexive stance:

Reflexivity is an act of self-conscious consideration that can lead people to a deepened understanding of themselves and others, not in the abstract, but in relation to specific social environments... [and] foster a more profound awareness... of how social contexts influence who people are and how they behave... It involves a person’s active analysis of past situations, events, and products, with the inherent goals of critique and revision for the explicit purpose of achieving an understanding that can lead to change in thought or behaviour (pp. 155–156 in Starr and De Martini, 2015).

As a starting point for the reflexive stance, earlier I outlined my positionality. The insider/outsider collaboration through the Greenwood and Levin’s (2007) Cogenerative Model (Figure 3.3), decision making over data collection methods will require ongoing critical reflexivity. I used the Researcher Journal (discussed below) as an important site for logging my work and reflective practice.

Greenwood and Levin (2007) offer a more detailed approach to action research cycles of action through the ‘Cogenerative Model’ (Figure 3.3). This model consists of a cycle of repeating stages where the question is co-created between researcher (outsider) and research participants (insider), but ‘owned’ by the insiders. What distinguishes the Cogenerative Model from other AR cycles is the separation between the insider and outsider as they reflect and plan before gathering together in ‘arenas’. Together the researcher and participants engage in a colearning process aimed at answering the question, and if necessary, reformulating the question based on feedback. I used the Cogenerative Model of Action Research (Figure 3.3) outlined below in my study.

Figure 3.3*The Cogenerative Model of Action Research*

Note. See Greenwood and Levin (2007, p. 92).

The Cogenerative Model (Figure 3.3) aimed to be reciprocal in that by the end of the project both parties perceive they have benefitted. However, it is understood that in the initial stages this may be unlikely. Greenwood and Levin (2007) note that as the outsider can walk away from the project at any point, the insider is connected to the institution and has more control over the delivery of the intervention. In my research project this holds true: the insider as classroom teacher was responsible for lesson plan design, facilitation and assessment, the needs of learners and answerable to school leadership and parents. As an outsider with experience as an insider, I felt that I could bring this knowledge to better support and navigate the Cogenerative Model. I could also offer additional knowledge, time and resources to the action research project that were beyond the capacity of the insider. Together, “the asymmetry in skills and local knowledge is an important force in cogenerated new understandings as the parties engage each other to make sense of the situation” (Greenwood & Levin, 2007, p. 95). The goal ultimately was knowledge transfer between the insider and outsider for a mutually beneficial process.

It should be noted that the literature on AR often outlines the action research process as involving multiple participants involved in a single issue, or multiple participants with similar contexts meeting to discuss an array of issues. By working individually with research

participants and not intentionally drawing them together, this project was, in a sense, multiple iterations of a similar action research project. The over-riding concern driving the decision not to bring research participants together was logistics. Coordinating participants during the school day would have been highly challenging, and I did not see it appropriate in asking participants to meet during evenings or weekends for in-person or virtual dialogue or data collection. The exception would have been if participants were interested in doing so, or that an appropriate forum for doing so emerged. With these considerations in mind, I followed the steps outlined in Table 3.9.

Table 3.9

Action Research Methods Timeline

Date	Step	Details
May / June 2024	Teacher-Insider Recruitment	1. Solicited potential action research participants through convenience sampling. 2. Emailed potential participants more details regarding project. Invited responses from potential participants to have a phone call conversation regarding participation. Considered the following criteria for participant selection: demographics including grade level, school division, place-based education plan 3. Participants completed Consent Form. 4. Initiated plan for co-planning unit in Summer or Fall 2024.
Summer 2024	Insider/Outsider Co-planning	5. Developed agreement with participants on place-based unit, appropriate arenas and data collection methods.
Fall 2024	Begin Place-Based Education Units	6. Initiated place-based education units; initiated Cogenerative Model for Action Research (Figure 3.3) (Greenwood & Levin, 2007) with agreed upon arenas and data collection (adjusting as necessary).
Winter 2025	Conclude Place-Based Education Units	7. Concluded place-based education units and data collection; invited teacher-insiders to provide a concluding interview or self-reflection of the process.

Winter / Spring 2025	Begin analysis report writing	8. Began data analysis and report writing.
Summer 2025	Member checking	9. Consulted with participants to verify emergent findings from data analysis.

Participant recruitment. Timing was critical for this project. I had originally intended to distribute the survey questionnaire in spring 2024 with a view to using the survey as a recruitment tool for the action. Identifying potential participants by the end of May would mean that I could secure participants by the end of June and potentially collaborate with them in planning over the summer before the 2024/25 school year began. This window would also allow for analysis of survey questionnaire data in summer 2024 in advance of the place-based project commencing in the fall.

From the outset I aimed to recruit 3-4 participants from across the metro-Winnipeg K-12 education system, including traditional and alternative schools. There is no target number identified in action research scholarship, but 3-4 was an ideal number for a project of this design, while working within the parameters of my work schedule as a post-secondary lecturer. I was aware that some participant attrition may occur, where participants opt out of the project, and wanted to ensure that there is sufficient data across classrooms as a buffer.

Convenience sampling is undertaken by researchers who contact potential participants directly and invite them to participate in a study (Tomal, 2010). For this study, five teachers from the K-12 system were contacted through my personal network, with four agreeing to participate and three starting and finishing the study. Convenience sampling was the preferred method for participant recruitment for the following reasons:

- 1) Delays with securing approval from School Divisions for the distribution of the survey and then securing optimal time for distributing the survey (October to December 2024) meant that identifying potential research participants would have pushed the action research study to Winter or Spring 2025.
- 2) Connecting with potential research participants in Summer 2024 with a view to planning and facilitating PBE in September to January was ideal. As the scholarship on action research suggests, taking time to establish a rapport with insiders is an important consideration for successful projects (Herr & Anderson, 2012; McLean & Williamson in Merriam & Grenier, 2019). The summer-to-winter timeline increased the possibility of this. From my experience, teachers begin action projects early in the school year to take advantage of the seasonable weather.
- 3) Trust. With a deadline to complete the dissertation looming and a tightening of the participant recruitment timeline, a significant weight for the successful completion of the study on recruitment of research participants who would commit to completing the project through to the close. I contacted those who I had prior collegial relationships with.

However, due to delays securing permission to distribute the survey to metro-Winnipeg school divisions, the survey would not be ready to distribute until fall 2024. As the scholarship on action research suggests, taking time to establish a rapport with insiders is an important consideration for successful projects (Herr & Anderson, 2012; McLean & Williamson in Merriam & Grenier, 2019). The spring-to-fall timeline increased the possibility of this. From my experience, teachers begin action projects early in the school year to take advantage of the seasonable weather. Some do so in the spring, but this is a timeline that I wanted to avoid, as it would significantly delay completion of AR projects and completion of my dissertation. As a result, I pivoted away from using the survey to recruit participants through purposeful sampling and instead used convenience sampling (Tomal, 2010). I was aware of a small number of teachers who had demonstrated interest in experiential or inquiry-based learning and who may have been interested in participating. I invited five participants into the study, four of whom agreed, with three ultimately starting and completing the study.

Action Research Data Collection. There are different terms for the spaces in which data collection in action research takes place. For example, Stringer, Christensen and Baldwin (2009) locate this in the ‘think’ stage of the AR cycle. In concert with the Cogenerative Model (Figure 3.2) I will follow Greenwood and Levin’s (2007) work, who frame this zone as the ‘arena’:

locations where the involved actors encounter each other in a material setting for the purpose of carrying on action research. The arena can be a meeting between two and more people, a team-building session, a search conference (sic), a task force meeting, a leadership group meeting, or a public community meeting. The key point is that an arena allows communicative actions to take place in an environment structured for cogenerative learning and research (p. 95).

What is key here is that the methods do not proceed and dictate the action. Fenstermacher (1994) adds further credence to this idea, writing that,

practical knowledge results from participating in and reflecting on action and experience; is bounded by the situation or context in which it arises; may or may not be capable of immediate expression in speech or writing; and deals with how to do things, the right place and time to do them, or how to see and interpret events related to one’s actions (p. 12).

Arenas act as the fulcrum of Greenwood and Levin’s (2007) Cogenerative Model and are the zone in which cycles of action and reflection feedback into, as seen in Figure 3.2.

If researcher-outsiders are to be responsive to teacher-insider needs and context, then pragmatism must guide outsider decisions over data collection methods (Herr & Anderson, 2012). Greenwood and Levin (2007) caution that the designing of appropriate and functioning arenas is “*the central challenge* in any action research project” (my italics) (p. 96). Many of the data collection methods in AR could only be determined in dialogue with the research participants; it was my responsibility as outside researcher to solicit, and adapt, when necessary, the modes to which they are best suited and comfortable engaging in the action research process.

This is a key part of the beneficence of this action research project, for maximizing the benefits of the project while minimizing the challenges.

The following data collection methods detailed in Table 3.10 were all utilized options for this study:

Table 3.10

Action Research Arenas (Data Collection Methods)

Conversations	Casual dialogue on-site at schools, or off-site; arranged in correspondence with researcher; virtual or in-person
Interviews	Formalized interview with structured, semi-structured, or unstructured question and answer; arranged in correspondence with researcher; virtual or in-person; member checking at the close of the project
Email correspondence	Structured question and answer via email; communicative avenue for insider to pose questions to outsider
Participant self-reflection	Structured or open-ended journaling throughout or at the close of project
Field notes / Observations of teaching	Completed in conjunction alongside one or multiple other data collection methods; offers a context for dialogue between the researcher and participant
Researcher journal	“A vital piece of any action research... it is a chronicle of research decisions; a record of one’s own thoughts, feelings, and impressions; as well as a document reflecting the increased understanding that comes with the action research process” (Herr & Anderson, 2012, p. 77).

The exception to collaborative decision making over data collection methods was the researcher journal, which as Herr and Anderson (2012) note, is a critical tool in the outsider researcher toolbox. The research journal offered a form of ‘catalytic validity’, defined as an openness “to reorienting their view of reality as well as their view of their role; all involved should deepen their understanding of the social reality under study and should be moved to some action to change it (or reaffirm it)” (Herr & Anderson, 2012, p. 31). Elsewhere, the research journal provided space for enacting ‘critical reflexivity’, which to reiterate, is a “self-scrutiny on the part of the researcher” (Bourke, 2014, pp. 1–2). The researcher journal was a space to document the ongoing process as a tool for both reflection and data collection.

Action Research Case Studies. In my review of the scholarship on PBE and AR, there were no examples that neatly aligned with this dissertation study. Given the flexibility of AR research methods, this is perhaps not a surprise. Several case studies did offer the types of questions, methods and findings that were of use for reflecting on how I approached, engaged

and reported on this study. McIver (2020) offered one of the few examples of PBE in an AR study. Here the researcher used YPAR (Youth Participatory Action Research) with eight young adults who identified as community activists. Participants engaged in a series of workshops as they developed skills for interviewing activists for a radio show. McIver hosted semi-structured interviews with participants, which along with observations of the workshops and radio show comprised data for the study. McIver (2020) specified four themes emerging from analysis of the data: relationality, place-making, normalizing transgression in everyday life, and using power. The article itself was completed individually by the researcher (who was themselves a high school science teacher familiar with the individual participants, straddling the line between outsider and insider researcher), and included significant passages of direct quotations from the research participants.

One action research project in education blended survey and AR through mixed methods. Howe and Ruberg (2020) studied the effectiveness of a project-based learning approach to computer science called ‘DigiPen’, triangulating evidence of youth voices through online surveys, classroom observations and participant self-reflections completed in a weekly e-journal. Surveys were structured to include both Likert-scale and open-ended questions. Coding data led the lead researchers to identify the most frequently identified outcomes: skill development, career preparedness, inclusion, teamwork and leadership.

As noted in this dissertation, it is relatively rare to see examples of AR completed independently at multiple sites without participants being drawn together as part of the project. An example of where this was part of research design is McNamara and Walker’s (2018) study on an intervention designed for more effective recess programming at seven elementary schools. The researchers solicited feedback from students, recess programming moderators and teachers to understand challenges faced during recess, and how intentional design and training moderators could lead to improved conditions for learners. The findings from the project were: reduced discipline issues, increased collaborative play, increased inclusive behavior, increased prosocial interactions, and increased self-reported enjoyment of recess.

While each of the case studies detailed offer some insight into my proposed research study, all three have departures from my methods. Firstly, all three suggest pre-designed interventions, or research on the impact of interventions; there was no explicit collaboration between insider and outsider to determine what challenges the insider was facing, what changes would the insider like to see, and how the outsider could support this work. Secondly, with the possible exception of McIver’s (2020) study, there were not repeated cycles of AR (Greenwood & Levin, 2007; Kemmis, McTaggart & Nixon, 2017; Stringer, Christensen & Baldwin, 2009), processes of cooperation, co-learning and collaboration (Herr & Anderson, 2012), or models that would align with Greenwood and Levin’s (2017) Cogenerative Model for AR. In short, the literature does not offer any examples of ‘reciprocal insider/outsider action research’ using the Cogenerative Model at multiple sites within the field of education.

One example that does align more closely with these gaps in AR design was a study from Kroeger, Bierne and Kraus (2015). In this project, two high school STEM teachers (Bierne and

Kraus) collapsed their classes into a double-block and co-taught an interdisciplinary project-based approach. Their research questions arose because classroom teachers' were challenged getting students on-task after lunch recess to maximize instructional time. To resolve this issue, they partnered and collaborated with a post-secondary professor (Kroeger). Together the team designed and tested an intervention, reflected on its impact, and continued to repeat the cycle until their goal – of every learner engaged in meaningful work within four minutes of the start of class – was achieved. Their collaboratively published study highlighted the imperative of trust and relationship building to the collaboration, which they considered the key to blending research and pedagogical knowledge. The authors stated that,

the two teachers in this study agreed to always put their relationship first, believing that everything else would follow accordingly. They extended that commitment to their university partner who eagerly reciprocated in kind. It was with that spirit and effort that they laid the groundwork for continuing collaborative work (p. 369).

This is the spirit of reciprocity which I bring to the PBE AR project.

In close, what becomes apparent is that the array of approaches to AR lends towards researchers selecting the best methods in research design for meeting their goals and those of their research participants. For my study, there were important design approaches and research findings that have been identified as useful in my proposed project. Yet, no research design method in my review of the literature neatly aligns with my methods. In this sense, my approach to AR offers not just original research, but an original research method.

Benefits

While I have touched on several benefits that action research methods aim to bring, it is worth reiterating them to close out this chapter. Mertler and Charles (2011) highlight five specific benefits of action research, namely:

teachers get to deal with their own problems; action research is timely... and provides immediate results; it provides educators with opportunities to better understand, and therefore improve, their educational practices; action research can also promote the building of stronger relationships; and possibly most importantly, action research proves educators with alternative ways of viewing and approaching educational questions and problems and with new ways of examining [personal] educational practices (pp. 339-340).

Similarly, I am also drawn to research approaches that reduce the hierarchies between researcher and participants (or the 'researched') and agree with Greenwood and Levin's (2007) wider political goals of AR as a tool for democratic action. For example, the notion of 'practice architectures' (Kemmis, McTaggart & Nixon, 2014) is particularly attractive. Practice architectures are enacting the change that we want to see in wider society by enacting it through praxis. "Transformation is the goal", Kemmis, McTaggart and Nixon (2014) write, "of activities and outcomes, persons/self-understanding, social formation of practice; discourses that orient and inform it, things that are done, and social relations" (pp. 17-18). This work goes beyond

theorizing and directly engages in the modes of school reform that I believe would be beneficial to youth and wider communities.

Yet AR does set up a trade-off of benefits. In reducing the immediate generalizability of research to other contexts, it provides a methodology for directly impacting practices on the ground. Herr and Anderson (2012) add to this, stating that if doctoral students, “choose to engage in action research, then, researchers can expect that their work will contribute to their sense of being-in-the-world, to their praxis, and to the larger conversation regarding the topic under study as well as the process of inquiry” (p. 70). This is not to dismiss the possibility of transferability of findings to another context, but as Lincoln and Guba (1985) suggest “if there is to be transferability, the burden of proof lies less with the original investigator than with the person seeking to make an application elsewhere. The original inquirer cannot know the sites to which transferability might be sought, but the appliers can and do” (p. 298).

As a junior faculty member who foresees the benefits of a place-based approach to learning in the Winnipeg context, this project offered an appealing way to both expand my understanding of the field and support potentially transformative practice in the field. And so, by undertaking AR through a dissertation offers significant potential. Herr and Anderson (2012) point to a distinct lack of published research with AR (though consistent publication of Action Research journals over the last decade indicate this is changing), but that through the intensive focus of a dissertation project, AR dissertations contain a local perspective that few traditional researchers can provide.

Dissemination

Consequently, one of the most powerful rationales for AR is the immediacy of the personal and specific data and feedback which can have an influence on teaching practice for the participating teachers. Albeit on a small scale for this study, the dissemination of knowledge is folded into the research project itself. As Mertler (2009) writes,

action research is intended for more local-level dissemination... the research questions and design are often emergent, changeable, and therefore unpredictable. Therefore, there may be no generalizable conclusions at all, as the findings are context specific and unique to the particular participants and their setting and situation. What matters is typically the improvement of practice, as evidenced by the resulting visible change, not the study’s rigor (as defined by its ability to be generalized)” (p. 27).

I have identified four avenues of interest for dissemination: publishing through peer-reviewed journals; presentation at local, national and international conferences; providing context for PBE courses at the post-secondary level; and, providing context for the ‘Teacher Inquiry Project’.

One channel of research dissemination often used in AR is co-authoring reports of the process with researcher and participant working alongside one another. While my dissertation itself will be solely authored by myself, it includes passages that quote participants at length. I am certainly interested in publications and presentations that emerge from the research to be conducted alongside research participants. Indeed, the Kroeger, Bierne and Kraus (2015)

example above offers but one example of collaborative publication between insider/outsider teams.

Some of the greatest personal benefit is the ability of these research findings to impact the design and facilitation of PBE courses where I can use data from the AR project as examples from the field; to do so within a local context I would suggest, is of utility. This project also provided opportunities to hone my skill of an outsider in AR. In Fall 2025 I started working with a group of high school teachers who are piloting a dual-credit Grade 12 Global Issues course and Grade 12 English Language Arts in what has been called the ‘Teacher Inquiry Project’. There are direct links between this research project and the potential of further AR projects in the field.

To reiterate however, the primary aim of this research was to deepen my understanding of PBE in Winnipeg and to support practicing classroom teachers in engaging in the work of facilitating PBE in their classroom. Reason and Marshall (1987), state this argument, as AR “for me, for us, and for them”, and in doing so,

it speaks to three audiences... it is for them to the extent that it produces some kind of generalizable ideas and outcomes which elicit the response “That’s interesting!” from those who are concerned to understand a similar field. It is for us to the extent that it responds to concerns for our praxis, is relevant and timely, and so produces the response “That works!” from those who are struggling with problems in their field of action. It is for me to the extent that the process and outcomes respond directly to the individual researcher’s being-in-the-world, and so elicit the response, “That’s exciting!” – taking exciting back to its root meaning, to set in action” (pp. 112-113).

Validity

The purpose of assessing validity in academic research is to endeavour towards truths by “establishing rules that separate acceptable from unacceptable research” (Scheurich, 1992, p.5 in Stringer, 2008, p. 48). Broadly, internal and external validity offers a starting point. Internal validity includes the validity of the measuring instrument and its ability to effectively measure what the researcher claims it will measure; the validity of the research design and steps that the researcher takes in using the instrument and engaging with participants (Punch, 2016). External validity refers to the truth status of the research report (Punch, 2016) and both the transferability of the findings to different contexts and the reliability of the research method to be replicable to a different context leading to similar results (Glicksen, 2003).

Scholarship on AR presents many ways of determining validity with this method. There are, Stringer (2008) notes, significant differences in validity between self-study AR and insider/outsider action research, the latter of which this study will follow. Historically, insider/outsider AR is often charged by those outside of qualitative research (and sometimes within) circles with not meeting thresholds of validity because the methodology does not emphasize reliability or replicability. Taylor and Bogdan (1998) push back against this claim, arguing that if research is to be conducted that meaningfully studies the real world, then it cannot be expected to achieve “perfect reliability” (p. 9) as the world is full of nuance. There is an

increasing acceptance of this view in academia, with AR hosting its own SAG group in AERA (American Educational Research Association) and Canadian Society for Studies in Education (CSSE), and two peer-reviewed journals that publish research using the action research methodology (the *Canadian Journal for Action Research* in particular features many articles from education).

Writing specifically to the methodology of AR in education, Stringer (2008) suggests that there is still a search for truths in AR, but rather than absolute, they are “truths-in-context” (p. 47). Stringer (2008) sections validity in educational action research into four: credibility, transferability, dependability and confirmability, which are outlined in Table 3.11 below. These elements of validity are of particular use in the pre- and post-study stages, as they set up appropriate guidelines for action research design and reporting. Table 3.11 contains validity checks that also span the pre- and post-study stages, as outlined by Herr and Anderson (2012). I see these two checklists are complimentary for AR study.

Table 3.11

Pre-Study: Validity in Educational Action Research

Criteria	Definition	Components
Credibility	Plausibility and integrity of a study	<i>Prolonged engagement:</i> The investment of sufficient length of time to develop a deep understanding of a context and relationship with research participants. <i>Persistent observation:</i> Repeated, extended site visits and data collection in the field. Number and duration of observations should be tracked. <i>Triangulation:</i> Use of multiple and varied sources of data. <i>Participant debriefing:</i> Commitment to regulation participant engagement in feedback of action processes and adjustment to future processes. <i>Diverse case analysis:</i> Inclusion of diverse voices and perspectives, particularly those who may not be positively inclined towards the project and its outcomes.

		<i>Referential adequacy:</i> Ensuring that the theoretical framework of data analysis is appropriate for the language and actions of participants. <i>Member checks:</i> Frequent opportunities for participants to review and provide feedback on collected data and its interpretation by the lead researcher.
Transferability	Whether results might be applied to other contexts than the research setting	Aim for the possibility for results of research to be applied to other settings. Thickly detailed descriptions contribute to the trustworthiness of transferability.
Dependability	Research processes are clearly defined and open to scrutiny	The adequacy and appropriateness of the research methods in meeting the purpose of the study. These are made available for research participants and potential audience members.
Confirmability	Outcomes of the study are demonstrably drawn from the data	Data, pre-analysis, is made available for participants and audience to view and evaluate, as aligned with stated research findings.

Note. See Stringer (2008, pp. 48-52).

My study aimed to address all elements of validity from Table 3.11. For example, there were many ways that I met credibility-validity. I collaborated with teacher-insiders from the planning stage of their PBE projects through to their conclusion. ‘Arenas’ and data collection were, as stated, determined in collaboration with the teacher-insider, yet persistent observation of instruction is an element I remained committed to making time for; together different data points will increase the ability to triangulate evidence within classrooms, and across classrooms with multiple teacher-insiders. As detailed earlier, member checking was an ongoing and iterative process.

Herr and Anderson’s (2012) post-validity checks for AR (Table 3.12) offered guidance for how to design, undertake and report on the AR project. For example, catalytic validity and democratic validity were ongoing processes and reflections that were continually cycled through and documented during the individual sites of research with participants. Outcome validity was established at the close of the project between me and participants and confirmed through member checking. The dialogic validity came through both the approval of the dissertation proposal which preceded the research and submission of journal articles on the project to peer-reviewed journals and will finally rest with the decision of the dissertation committee. Table 3.7 and Table 3.8 were important considerations that I continually returned to throughout the project

and used both as tools within data collection arenas, and as reflective points in the critical reflexivity practice. Throughout the study, the research journal offered a space to consider whether I was meeting these standards, and how to adjust practice towards greater validity.

Table 3.12

Post Study: Validity in Action Research Goals

Goals of Action Research	Quality / Validity Criteria	Definition
Generation of new knowledge	Dialogic and process validity	Approval through peer-review of the quality of research and findings
Achievement of action-oriented outcomes	Outcome validity	Resolution of the problem that led to the study
Education of both researcher and participants	Catalytic validity	Not only the participants, but the researcher themselves must be open to reorienting their view of reality as well as their view of their role; all involved should deepen their understanding of the social reality under study and should be moved to some action to change it (or reaffirm it).
Results that are relevant to the local setting	Democratic validity	Extent to which research is done in collaboration with all parties who have a stake in the problem under investigation Local validity: problems emerge from a particular context and in which solutions are appropriate to that context
Sound and appropriate research methodology	Process validity	Extent that problems are framed and solved in a manner that permits ongoing learning of the individual or system

Note. See Herr & Anderson (2012, p. 31).

Ethical Considerations

Ethics in research design, completion, data analysis, reporting and presentation is taking steps to ensure no harm is done to people through their inclusion in the project. Stringer (2008) identifies three key elements of ethical research in AR. Firstly, *confidentiality*, which ensures the privacy of research participants' names during the action research process and reporting. The

question of confidentiality needs particular attention from the researcher owing to the increasing role of storytelling in AR. For example, Denzin (1997) points to,

the need to formulate more evocative accounts that provide empathetic understandings of events and experiences. From this perspective, research reports may look and sound more like fictional works—novels or short stories—than the impersonal, objective accounts common in many official reports (p. 172).

This does, of course, open the research participants to violations of confidentiality if their work and narrative reflections in reports expose their role to a local audience. In my project, participants had the opportunity to provide a pseudonym and waive confidentiality at the close of a project. Waiving confidentiality is a possibility for AR participants who co-author publications on the project or are willing to share their personal experience with a wider audience. Member checking of collected data is an important tool in maintaining ethical standards, particularly if participants are interested in waiving their right to confidentiality. At the time of writing, one participant waived their confidentiality by co-presenting on the study research findings at a province-wide professional development day for K-12 teachers.

Secondly, *permissions* are required to secure agreement from the school or school division regarding the AR project. Across the six metro-Winnipeg school divisions there is not uniformity regarding ethical approval for research. For example, one school division only requires verbal agreement with the Assistant Superintendent for Curriculum, whereas another school division has an established research ethics review board which meet infrequently and was notoriously difficult to gain approval.

Lastly, is *informed consent*, which Stringer (2008) outlines as comprised of six steps:

1. Informing potential participants of the purpose and nature of the study.
2. Asking potential participants whether they wish to participate.
3. Asking confirmed teacher-insider permission to record information they provide.
4. Assuring teacher-insider of the confidentiality of that information.
5. Advise teacher-insider that they may withdraw at any stage and have their recorded information returned.
6. Asking teacher-insider to sign a short document affirming that permission (Stringer, 2008, pp. 45-47).

As noted by Stringer (2008), informed consent must be ongoing. I did not see it incumbent on just the research participant to confirm ongoing consent, but that as the researcher I should inquire as to whether consent is still provided, particularly if a research participant appears to verbally or non-verbally express hesitations about continued collaboration.

In addition, there were further elements that I included to ensure ethical considerations were and remained present. I provided an abbreviated version of the research proposal to potential research participants, and once they agreed to participate, also provided their school administrator a copy of the research proposal and offered to meet with them to discuss the project. I also established agreement over methods of data collection that the research participants are most comfortable with, and revisited this agreement throughout the project,

adjusting if necessary. The initiation of this project was subject to approval from Lakehead University research ethics board (REB).

In addition to the above three elements from Stringer (2008), ethical considerations extend to who owns the data collected in AR projects. I included text in the Letter of Consent from research participants that if they agreed with what had been reported on the data collected, that the data which was used for reporting, including publication of peer-reviewed articles and conference presentations as my property. This is termed the ‘right to retain work’ and detailed by Cohen, Mannion and Morrison (2005) as data which,

provided that those involved are satisfied with the fairness, accuracy and relevance of accounts which pertain to them, and that the accounts do not unnecessarily expose or embarrass those involved, then accounts should not be subject to veto or be sheltered by prohibitions of confidentiality” (p. 68).

As stated previously, there were avenues for insider/outsider co-publishing or co-presenting, however as researcher and owner of the data, I hold the right to determine whether to move forward with this.

Related to but not explicitly mentioned in Stringer’s (2008) work on ethics, but that is detailed in Greenwood and Levin (2007) is for researchers to be attentive to the political nature of AR (indeed, for these authors it is part of why AR is an attractive methodology). Herr and Anderson (2012) unpack the three ways that AR is a political endeavour: (1) action research is nested in educational institutions which are inherently political; (2) as practitioners begin to be involved in AR, either as researchers or participants, they begin to critique the narrowness of current definitions of their roles, and as a result they may attempt to gain (more) control over and redefine one’s profession; and, (3) who creates knowledge is a political question (pp. 64-65). More so, the political nature of what and how students are learning through PBE, particularly if it could be considered critical PBE, might pose ethical questions for the research participants (more on this is detailed in Chapter 2). The political nature of AR, and the political content of PBE only serve to underscore the need for attending to ethical considerations in this project.

This project did not involve collecting and analyzing data from minors. For example, minors were not interviewed, requested to complete surveys, or had their work assessed by the researcher. This research project focused exclusively on teacher theory and practice; however, it is understood that this was not possible without the research participants engaging in the cycles of AR without being informed by student participation in, responses to, and completion of work that significantly informs the AR cycle.

Limitations

The most significant potential limitation of this study was the successful recruitment of and continued involvement of research participants. As all the AR component of this dissertation relied on the participation of teacher-insiders, there was a risk that this study would not be possible to initiate or draw to a successful conclusion. Ensuring that my study was committed and provided ongoing consent was an over-riding concern throughout the work, and required

consistently needing to balance my presence, timing and structure of arenas for the cycle(s) of AR.

Other limitations of the AR stage of the study mirror the wider limitations of AR itself. Many of these limitations have been identified and responded to previously in this chapter, but to briefly reiterate they include:

- reliance on establishing and maintaining relationships of trust between insider and outsider for successful completion of the project.
- relying on a collaborative over dictatorial stance in decision making and data collection; credibility/validity of the results (Greenwood & Levin, 2007) dependent on ability of insiders to solve agreed upon problems.
- challenges with external validity, specifically the transferability and reproducibility to other contexts.
- given the time-bound constraints in a school term that outcome validity (resolution of identified problems) may not be achieved by the close of the study.

In short, many of the possible limitations of this study arose from the messiness inherent to AR and the relative lack of control that the researcher has over the process compared to traditional research methods in education (which led Greenwood and Levin (2007) to remark that, “action research is a constant exercise in humility” (p. 99)). These limitations were mitigated through ongoing reflexivity and good communication between the researcher-outsider and teacher-insider.

This is, what I have called the ‘trade off’ in AR: the potential for direct and meaningful changes on a small scale at the cost of wider generalizability of the project findings. Some authors claim that the limitation of generalizability can be flipped around as a strength. Invoking Geertz’s (1983) notion of ‘thick description’, Herr and Anderson (2012) write that good AR provides insight into a “local reality that the much thinner, but generalizable data of most quantitative research could not provide” (p. 98). It is a trade-off I was comfortable making as a researcher.

Chapter Summary

This chapter began by outlining the research paradigms that orient the dissertation research informed by my researcher positionality and background experience and interest in PBE that I bring to this study. These research paradigms were then linked to the decisions to use a survey and AR method for seeking answers to the research questions. A rationale for the design and distribution of the survey was provided, specifically the reason for specific construct descriptors and using open-ended questions over closed or Likert-scale questions. A detailed description of AR including its history, different approaches, and examples of empirical research in education that offered insight into effective research design was outlined. This chapter closed with a consideration of how the research would navigate and respond to questions of validity and limitations of the survey and AR methods.

Chapter 4 will document the findings of both the survey and AR but do so separately. Chapter 5 will draw together these findings for a thorough discussion of how these findings fit within the broader context of the metro-Winnipeg and Manitoba K-12 education context, their convergences and divergences with previous research in the field, and the directions that this study points to for further exploration.

Chapter 4: Study Findings

Chapter 4 compiles the findings from the survey research and action research. Following Taylor and Bogdan's (1998) Eleven Step Data Analysis Framework from Chapter 3 (Table 3.4), the findings from the survey were organized thematically, linking findings from across question responses (rather than summarizing question responses sequentially). Analysis involved two steps: discovery and coding. Discovery involved reading the data, tracking personal reflections, identifying themes and constructing typologies, concepts and theoretical propositions and linking to prior research. Coding required developing a story-line that was linked to themes and generalized in the writing stage of the dissertation. Taylor and Bogdan's (1998) data analysis framework is not conducive to siloed analysis of question responses. Rather, thematic organization of the survey findings allows for gathering together informants' responses that cut across questions and outline the ways in which the survey themes and story-line mapped onto the action research findings.

Four themes emerged from informants in the survey data: (1) the place-based educators are from a diverse group of K-12 teachers across teaching disciplines and school divisions in metro-Winnipeg; (2) most of these informants utilize place in their teaching to focus on cultural appreciation over critical investigation; (3) that a strong presence of constructivist pedagogies coupled with an interest in connecting more meaningfully with community provides fertile ground for building and expanding the presence of PBE in metro-Winnipeg schools; and (4) informants conceive of 'place' as supplementing curriculum and classroom instruction rather than as a starting point or focus for PBE. The first theme finding is derived from the 'demographic' (Questions 1-5) and 'general education' (Questions 6-9) of the survey, with the subsequent three themes on PBE for cultural appreciation, PBE for supplementing curriculum and instruction, and constructivist pedagogies offering a foundation for building PBE synthesized from the 'place-based education' (Questions 10-17) section of the survey.

Using Greenwood & Levin's (2007) Cogenerative Method (Figure 3.2) for action research and documenting the process and experiences through 'arenas' (Table 3.10) also led to a thematic analysis of six findings. Those findings include: (1) that the research participants saw PBE as a powerful vehicle for bringing their vision of both what content matters and what pedagogies they believed were most effective in facilitating that content, to life; (2) that teachers, and students left the PBE inquiries having learnt something valuable about themselves and the community; (3) related to both the first two points, that teachers reported strong student engagement in the PBE projects; (4) that there was a strong current of CPBE in both of the high school PBE projects; (5) that teachers were able to navigate constraints of PBE practice by leveraging specific catalysts to PBE available to them; and, (6) that all research participants expressed very positive sentiment towards the action research process and outcomes for them professionally.

Survey Findings

Who are the Place-based Educators?

The data collected from informants shows a wide variety of teachers responded to the survey. This included teachers across school divisions in the metro-Winnipeg K-12 system (Figure 4.1), grade levels (Figure 4.2), a range of assigned subject disciplines (Figure 4.3), a broad range of years of experience (Figure 4.4) including part-time and full-time contracts (Figure 4.5). This range of experiences offers a diverse set of informants contributing their utilization of PBE across their schools.

Figure 4.1

Question 1: Which school division do you currently work in? (n=30)

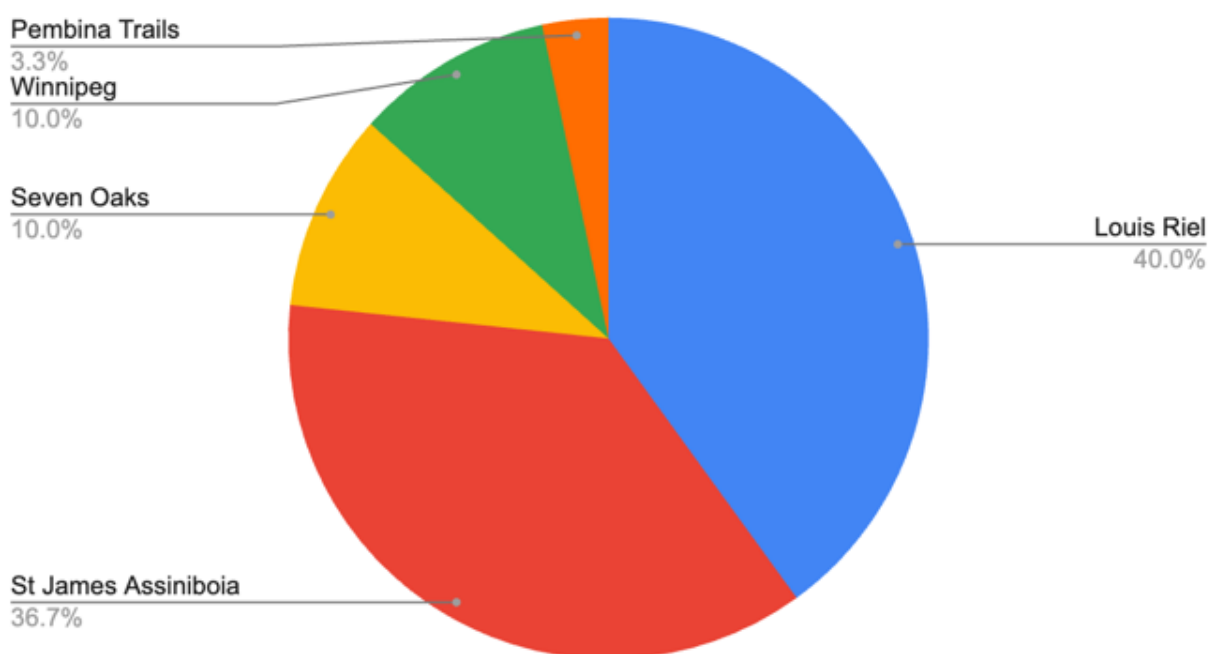
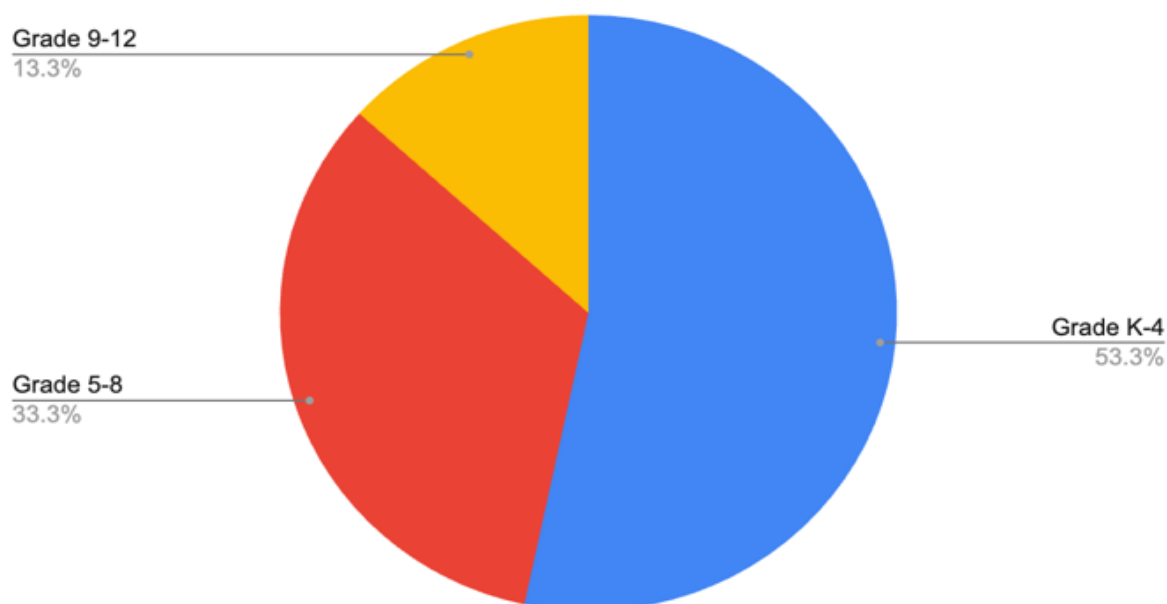


Figure 4.2

Question 2: What grade(s) do you currently teach? (n=30)

**Figure 4.3**

Question 3: Select the teachable subjects that you most closely identify with. (n=30)

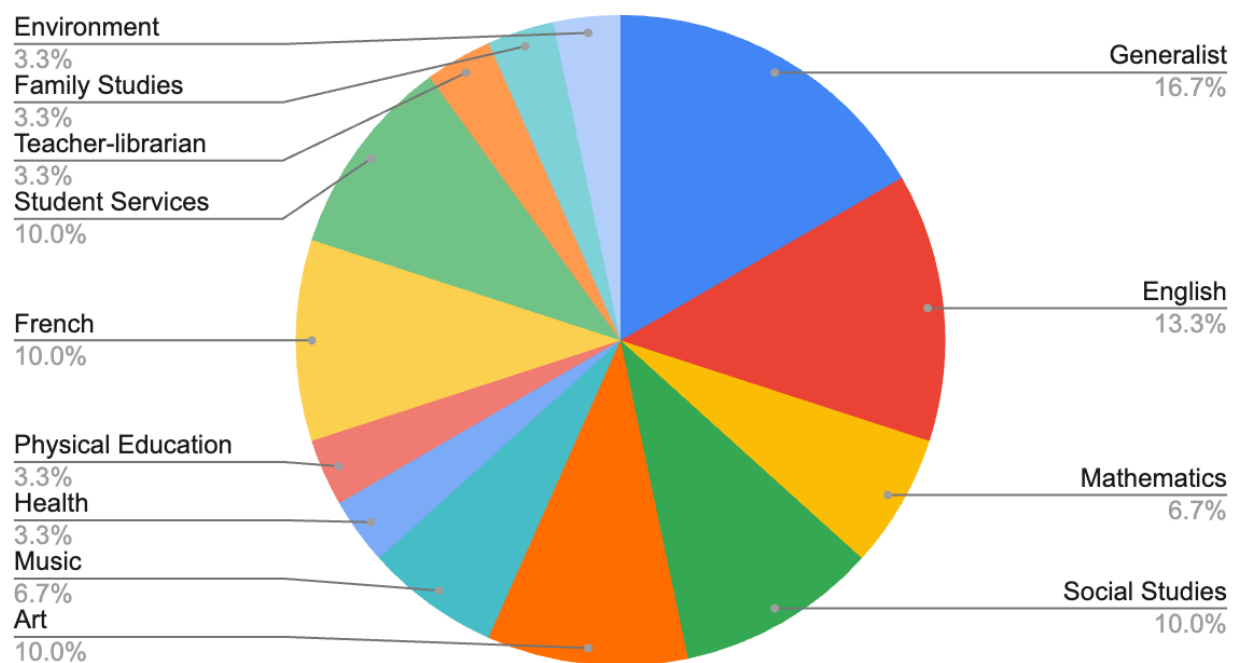
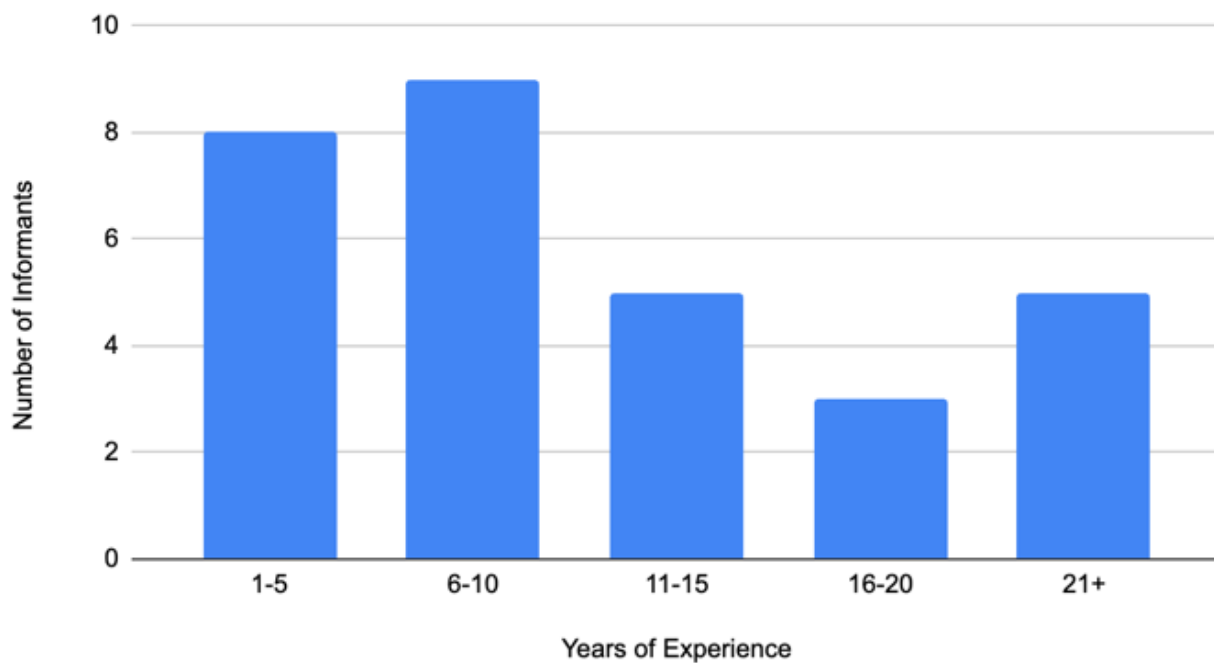
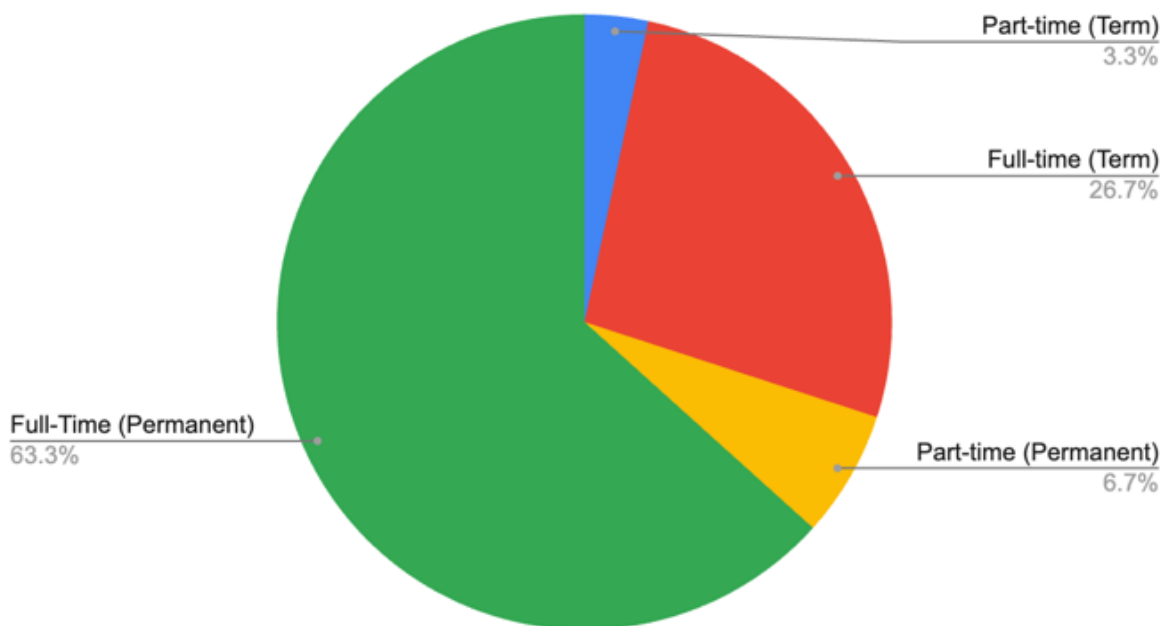


Figure 4.4

Question 4: How many years of full-time classroom experience do you have? (n=30)

**Figure 4.5**

Question 5: Identify your current employment status with the school division. (n=30)



Represented in this data was an array of different ways in which place was conceived of as part of teaching and learning and operationalized through their teaching practice. Responding to Question 16 (*Can you identify any barriers (time, money, curriculum, support, interest, school location, etc.) to including people, places or community issues in your lesson planning?*) informants were overcoming familiar barriers to bring ‘place’ into what and how they taught, such as a siloed curriculum, scheduling, and finances to find ways of exploring community with connections to the curriculum, and in doing so expanding the opportunities for young people to connect with people and places outside of the classroom. This first section of findings reveals that there is not just one type of K-12 PBE teacher.

There was no singular focus for informants entering the profession (*Question 6: I entered the teaching profession because...*). Responses ranged from the honest (“I did not succeed in gaining admission in a different faculty”), to the pragmatic (“After working in daycare, I wanted to pursue education” and “Work stability and regular schedules”), to action-oriented (“I wanted to make a difference”). 53% of informants stated that it was a career that interested them, that they had an aligned skillset or that it was a stable career; 20% referenced their love or care for children; 17% made explicit reference of their desire to contribute to society; and the remaining 10% chose not to respond.

A thread of social justice-orientation ran through most informant responses to the role of education (*Question 7: In my view, the purpose of education is...*). These orientations could be configured into three groups:

- a) Education for individual growth (53% of responses)
- b) Education for societal improvement (43% responses)
- c) Education for individual growth for societal improvement (3% responses)

The majority of the 30 informants referenced the need to focus teaching and learning solely on individual growth (53% of responses). For example, many informants framed their work as “helping”, “guiding”, or “cultivating” student “growth”, “talents”, “skills” or “success”. ‘Knowledge transfer’ was identified in different ways as the purpose of education, but there was little reference to direct transfer of knowledge through ‘teaching’.

An additional 43% of responses drew links between individual growth and improving society. These informants stated that the purposes of education were to, “help students become active citizens”, “become better people in a diverse and accepting society, realizing potential and to contribute to society”, and “support them to become active social citizens in their chosen paths and society”. Only one informant did not consider the individual, stating that “improving civilization” was the sole purpose of education. Most informants (83%) viewed themselves as conduits between knowledge and students and considered experiences with and in the community as a tool for meeting this aim. There was no evident relationship between informants’ rationale for entering the profession and their view of what the purposes of education were.

Cultural Appreciation over Critical Investigation

To understand the extent to which critical pedagogy guided the work of informants, there were several questions intentionally designed to solicit insight into the role of social justice in what and how teachers designed and facilitated lessons. Questions included those asking informants to describe a typical unit plan in their classroom (Question 8), guiding theories or frameworks (Question 9), ways in which people (Question 10) and places (Question 11) were brought into unit plans, and the role culture, the economy, environment, history, or politics had in content focus (Question 15). All questions were optional for informants to respond to.

But despite the social-justice orientation guiding many informants' decision to both enter the profession and/or purposes of education (43%), just one informant provided an example of teaching and learning which aligned with critical pedagogy as linked to place (Question 10, 11, 14 and 15). In response to Question 9, (*Are there any theories of education or teaching practices that guide your planning and instruction?*), there was no mention of critical pedagogy from informants. This question also elicited the least responses from informants of all the questions, with those who did respond, the responses lacking specificity. A sample of responses to this question included, "just good teaching", another sharing, "Many" without elaboration, a third stating, "Motivate children and make them more interested in learning" and finally, "I plan and instruct where the kids are at". One informant referenced equity and social justice as a theory or framework of teaching. For most informants, the use of place in teaching and learning remained surface level, with no examples of place being problematized or as a site of deep investigation. No informants included any details that could be considered community action projects, where students applied their learning to enact change.

The single example of critical pedagogy came from a high school Outdoor Education Learning Support Teacher highlighting a unit that they had co-taught for grade 9 and 10 students focused on a community just north of Winnipeg. This town, divided by the Red River, features a provincial park and dam and is known as an excellent location for fishing. Archaeological digs on the riverbank have uncovered Indigenous civilization dating back thousands of years. This informant detailed visits to the place to engage in fishing as a context for understanding natural resource development and links to Indigenous cultures. But the informant also spoke to how the place and its history offer a real-world context for understanding the impact of pollution (the town is downstream from Winnipeg, which has in recent years regularly dumped city sewage into the Red River, which is a tributary to Lake Winnipeg), and the ways that recreation, the economy and culture have been impacted by humans. As the informant stated,

Lake Winnipeg is dying. So many layers of how these impacts – commercial fisheries, recreation, economies, Indigenous communities' access to food and drinking water, politics of a watershed that spans provincial, treaty and international borders... [through PBE] we can access to understand where this is happening and have a greater connection with the issues and inspire solutions.

This example offered a strong example of CPBE, where place was used to surface connections to curriculum and offer students context-based experiences to make links between places through interdisciplinary lenses.

Given the thin detail and lack of reference to critical pedagogy, it should not be surprising that these educators did not ground their teaching in critical perspectives of place. Of the thirty responses to Question 15 (*Please explain, if at all, what role issues of culture, economy, environment, history, or politics of the neighborhood or community have in your teaching?*), only two referenced history or the economy. Given that PBE is often facilitated by being outdoors, and that greenspaces were frequently noted as sites of place-visits, it was surprising to see only four references to the environment as a topic for PBE. As PBE is often used as a pedagogical approach for environmental education, science education or outdoor education (Yemini, et al., 2023), this small sample suggests metro-Winnipeg teachers diverging from broader trends in this aspect of PBE.

Possibly a more accessible entry point for PBE appeared to be taking a ‘liberal PBE’ (Seawright, 2014) approach and focusing on ‘culture’. An important finding from this study is that informants were predominately utilizing people and places in the community to *reinforce* aspects of community taught in the classroom, specifically ones focused on culture. One informant (responding to *Question 15: Please explain, if at all, what role issues of culture, economy, environment, history, or politics of the neighborhood or community have in your teaching?*) was representative of many others in the survey, detailing how community was used to deepen students’ understanding of culture. Their response is worth quoting at length:

The local culture serves as a means to help students understand their own identity. By exploring the unique cultural traditions, languages, arts, and festivals of the community, students can better connect with their roots. For example, teaching about the traditional handicrafts or folk dances that are prevalent in the neighborhood can give students a sense of pride in their local heritage. At the same time, it exposes them to the diversity within the community. They learn to appreciate different cultural backgrounds and the values that different groups bring, which is essential for promoting cultural inclusivity and mutual respect... Understanding the community's culture also improves students' cultural literacy. This knowledge equips them to communicate more effectively with community members and different cultural groups. For instance, if students know the significance of certain cultural symbols or rituals, they can engage in more meaningful conversations and avoid misunderstandings. In language and literature classes, the local culture can provide rich sources of stories, idioms, and dialects that can enhance students' language skills and creative writing abilities.

This was complemented by other informants’ responses to Questions 10-17 (‘Place-based Education’ questions) in the survey who considered that learning about culture in context, fostered “tolerance... and respect” and “by integrating community culture into teaching, students can gain a deeper understanding of the connotations and values of the local culture”. Most informants were using place as a way to present cultural appreciation or cultural contributions of

ethnic groups in their teaching without critical analysis or adjusting curriculum or pedagogy (Banks, 1993).

Aside from the previous examples, there were no further references to the places offering insight into Indigenous histories and settler-colonialism. Three responses were linked to Indigenous culture, including one response that viewed culture as part of reconciliation through outdoor exploration, which stated:

I think we have a responsibility to elevate voices and perspectives that were historically marginalized and I try my best to teach Indigenous wisdom using books and the lessons I've been taught from members of the divisional support team. Recently I am trying to incorporate Anishinaabemowin words for the elements of nature that we encounter. Bringing students outside, into the natural areas of their community, is also how I try my best to foster a love of nature in the next generation. If children grow up scared of the natural world and not marveled by it, then the climate emergency is in an even darker place than imagined.

Given the established scholarship that has emerged on the convergences and divergences between PBE and land-based education (Greenwood, 2019; Scully, 2020; Tuck, McCoy & McKenzie, 2014; Twance & Burton, in press), and that other scholars located in countries with a common history to Canada of settler-colonialism such as Australia and New Zealand have focused their work on the power of PBE for addressing this (Wooltorton et al., 2020), there was a notable absence of any informants referencing land-based education or settler-colonialism from informants in Questions 10-14 ('Place-based Education' section of the survey). For example, Wooltorton and colleagues (2020) identified PBE as a valuable pedagogical approach for implementing Indigenous teaching methods that (re)connected all New Zealand youth to connect more closely with place.

Beyond Direct Instruction

Scholarship often invokes PBE as an intentionally disruptive practice that aims to violate the standardized teaching and assessment practices of the K-12 system (Gruenewald, 2003a, 2005; Harasmychuk, 2015; McInerney et al., 2011; Seawright, 2014; Smith, 2022; Sobel, 2012). Many informants (43%) referenced constructivist informed pedagogies as central to their teaching (*Question 8: A typical teaching unit in my classroom...and Question 9: Are there any theories of education or teaching practices that guide your planning and instruction?*). References to student-led learning, inquiry, project-based learning and experiential or hands-on learning were documented, to the extent that almost all informants referenced at least one of these pedagogies, if not multiple. There was a repeated, albeit not exclusive relationship between informants of the 'individual growth' typology and those who referenced constructivist pedagogies. This suggests that teachers' orientations of how to teach align with their views on the purposes of education, namely engaging and empowering students at an individual level in teaching content. Importantly, these practices are common to PBE (Anderson, 2017; Gruenewald

& Smith, 2010; Sobel, 2012; Vander Ark, et al., 2020; Yemini et al., 2023), offering potential for building on these practices with stronger PBE teaching and learning.

No research has been conducted on the extent to which inquiry or project-based learning is present in the Manitoba education system; however, an edited volume from Henderson (2019) does include several diverse case studies written by Manitoba teachers. What should be noted is that only one Manitoba curriculum – grade 12 Global Issues – explicitly calls for inquiry-based approaches to teaching. All other compulsory and elective Manitoba curriculum (with the possible exception of grade 9-12 English Language Arts, currently in draft stage) is organized in thematic clusters, with specific learning outcomes (SLOs) detailing what a student must independently demonstrate knowledge of. For example, a SLO in Grade 1 Social Studies reads, “Recognize that people depend on the environment for survival”, a SLO from Grade 6 Physical and Health Education reads, “Identify practices and policies that support healthy schools and communities” and another SLO from Grade 9 Social Studies, “Evaluate Canadian perspectives regarding current global issues”. What this survey has shown is that constructivist pedagogies, such as inquiry or project-based learning are reported not just in generalist classrooms, but within subject disciplines themselves, particularly in grade 9-12 where subject specialization in Manitoba schools is more prevalent. While this survey did not ask for details on constructivist pedagogy design, this data does offer a promising access point for growing PBE practice.

Indigenous pedagogies were noted by 23% of informants, with some emphasis on Indigenous knowledges, but not Indigenous ways of knowing. There are familiar practices in constructivist pedagogies and PBE practices to that of Indigenous ways of knowing. For example, Chrona’s (2022) work articulates nine First Peoples Principles of Learning, including criteria such as, ‘Supports the well-being of the self, the family, the community, the land, the spirits and the ancestors’; is ‘Holistic, reflexive, reflective, experiential, and relational’; and ‘Involves generational roles and responsibilities’ (p. 118). In 2022, Manitoba Education released a policy update on Indigenous education intended to supplement Manitoba K-12 curriculum documents with Indigenous ways of knowing. *Mamahtawisiwin: The Wonder We Are Born With*, (2022) provides potential for synthesizing PBE with land-based education. Despite passing references to Indigenous perspectives in informant responses, it was perhaps surprising to see no mention of this document. A deeper consideration of the potential for PBE in reconciliation will be outlined in Chapter 5.

An unexpected use of place was to reinforce French language, in particular Louis Riel School Division where three teachers cited community exploration as a key component of their instructional design (*Question 14: Have you designed and facilitated a lesson, lessons, or units that connect with students’ understanding of their community or neighbourhood? If so, can you share how?*). This may in part be due to explicit encouragement in the French language curriculum documents for community exploration as a pedagogical tool for French language development. One elementary teacher underscored the power of PBE, stating, “Especially in [French] immersion, it is important for the students to learn the foundational ideas and vocabulary so that they can benefit more from the people and places”. What this suggests is that

the way an SLO is written, or advising for place-based learning in support documents could be a vital tool for advancing PBE practice.

Place-based Education as Supplementary

Case studies of PBE do not advocate for a specific sequencing of place within a lesson or unit. Some examples use place as a starting point for learning (Oonk, et al., 2017; Senechal in Gruenewald & Smith, 2010; Smith & Sobel, 2010), through a series of recurring visits (Hamilton & Marckini-Polk, 2023; Stickney, 2020; Zimmerman & Weible, 2017) others as a location for a culminating action project (Anderson, 2017; Inwood, 2008), with some suggesting that PBE can be in-situ all the time (Vander Ark et al., 2020). Almost all informants in the survey used place as supplementary to classroom learning, and in many of the responses referred to situated learning as a teaching strategy to “reinforce” or “offer context” to the curriculum-related content of the classroom.

Two examples are illustrative of the ‘supplementary’ approach that informants shared for Question 14 (*Have you designed and facilitated a lesson, lessons, or units that connect with students’ understanding of their community or neighbourhood? If so, can you share how?*). A grade eight educator teaching curriculum SLOs for watersheds and riverbank erosion took their students to a creek by their school. The purpose of this visit was to, “reinforce concepts in a memorable and real-world way”. An informant working as a K-5 Learning Support Teacher (LST) worked with different elementary classrooms to support their classroom learning connections to the community. They used local parks and the community, “for the purposes of connection, mindful moments, and curriculum connections... [the] environment always plays a role as we are looking closely at what is happening around us”. Most respondents did not detail singular units but listed a few places that were visited to reinforce curriculum. Of these examples, local greenspaces were the most often cited, but also included museums, art galleries, the Manitoba legislature, a botanical garden, libraries, art centres, and a selection of local outdoor education centres.

A further interesting insight is the separation between people and places. Half of the informants had invited experts from the community into their classroom to supplement curriculum learning (*Question 10: Have you used people from the community as resources in your teaching?*). These people included bank managers, artists, scientists, musicians, Indigenous elders, politicians, and athletes, some of whom were parents of students in the school, but not always. There is important evidence here, of what Bowers (2006) considered the role of intergenerational support – that is, the calling on knowledgeable members of communities to compliment or deepen connections between curriculum and place. But none of these examples of community experts were met *in places*; all the examples of community experts visited schools, whereas all the visits to places outside of the school were either facilitated by teachers, or guides who were trained in program facilitation at organizations.

Action Research Findings: Introduction

This section builds on the findings from the survey questionnaire, with an action research study with me as outsider-researcher collaborating with three K-12 teachers in planning, action and reflection of a PBE teaching unit. A detailed account of the research methods that informed the planning and enactment of this study can be found in Chapter 3. To reiterate, in this study I (as lead researcher) recruited and collaborated with three K-12 teachers as they designed, facilitated and reflected on PBE units for their classrooms, lasting between 2 weeks and 5 months across the 2024/25 school year. Using Greenwood and Levin's (2007) Cogenerative Model for action research, the participants and I established and maintained a 'reciprocal-collaborative' (Herr & Anderson, 2012) relationship. This involved true collaboration between me and the classroom teachers in planning, with daily teaching facilitated predominately by participants, but in all cases at least two lessons led by myself. 'Arenas' (Greenwood & Levin, 2007), that is, the spaces of data collection, included conversations in person and virtually, pre- and post-study interviews which were transcribed, email correspondence, field notes or observations of teaching which were documented in a Researcher Journal (Herr & Anderson, 2012), and all collaborations concluding with member checking in summer 2025 to review and confirm emergent findings from the study.

This section begins with profiles of the teacher participants (using their pseudonyms) including their educational background, philosophy and approach to teaching and learning. The remainder of this chapter dives into details of findings from this research. These included: (1) participants arriving at an understanding of how PBE can be a powerful lens through which to organize and teach assigned curriculum; (2) that teaching through place both provided unique insight into the lives of their students and increased engagement; (3) that it further provided entry points for drawing critical pedagogy into their teaching content (specifically on Indigenous histories and reconciliation); and, (4) that while barriers were encountered, each teacher was still able to teach deeply about place. An interesting final finding (5) was how strongly the teachers advocated for the importance of action research as a support for them engaging in non-traditional pedagogies and critical content.

Research Participant Profiles

Of the three study participants, all were from diverse teaching assignments in the metro-Winnipeg region. One was a generalist teacher in an inner-city elementary school; two were in high schools, one in science and the other in social studies, one suburban, one urban. All study participants were familiar to me prior to initiating contact regarding this study, but none would be considered close colleagues. Two study participants (Rebecca and Samantha) were past students in a post-baccalaureate course I taught on 'Experiential Education', with the other a participant (Julie) in my previous M.Ed. program.

Table 4.1*Research Participant Profiles*

Name*	Teaching Assignment	School Context	Qualifications	Years of Teaching Experience	Teaching Major / Minor	Course Instruction Experience	Dates of Collaboration
Julie	Grade 10 Science	Large urban high school	B.Sc. B.Ed. PBDE M.Ed.	12	Biology / Chemistry & Psychology	Math (Grade 7-12) Science (Grade 7, 8, 10) Biology (Grade 11, 12, AP)	Two weeks (January 2025)
Rebecca	Grade 3/4 Generalist (Ukrainian Bilingual)	Small inner-city elementary school	B.A. B.Ed. PBDE (in process)	4	English & Drama (Double-major)	Arts (Grades 1-6) EAL, Generalist (Grade 4-6)	Three months (September 2024 to November 2025)
Samantha	Grade 9 Social Studies	Large suburban high school	B.A. B.Ed. Masters in Canadian & Oral History	10	History / English	ELA (Grade 9, 10) Social Studies (Grade 9, 10, 11, AP)	Five months (September 2024 to January 2025)

Note. Names of participants are pseudonyms (*).

Julie. Julie's pedagogical approach to teaching units often starts with an experiential component that is selected owing to its connection to the curriculum, from which she follows with direct instruction to unpack and explain the experience to students. In practice, this has looked like leading with a science experiment or activity that creates disequilibrium amongst students. Formative assessment is collected through a variety of methods, but specifically through reflection, while Julie designs summative assessment to which students are tasked with applying their learning to a real-world context. She emphasizes curriculum links to the Indigenous knowledges and perspectives, social justice and the United Nations Sustainable Development Goals. Interestingly, Julie referenced scholars Greg Cajete and Glen Aikenhead as inspiration for what and how she teaches, both of whom have interests in PBE. As Julie stated from the outset, she does not "hold the curriculum near and dear... It's definitely a guide". Her past experiences in a project-based learning classroom encouraged an interdisciplinary approach, but Julie has always sought to blur the lines between disciplines in the high school. The unit which was the focus for this study was an example of such an approach.

Conversations with Julie about our collaboration were framed through two contextual pieces: firstly, Julie had just transferred to a different school division in metro-Winnipeg and from a middle-years to senior years assignment; secondly, Julie was aware of the new school being more politically 'conservative' than her past school in both politics and perspectives of what constituted academic rigor. Julie was aware of administrative support for progressive approaches to teaching and learning, but also keen to settle in with her colleagues.

Julie posed several questions that she hoped would guide her reflections through this study:

- *How can I integrate Indigenous perspectives and local knowledge into my place-based education practice to make it more inclusive and relevant for all students?*
- *What strategies can I employ to ensure that my place-based education practices are equitable and accessible to students from diverse backgrounds?*
- *How can I assess the impact of place-based education on students' engagement, learning outcomes, and connection to their local environment?*
- *How can I integrate STEM and sustainability-focused topics into place-based education in a way that is both meaningful and engaging for students?*
- *How can I clearly communicate to students the value of place-based education in terms of developing real-world skills, critical thinking, and environmental stewardship, even if it doesn't always result in traditional grades?*
- *What strategies can I use to help students see the relevance and benefits of place-based learning, especially if they are focused on grades and standardized assessments?*

Themes that emerged from these questions is that Julie is seeking to ensure that her pedagogy aligned with the content she teaches, and that the content she is engaging students with is accessible and that assessment can validate or guide shifts to increase accessibility.

Originally our planning was conceived as a unit on the Birch Bark Canoe, which would fit with the 'In Motion' cluster of SLOs in the Grade 10 Science curriculum. Such a unit would

link Indigenous ways of being, with place and physics outcomes. Julie had an idea of how she wanted to sequence the Grade 10 curriculum, and owing to concerns around what could be possible in her first term, with delays securing permission from the Division to conduct research, we decided to push back and pair back our work.

What our collaboration landed on was a project that focused on environmental racism and air quality, inspired in part by Senechal's chapter in Gruenewald and Smith (2010) (and referenced earlier in this dissertation). Environmental racism is guided by the argument that race often determines where people live, and that where people live determines their quality of life (Waldron, 2018). Julie wanted to link the chemistry cluster in the Grade 10 Science curriculum with environmental racism on a global scale and then make local connections. Julie and I curated a series of lessons around population growth and carrying capacity, before introducing case studies on resource extraction and pollution that were directly tied to poorer and often racialized communities in India, Peru and China. Using the international examples, students individually selected a case study of environmental racism from Canada, creating a report for assessment at the end of the course. I facilitated a series of lessons on the ongoing tensions surrounding a Sio-Silica mine located on the traditional lands of Hollow Water First Nation, 90 minutes north of Winnipeg. Students explored a curated series of resources to understand both sides of the debate – from the mining corporation and Hollow Water First Nation – before engaging in a structured debate. After the debate students stated their personal view (the majority supported the Sio-Silica mine development), students watched two recent video news reports on the Province of Manitoba's decision to grant a license for mining to move forward. The last stage of the project was students gathering snow samples from around their homes and testing for carbon parts-per-million, overlapping the findings onto maps that identified average home incomes. They found that there was a moderate between low-average household income and high carbon parts-per-million (PPM) identified in the snow.

Rebecca. Having just transitioned from a subject-specialist role in an English-language elementary school to a Grade 3/4 Ukrainian bilingual generalist role, Rebecca was keen to learn more about the structure of inquiry and specifically how to integrate outdoor learning. In her new generalist position, Rebecca drew in many of the pedagogical dispositions from the subject-specialist role, namely, to start with a text, person of inspiration or a hands-on experience that would guide a lesson or unit. Rebecca was inspired by the work of environmental and experiential oriented writers Rachel Carson and Reggio Emilia, and this manifested clearly in her pedagogy and the content she prioritized. For example, she stated that she typically begins thinking about what to teach by looking at the 'Cluster 0' outcomes (which details skills that students should focus on such as research, data collection, or presenting learning, rather than topic knowledge) in the science and social studies curriculum documents and trying to link through interdisciplinary learning. Rebecca explained how this intent emerges and is shared with students, stating,

I like to look at everything overarching because I feel like if I tried to go in and just taught them about specific structures or things like that, they wouldn't get the most out of

them... I want my students to understand why they're going outside, why it's important to be able to have their community, and how do we research and explore those questions? In this way Rebecca prioritizes learning that she or students find interesting and relevant rather than dogmatically teaching from the curriculum. There is a blend of Rebecca's philosophy of education with strong formative assessment practices in which she remains attuned to the interests of students and frequently offers opportunities for students to explore and direct what content is addressed in class.

Rebecca's questions that guided her thinking considered student engagement, pedagogical and more practical questions that concerned weather:

- *How do students become interested in the history or community of a place?*
- *How do we bring Indigenous teachings into a bilingual program through place?*
- *How do I continue exploring place in the winter months, when getting outside is harder?*

In her pre-study interview it was clear she recognized the potential that place inquiry could offer and was keen to explore how this would work for an elementary bilingual classroom.

Rebecca had a vision of where the learning would go but was very comfortable pivoting should student interest arise and point to a shift in direction. Student curiosity was captured through a 'Wonder Box' and 'I Wonder Wall' with the former a container for students to collect items of interest from outdoors, and the latter a place for students to write out their questions and post to the classroom for the teacher and their peers to read, discuss, and explore in more detail.

Rebecca started the place-based unit with the aim of students creating a map of their local community and incorporating human and natural elements in this. Such a project would strongly connect to 'Grade 3 Science: Characteristics and Interactions of Plants with their Environment' and 'Grade 3 Social Studies: Mapping and Community Connections'. The unit unfolded through a series of book readings, followed by outdoor walks – at first open-ended, but increasingly focused and modelled off the work of Gillian Judson's (2022) walking curriculum. Through this series of lessons spread over two months, as students built up their focused stamina, gradually explored the immediate community surrounding the school, mapping their observations, and taking 'deep dives' into areas of interest to them. There were many opportunities for sensory experiences, particularly in a park adjacent to the school where frequent visits were made. For example, students would collect and analyze natural elements like leaves, seeds, mushrooms or do rubbings of tree bark. A land acknowledgement and tobacco offering were made along with a promise to care for the land. Deep dives of the community were propelled forward by students being encouraged to question and led to explorations of trees and animal habitats, and incorporated mathematical elements such as distance and spacing and art. After my time with Rebecca ended, the students created a book that documented their perspective of the community.

Samantha. Pivoting away from pursuing a career in academia towards K-12 public education, Samantha brought a passion for history and training as an oral historian to her work. Samantha's pedagogy is guided by the 4A framework provided in Manitoba curriculum documents (activate, acquire, apply and assess), some direct instruction, balanced approaches to

individual and group work, and opportunities for ongoing student reflection. She uses curriculum as a starting point but is keen to emphasize that she is “not someone married to curriculum. I think curriculum is important and has its role, but I think you can meet curricular goals without traditional outcomes and without traditional styles of teaching”. What this looked like in practice was the prioritization of the big ideas in social studies which would be explored through student inquiry, and only minor explicit connections to curriculum SLOs. Samantha is highly attuned with students’ responses to teaching and assessments, and approaches unit plans with a focus, but adjusts based on formative feedback (and at times, her own capacity to engage with the emotionally draining aspects of social studies and inquiry learning). As with Julie and Rebecca, Samantha is guided by broader societal concerns such as social justice, identity, community, democratic citizenship and deep consideration for the way in which her pedagogy and content reflect the principles of Truth and Reconciliation (2015).

From the outset, Samantha’s personal research question for this study was, *‘To what extent does oral history provide opportunities for students and community members to learn from one another and form meaningful connection?’* Samantha was also keen to gain experience using an inquiry approach to teaching through place and conclude with a student public exhibition of learning. Over five months, in two separate Grade 9 Social Studies classes, oral history was a skill developed by students before becoming a research tool for their research project. This was introduced first through a series of lessons that deepened students’ understanding of Residential Schools and the work of the Truth and Reconciliation Commission, to a unit on human rights in Canada, before students explored the local community, identifying a place which had meaning to them and interviewing members of the community who had knowledge of that place or who had mentored students in that place. Provocation questions² such as, *What words would you use to describe the x community? What are the good things about x community? What challenges does this community face? What do you want to know more about? What do you want others to know more about?*, were posted around the classroom, responded to early in the semester, and offered an anchor point for students’ inquiry. After four months cycling through three separate units, students presented an oral history podcast to their families and community members at a catered public exhibition of learning in the school commons.

Action Research Findings: Six Themes

Six themes emerged from the AR findings. Throughout the study and reiterated in member checking, participants reported strong support for the use of place to frame their teaching and for the benefit of action research methods. This section will highlight how teachers’ utilization of PBE provided greater opportunity for their personal and professional identity to overlap, increasing self-efficacy. Participants came to understand the benefit of framing and teaching curriculum through place, so to both meet curriculum outcomes and establish a student-centred approach to classroom teaching that increased engagement, inclusion and strengthened

² ‘x’ is used here to anonymize the community’s name

community. Teachers also came to see the power of place as a tool for drawing in Indigenous perspectives and histories – a particularly important attribute in their view. Familiar barriers facing teachers that break out of traditional teaching norms were present, but there were also interesting findings on the power of action research and particularly the benefit of the researcher in the role of collaborator that led to minimization of these challenges.

‘The Big Hope’: Place-based Education as a Pathway for Bringing Vision of Education to Reality

A clear conclusion from participants is that the structure and aims of PBE acted as a vehicle for bringing to life what teachers believed was important in their classrooms. Most notably, the three research participants – who all identified as settlers - strongly believed in the importance of bringing Indigenous knowledges and perspectives into the classroom. Each teacher had already been doing this work without the lens of place, but what PBE did was frame this work in a more concise way.

Samantha, a high school social studies teacher, had been integrating Indigenous histories into her teaching for many years, but through PBE she was able to effectively establish a link between lessons at the start of the year on Residential Schools and Orange Shirt Day, with Oral Histories and then student inquiries on places of meaning to them. She stated,

I really wanted to deepen their understanding of real Canadian history. That’s Indigenous experiences. That’s before Europeans arrived and the impact that had on our present-day society, that it has on our present-day society. So, building that really strong foundation of knowledge so they can understand their own role within reconciliation and also, hopefully, a desire to be part of the process. And then for them to develop a basic understanding of societal issues and systemic oppression so that they could call it out for what it is.

Indigenous history was of particular importance for Samantha, as many of the students in her classroom were newcomers to Canada, and early in the term she came to understand that they had very shallow or incomplete understanding of Canadian history, particularly the Indigenous experience. She supported students in making the link between forced migration of Indigenous peoples to make way for settlers, and how that is tied to the reserve system and inequality between the urban and Northern experience. In making these links, culminating in students exploring a place of importance to them, she reflected,

I think realizing that a lot of the programs that are offered in a walking distance from their house are not necessarily offered everywhere. If you grew up with something like a basketball program in your school and a performing arts center down the street where your arts programs perform, it's normal. And so, learning about how many reserves today don't have the funding and opportunities that exist for students who are living in the [community x] area, the fact that many of our students are coming to our school from reserves simply because an education is possible beyond grade nine at home were things that they'd never thought about before. So, I think there was an important recognition and

gratitude, and then the next step forward being a recognition that these are places and spaces that they want to protect.

The juxtaposition between resources for youth in the city and northern communities was made stark to students through the intentional sequencing of content in the unit. The argument of environmental racism scholars such as Waldron (2018) who claim that race determines where you live and where you live determines your quality of life, was personalized to students.

This was a similar conclusion for Julie, who was committed to making space for social justice and reconciliation in her teaching, even if it emerged in disciplines that would not immediately be apparent, such as science. She noticed a positive tension emerge in her classroom as the topic of environmental racism was linked to the ecology unit:

The last two units that I taught with my students were chemistry and physics, which is very structured, very typical labs. And then when I got into the ecology unit, and I took more of a social justice lens to it, I think a lot of students were taken aback. And I even mentioned to you, I think that I put a disclaimer on the project, ‘this is actually part of the curriculum’. And I’ve never had to do that before in my career, but it was I could see, and I got the vibe that a lot of students were wondering why the heck we were talking about these issues in science class... They’re so conditioned to understand science as being taught in a certain way. So, I think that there was some reluctance there. I think there was a lot of discomfort maybe talking about marginalized communities, even bringing up the term environmental racism. I think some students were taken back by that. So, yeah, there was definitely discomfort there.

It is worthwhile noting here that while Julie only considers the curriculum documents a guide, that she used them as a backstop to support the inclusion of environmental racism content in her teaching should any students, parents or teachers question its use. She identified a discomfort from students and made explicit to them that despite drawing in social justice content, that there was still a connection to the curriculum outcomes.

While Julie, Rebecca and Samantha had been including non-traditional teaching methods in their practice before this year, it was clear that participants had not considered place as a lens for aligning curriculum, experiences, assessment and their larger beliefs about the purpose of education before. Samantha stated in the study debrief, “I’d say at the heart of my philosophy is teaching for social justice and active citizenship, and place-based learning is a really effective way of engaging students.” After the conclusion of our PBE collaboration, she found,

Especially in the social sciences, it just makes so much sense for us to focus on [place] when we want students in a time when we’re really focused on reconciliation. As a newcomer myself, what’s my role within the process of reconciliation? I think the better we understand where we live, the history of where we live, the many intricacies and experiences and communities that exist within the place where we live, I hope, the more there will be a recognition of the need for reconciliation and the recognition of the importance for everyone to participate in the process. It was a big hope.

The way that PBE contextualized content and provided entry points for students to make personal connections was seen as a revelation. A stronger connection to place also emerged as a key learning for Julie, particularly through the lens of social justice:

Place is somewhere that teaches you something different... It's hard to build up any care or empathy for something, and not necessarily the context of the community that you work in or that you live in, but I think you have to have a connection with place in some capacity. So, if you don't have that, I think maybe rooting yourself somewhere... if you're not passionate, that's not going to translate in your classroom.

Ultimately, Julie concluded that PBE was a progressive pedagogical approach that could meet not just her needs, but the evolving needs of students and society, claiming “the pedagogy of place-based education, actually doing it, is very reflective of my beliefs and my practice. I think it also is reflective as well in how education has to continue to evolve to meet the needs of students and meet the needs of teachers, really.”

In Rebecca's case there was a newfound sense of excitement of what possibilities could emerge in an elementary classroom through PBE. These opportunities distinctly opposed those of her K-12 experience as a student, but more closely mirrored her life outside of school. Rebecca repeatedly referred to dull and decontextualized learning experiences from her time in a private Ukrainian elementary school as motivation for teaching in a completely different way. The following statement sums up her perspective well:

I want to make sure that every kid that I teach gets to have experiences because I think that through experiences and having those magical things outside of the way that I was taught. I hated school. I was taught so traditionally. It was like single desks, looking at the teacher, you got an answer wrong, you'd write it out 10 times at recess. It was ridiculous... [being outdoors] there's no right or wrong answer outside. You can't go outside and get an answer wrong because you're going to learn something just from stepping outside and looking at some trees or looking at some birds, and you get to explore that further because that's your own curiosity versus me telling you, drawing on the board a bird and then telling you what it is.

These teachers found that using the lens of place both narrowed the options for what they decided to teach and provided clarity to the reasons for why they would teach it. For Samantha that was linking Indigenous stories to Treaty 1, applying human rights principles, before students identified a place of meaning to them, juxtaposed to the experiences of other people in Manitoba. For Julie, this was taking broader scientific and social justice principles and using them to unpack the experiences of racialized communities – first globally, then locally. Rebecca used the local community as a way for newcomers to connect with and understand the natural and social aspects of their world. Taking these steps led teachers and students to learn more about their places and each other.

New Learning: Teachers, Students and Place

An unexpected finding for participants is how much they learned through their PBE units – not just about the community itself, but about the lives of their students. Rebecca was new to the school with all her students’ recent refugees from the war in Ukraine. Many arrived in Winnipeg with their siblings and mother, with some of their fathers enlisted in the Ukrainian army. Rebecca referred to their past experiences of schooling as traditional. Though she was bi-lingual, Rebecca considered squaring all these potential challenges – language, well-being, culture – would not be straight-forward. PBE offered multiple benefits for herself and her learners: through learning about place alongside her students, it provided her a deeper understanding of the community in which she taught, including the lives of students in the school. It also created a community of learning in her classroom that supported the students making stronger connections to where they currently lived. The physical and emotional connection her students developed with place – specifically the park adjacent to the school was clear:

I’m just looking at the community - it’s so rich in the fact that even the school itself, we constantly have families coming in and volunteering, helping. It’s just the daycares in the school; the community center is open after school for the kids. It’s so different where it’s so community-based here, whereas at the other school I was working at, it just wasn’t... For me, I’ve just learned how it’s so much deeper than even what I think that there is about place, because I feel like every time we go outside, the kids teach me something more about the place that we’re walking around in... I’ve learned how there’s so many things that I have yet to learn about the community.

Clearly for Rebecca, designing her teaching unit with place in mind provided her with ongoing opportunities to learn about the new school, community, and in some instances, the socio-economic conditions from which her students resided.

Participants reported quite significant impacts on students’ learning that was developed through place and created a sense of community. Here Rebecca reflects on the conversations that emerged through a mapping assignment:

They learned how important landmarks are. I think each of them, even when we were talking about coming from home to school, they know exact landmarks that they have passed daily, and those things stick out to them. And I think it’s so interesting because kids can connect through those landmarks. One other kid was like, ‘Oh, No Frills [grocery store] - yeah, we drive by there all the time’. And then another kid was like, ‘Oh, that convenience store on the corner. I know exactly where that is. Oh, you’re so close to me’. And the more that we’ve done community work here, I think the more that they’ve started to realize how important and how closely we all are connected.

What becomes apparent then is all these place-based projects contributing in some way to a collective reinhabitation of place, which in Rebecca’s class of displaced English as Additional Language was particularly valuable.

The gradual release of responsibility throughout the term from direct instruction to inquiry learning in Samantha’s classroom led to not just content knowledge, but expanded to

skill development too, particularly for students demonstrating the ability to do tasks that typically would not be assessed in classes. Samantha stated that students responded with respect for her as they were provided more responsibility for their learning. She said that this was an important finding for her, particularly as she recognizes the big step it is between middle (which finishes at grade 8) and high school (which starts in grade 9), and how students often struggle to make this leap. She noted that,

One of the greatest struggles for students when they move from high school to university is that they have all this independence. They have to manage their time on their own, and they have to be responsible without someone calling home or noticing if they're not in class. And I think a lot of the skills that we worked on through this project build upon those. [For example] time management, self-motivation, intrinsic motivation... Typically, these aren't skills that are developed to such an extent as they were in this project in non-inquiry, non-independent studies... a lot of parents' comments to me about the life skills that they noticed their students gain through this project, that they were really happy that their children were developing those skills.

Samantha noted that students acted like a “team” collectively strengthening each other’s work and working to ensure the project went well. Towards the end of the project, as planning for the exhibition of learning took shape, students were excited to commit time during and outside of the school day to plan and manage parts of the event. In all, Samantha considered the combination of her showing trust to students, student choice over their inquiry project, a public exhibition of learning raising the stakes of learning, and the focus of the inquiry project on a place of importance to the students was a mix conducive towards students responding well.

Julie was also new to both her school division and school. She remarked on the significant juxtaposition between her last teaching and assignment and this new one, particularly around social class and awareness of local issues. She considered that teaching through the lens of place made it, “very obvious which students had stronger viewpoints on equity than others. I think those are issues that stem far beyond what is taught in school. I think those are systemic issues from family and upbringing.” Like Rebecca, the utilization of place to understand her students’ community, how they thought about it and in relation to other communities and aid her understanding of when and how to draw in social justice content in future classes.

Student Engagement

Blending content focus on place with student-led inquiry that is so common to PBE teaching (Anderson, 2017; Vander Ark et al., 2020) led to participants reporting strong levels of student engagement. Participants consistently reported that students demonstrated in different ways an interest, excitement and commitment to what was learned and the pedagogies aligned with PBE, such as spending time outdoors and inquiry. For Samantha, this was not a surprise, sharing “In my experience, the more students can connect to their learning, the more engaged they are. And if we’re looking at places that are meaningful to our students, then it is not surprising that engagement levels rise with place-based learning projects”.

What was noticed by Rebecca and Samantha - the two participants who carried the place-based learning units through multiple months - was that this style of teaching was inherently inclusive, offering content focus that was meaningful to students, but different entry points for learning and producing evidence of learning. For example, Samantha had a small number of students registered in her class that were repeating Grade 9 Social Studies (due to failing at the first attempt) and who often skipped classes. This was in addition to two students who were on modified programming and had an Educational Assistant (EA) working with them in each of their courses. She reflected,

I think because there was so much freedom around the focus of their project, but even the students who find coming to class regularly to be a challenge or find engaging in their learning to be a challenge, they got involved in it. And not all of them created a final project to the same extent as others. But every student ended up participating, and I believe, having some meaningful learning and some pride in what they were focusing on... My students who are on modified programming were able to choose their own space that was meaningful to them through the Special Olympics program at our school and then within the province and conduct their own interviews and create their own project. And absolutely, it was a slightly different project than their peers, but no two groups created the same project. So that was just the same across the board. So that was really cool too.

What is important to note here is that Samantha's approach to PBE heavily emphasized inquiry in the second half of the term. Place was the 'hook' for increasing student interest and maintaining engagement, while the inquiry provided avenues for differentiation, such as those with cognitive needs or attendance challenges. Students who had challenges both attending and participating in class learning in previous grades or other subjects in which they were currently enrolled, were in Samantha's class participating and producing meaningful work.

Likewise, Rebecca was keen to nurture students' inquisitive perspectives, and while she remained committed to overarching aims of the place-based unit, she was responsive to student interests. Formative feedback was important to remaining attuned to student interests, with Rebecca maintaining,

If I see something, if I notice that they have attached to something, I'll run with it for as long as they want, as long as they have stamina for it. And then we shift when people bring things in, because I think for them, their buy-in is the best when one of the students starts it.

Often student interest was derived from places and objects in the community that Rebecca exposed students too. The development for understanding aspects of nature fed back into students wanting to spend more time outdoors in Rebecca's classroom, and for her, this was a highly valuable way to not just ensure that all students were able to participate, but that by learning in places there was a pathway for EAL:

The kids kept asking to go to the playground in [park x], but the kids were equally excited to climb a tree or to run around in the field part of [park x] or run around the

bushes, playing the bushes... I've noticed even that when they go outside, it's like they're just very drawn to certain things or pieces in nature, like pieces in nature. But they're also they have questions. They have certain questions now about things that happen outside. Coming from a traditional school learning experience in Ukraine, and being afforded the opportunity to explore, ask questions and seek answers about their new community meant that students were excited and motivated to be at school.

Critical Pedagogy of Place

The results from the survey questionnaire in Chapter 4 only surfaced minimal examples of critical approaches to place. However, in this study, both Julie and Samantha developed content that aligned with critical pedagogy. Julie's unit directly explored air pollution globally and linked it to socioeconomic status. This led the foundation for an in depth look at the Sio-Silica mine development outside of Winnipeg which had immediate negative effects for the local Indigenous community for the benefit of a settler corporation. For this last part of the unit, students were directly implicated in their consideration for the development project and were required to weigh in on whether they would approve or decline the environmental approval for sand excavation.

Samantha's unit included a series of lessons around Indigenous histories and contemporary experiences. Students spent extensive time learning about residential schools, Orange Shirt Day and treaties, with resources from the National Centre for Truth and Reconciliation and a residential school survivor. They were explicitly tasked with considering how they benefitted from colonization, and through a Personal Land Acknowledgement, offered a platform for making action-oriented statements as treaty citizens. Finally, students explored places in the community of meaning to them; knowing the privilege that they are afforded in being able to have access to cultural or leisure places became more impactful. Samantha considered,

These are spaces that are important to them. And recognizing that funding needs to go into all of these places in order to keep them clean and healthy and functioning are just things that they didn't think about before. And I don't think that's anyone's fault or that, it's I just think, it's normal to grow up feeling like whatever is around you is the norm. To take a moment and recognize how that's special is really important. I think for a lot of students, that was a big part of what came out of the project, too. A deeper connection to the place where they live.

Samantha and I surveyed student knowledge about Indigenous history, residential schools and the Truth and Reconciliation Commission at the start of the unit with most students showing none or superficial understanding. By the close of the unit Samantha reported that most students were able to independently demonstrate significant understanding of these terms and actionable ways they could participate in reconciliation.

While Rebecca did not intend to focus on social justice aspects of the community, it naturally occurred in a couple of instances. When visiting a park, Rebecca informed her students that should they see any hypodermic needles, that they must leave them alone and let an adult know. When a needle was found, this led Rebecca to a discussion with the class around addiction

and health. Later in the term a critical conversation emerging naturally from a typically disengaged student, led to more conversations around poverty and mental health:

Even [student] made the connection of, ‘You know what? We should do something for people that can’t afford things. I know that people can’t afford things in this area’. And I was like, ‘That’s so interesting!’ And so, we talked about it, but we’re going to bring it back eventually. That’s just so interesting how even at a young age, she knows that the area that she lives in or her mom lives in isn’t the most affluent neighborhood.

Rebecca made an insightful comment regarding the challenges of students engaging in critical perspectives of place that might alienate them from their peers. She contrasted the opportunity to be outside, welcome student questions, and explore critical understandings of place with her experiences at a private elementary school in the same neighbourhood, where one of her students from this year would be going next year, stating,

I was thinking about how I went to that same private school growing up and how I was so bubble wrapped in that community because it is a Ukrainian. You’re in the [community y], but you’re in this [school], and you’re behind this fence. And I just think that it’s such a weird irony because you’re not getting taught what’s on the other side of that fence.

And I think that’s so important.

Rebecca’s experience as an elementary student at a private school in a socio-economically disadvantaged neighbourhood which actively sought to distance what and how students learned from the community in which it was located offered a fascinating counterpoint to her work through the PBE project. On many occasions Rebecca would indicate her motivation for what and how she imagined the work she undertook as a direct response to what she did not get to experience as an elementary student herself.

An interesting question Julie posed was how socio-economically diverse classroom teachers effectively navigate social justice and critical pedagogy teaching differently than homogenous or socio-economically stratified schools? Julie shares her experience navigating this challenge:

How do you avoid those difficult discussions of socioeconomic or maybe the cleanliness or diversity?... There wasn’t a very high percentage of people living in this community that were of Indigenous backgrounds... I think that is amplified even more when we do have students that are coming in and bussed in from very affluent areas. And so, yeah, how do you build empathy with those students who don’t even live in the community?

Unlike in the United States where ‘red lining’ leads communities and subsequently schools to be populated along racialized districts (Desmond, 2016), this is less prevalent in Winnipeg (See Figure 1.1). While there are pockets of ethnicity – higher Indigenous populations in the North End, higher Filipino and Indian populations in downtown and west-central districts - many schools in the metro-Winnipeg region such as Julie’s are not only ethnically diverse, but socio-economically too. This raises important questions around critical pedagogy strategy, as some scholarship is drawn from ethnically and economically homogenous rather than heterogenous classrooms.

Ultimately, Julie landed on her critical pedagogy work in this unit being a starting point, but one that needed to be sustained across courses and grade levels:

I think I brought an awareness to it. I don't know if it was enough for students to take initiative to maybe change some of their personal lifestyles so that other communities aren't being affected... I think most of my students felt in-between, like the halfway point between knowledge and an attitude.

Julie is reflecting here on not just whether she taught critical content, but what the impact of this work was. In her words, it was “negligent” for teachers not only to ignore this content, but to profess hope and provide avenues for learners to act on their learning. She anticipates this being the focus for her work at her new school soon.

Catalysts and Constraints

All three teachers designed and facilitated lessons that align with the definitions of PBE detailed in Chapter 2. But all three did so in very different ways, particularly the extent to which they were learning in, with and for place. In short, these teachers (and I, as a result) were not dogmatic about strictly aligning with specific approaches to PBE. For example, while Rebecca scheduled regular community walks, Julie and Samantha did not organize any out of school experiences during class time. All participants navigated perceived or real barriers, fitting the focus on place to their teaching style and what was possible in their teaching context.

The constraints on what and how the PBE units were designed and facilitated can be organized into *structural* and *human* constraints. Structural constraints included siloed disciplines, money, transportation and time, with human constraints including teacher perspectives, student trust, student perspectives on learning, school leadership support and professional teaching support. The literature review on PBE in Chapter 2 and findings from the PBE survey in Chapter 4 identified structural and human barriers to operationalizing PBE, namely: time, money, administrative support, community support, school location and transportation. Findings from this study only corroborate in part these findings, however, the constraints were not uniform across all the teachers – there was not a common barrier that all three participants faced.

Structural constraints. By far, Julie and Samantha faced the most constraints, with structural constraints tied to the organization of high school. Julie's concern of what is possible given the constraints of certain disciplines (in her case, high school science), timetabling (“How deep can we really get in a 60-minute period for one semester?”), and building connections with youth within the school schedule echoes past findings of barriers in PBE. Samantha and I had discussed a variety of opportunities for place-based learning in the community, but felt that a mix of student maturity, trust and (despite having good relationships with her colleagues) negotiating student absences for a morning or afternoon was too much of a hurdle. Even if these barriers were negotiated, both Samantha and Julie believed that securing bus transportation from their administration for field experiences would not be a given.

Julie perceived more pressure to ‘cover’ the science curriculum than Samantha felt for her social studies class. In her debrief interview, Julie reflected that she would have liked to have been more courageous earlier on in the term and dedicated more time to the place-based unit, commenting,

I would start earlier... but yeah, having more of a connection with community in terms of bringing in guest speakers, or just walking together as a class within the community... maybe more of a chance to debrief... And I think having more of an opportunity to do an action project afterwards.

Early on in our collaborative planning, it was entirely understandable that Julie was more apprehensive about pushing the boundaries of what would be accepted by students, families, colleagues and school administration. But there was a sense after completing her first year, that Julie saw opportunities for where possibilities within the constraints of a large high school to do the work in a way that she saw most powerful.

Human constraints. A variety of human constraints limited the extent to which places were engaged with. Both Julie and Samantha leaned towards keeping the project within the classroom and not engaging in or with community primarily due to comfort levels with the student’s capacity to handle such responsibility. Samantha stated,

I think the biggest challenges to the project were not to do with the project at all. I think it was the maturity level of the students. Starting with grade nines in September as a challenge. It's a big leap from grade eight and middle years to high school.

This was a sentiment shared by Julie and led to her decision not to schedule community outings during class time until she gained more confidence in the school and knowledge of the student body.

Elsewhere, Julie was the only teacher to reference student grading as a barrier for PBE teaching. She shared, “My students are very much motivated by that numerical, that summative mark. And with a project like this, you can’t quantify that learning. At least I don’t think I can”. In Manitoba, teachers are expected to adhere to official Report Card Guidelines. Typically, in K-8 classrooms, each report card includes a section for each subject with students scoring between a 1 and 4, with scripted comments detailing the extent to which students have independently achieved two or three learning outcomes. At the grade 9-12 level, this is the same, but with grades scored as a percentage. If teaching takes an interdisciplinary approach, the subject learning outcomes need to be untangled and individually assessed and commented on. Challenges with effective assessment in inquiry learning at the senior years level has been a topic for research (Barron & Darling-Hammond, 2010; Friesen & Scott, 2013; Grangeat, Harrison & Dolin, 2023). Grades or assessment was not a concern shared by Rebecca or Samantha.

What all three teachers identified when asked about the presence and extent to which critical learning was evident in their units was the need to act. Barriers to leaving the school partially limited the extent to which the participants were able to structure an action component into their unit planning; remaining in the classroom not only curtailed contextualized experiences

in the community, but it also meant that there were no specific places where students could problematize place and design a response.

School leadership and teaching support (specifically, learning support teachers), was not identified as a barrier by any of the teachers, but was noted by all three teachers as critical for both their confidence in moving forward with the place-based units at the time and the extent to which they would be open to continuing in future years. Both Julie and Samantha noted the importance of having the backing of school principals for their work. Julie was aware that she was hired for the position by the principal who wanted her to “shake things up” and challenge the norms of science education. She felt administrative support was crucial for PBE as,

Its resources lie in administrative support and then the funding to actually get students out in the community. And one can argue that that doesn't take a lot of funding if you're just walking around. But I think for students who are very familiar with their community because they haven't had the means to go beyond it, I think it might be a little bit harder to sell place-based education them because it's not trivial to them anymore.

The explicit support of her administrator (who also hired Julie for her current position) provided her the confidence to teach differently and incorporate place into the science classroom. This sentiment was echoed by Samantha, who understood she had permission to design learning experiences and explore unconventional pedagogical practices, such as the Exhibition of Learning which closed the PBE unit and the semester. She enthused that the principal's team,

Was super on board right from the beginning, so that was neat. As soon as I mentioned [the place-based education project], they said, “That sounds great. Let's do it. Book a date. We'll provide the food.” They spoke at the event. I felt very supported.

Throughout the project, one of the vice-principal's (who was Indigenous) visited and spoke in Samantha's class on reconciliation. Another non-Indigenous vice-principal acted as an interviewee for a student inquiry project. At the Exhibition of Learning, the principal and vice-principal more than just spoke, they met with students and families, engaged with their work, and publicly acknowledged Samantha's work to the audience made up of students, families and community members, and presented Samantha with flowers.

Learning Support Teachers. In Manitoba, a Learning Support Teacher (LST) is usually a former classroom teacher who has demonstrated proficiency in their practice and is appointed to a position working under the administration, but usually with multiple teachers to support their work. Sometimes they have earned an additional diploma (PBDE) in Inclusive Education but not always. Typically, a school will have one or more LST who work with teachers in planning for teaching, co-teaching, and working to support student inclusion for those with additional needs, and act as a liaison between families and the school. At times, they act as mentors to early-career teachers, or those who are struggling in the profession. LST could be utilized as an additional adult for field experiences, or co-teaching, however, that is not always possible.

The role of LST through this project was considerably different between Rebecca's elementary school and Julie and Samantha's high schools. Julie suggested that she did not feel there was any way a LST from her school could work with her on any initiatives; she was

vaguely aware that there was an LST in her building but could not define their role. Having over a decade of experience at her high school, Samantha was cognizant of the wider challenges for LST. When I posed the question of whether LST could support her work in classroom-based PBE teaching or working with students in the community, she responded,

I can say on the record that our learning support is so overworked. My understanding is that's the case in most schools right now... [Asking an LST for time and support] would never, ever have crossed my mind as a possibility. They don't have it. That would feel incredibly rude of me, presumptuous and it's just not even... There's absolutely no way. They have no time for anything like that.

That meant that for Julie and Samantha, any form of collaboration outside of an outsider/insider action research project would need to be between other classroom teachers, which owing to timetabling or philosophical differences, would be a challenge in their schools.

The reality for Rebecca was different. Her school had hired a LST for Outdoor Education (OE LST). This individual was an experienced teacher who had additional interest and training in supporting outdoor learning. The OE LST spent time working with other teachers in the school on outdoor learning experiences, which then fed into a school culture of outdoor learning. While Rebecca's OE LST was not directly involved in our project, the two of them had conversations throughout the year about the project, which would then feed into my discussions with Rebecca.

Owing to the OE LST position, Rebecca expressed that she felt two layers of administrative support for her PBE units, with the OE LST working with Rebecca to convey the project ideas to the principal and offer support; they were someone who, "had a voice with admin. So sometimes they'll say 'yes' to that or 'they won't say yes to that', or 'I'll go talk to him because I will explain this side of it'". Rebecca was looking forward to the opportunity now to continue to facilitate place-based units with her LST as mentor and collaborator in the following year. However, in a debrief the summer following our project, Rebecca lamented that the OE LST position had been eliminated, which led her to contemplate how it would be harder to get outside next year without either my support or that of the OE LST. The role of a specialized support person or having total confidence in administration to support non-traditional pedagogies was (at that point) crucial for Rebecca to feel confident enough to pursue PBE in an elementary setting.

Courage. Courage was an important characteristic identified by Harasymchuk (2015) in his study on the teachers who were most successful in implementing PBE. He found that when structural barriers such as time, scheduling and money existed, teachers had to decide whether to challenge these structures, or work within them. With advocacy from the schools OE LST, Rebecca was able to challenge the norms of classroom-based learning and take her student on frequent walks outside, but consent was implied here, as the school had hired an OE LST for this purpose. Both Rebecca and Samantha demonstrated courage in different ways, but within the confines of the structure of the school. Julie knew she was taking a risk by bringing in social justice aspects to her science class, while Samantha too took on a risk to organize and host an

Exhibition of Learning where all her students would showcase their learning to the community. Neither Julie or Samantha (for different reasons) challenged structural norms by organizing field experiences, co-teaching with colleagues, or ignoring curriculum, for example. Both, however, felt that they had the social capital to take these requests to school administration if it was crucial for the work. As Harasymchuk (2015) astutely notes, courage needs to be complemented by trust for teachers to make successful challenges to human and structural barriers.

Supporting high quality and meaningful teaching and learning – for which all participants and I believed this work represented – remains an ongoing challenge in the Manitoba education system. This theme will be discussed in more detail in Chapter 5. Coupled with school-based support, the importance of the researcher as collaborator through the action research method was heavily emphasized by all three participants. To this we now turn.

The Impact of Action Research

While all three participants expressed appreciation for the PBE model, a notable finding from this study were the equally strong sentiments expressed towards the work that myself as researcher provided through the action research (AR) model offered. As detailed in Chapter 4, I implemented Greenwood and Levin's (2007) notion of 'arenas' for meeting with, debriefing and planning for next steps with participants. Of note, a first debrief interview at the end of collaborative units and second member checking debrief at 8-10 months later, highlighted the immediate and long-term impacts of AR on the participants.

I was heavily involved in the pre-teaching planning with all three participants: at the close of the project, all three reported positive feedback for this. I individually planned and facilitated the teaching (action) for two classes in Julie's course and was involved in direct instruction and co-teaching significantly in the middle and second half of Samantha's course. While Samantha had collaborated with other teachers in her building, worked with student teachers and had invited guest speakers into her classroom many times before, collaborating on planning and teaching with an experienced individual outside of the school was a new experience for Samantha, and one she found very beneficial:

It was a real privilege for me to be able to work with you because I love co-teaching. I think it's good for both the teacher and the students because the students have more than one voice in the room. Every teacher brings a slightly different perspective and different knowledge and different expertise. So, it just heightens the level of learning that can happen, I would argue. The fact that we were chatting every week, basically, about the project, it always brings it to the forefront of your mind and you're wanting to work on it. In this statement Samantha encapsulates the energy that can manifest for teachers, collaborators and that students can both feed off this energy and increase their interest in the content. This is heightened, as Julie and Samantha both stated, when the outside collaborator shares the same values in teaching.

In some instances, 'presence' throughout a unit would be a more accurate word to describe what the participants appreciated from AR. For example, Julie spoke of feeling vulnerable

working in a new school and drawing in environmental racism content. In addition to the curriculum documents providing support, she also noted the value of co-teaching this content to provide validation. She commented,

It was really nice to have somebody else advocating for the content and for the project itself and just being able to bounce ideas of somebody who has the same values as I do... it can be, I think it can be very lonely for teachers who want to break out of a norm, but they have nobody to talk to or bounce ideas off. So, I think that was really important to have somebody there as a confidante or an ally.

There is a clear feeling of the benefits of solidarity articulated by Julie for teaching critical content. Co-planning and co-teaching meant that Julie and I were able to bring both our experiences together, consider potential challenges that this content and pedagogy might present, and should any issues arise, work together towards a solution. While there were no challenges made against what and how Julie was teaching, we could offer support and advocate for each other if necessary.

For Julie the additional support was accentuated by her being in a new school; this was a sentiment echoed by Rebecca who also felt the pressure to adjust from subject specialist to generalist and therefore a new curriculum. Although I was involved to the least degree with Rebecca's classroom out of all three participants (our relationship was highly collaborative in the planning stage, but I only taught one class, and found our partnership to be the most challenging to secure time for debrief reflections), she still spoke positively on the value of our AR project:

I really appreciated your help because, well, for me, it was like coming into a new position, but then also I feel like I had such big ideas, and you helped me narrow them down. You also helped me keep on track. I think I would say you were my accountability partner. Because I would look at my calendar and be like, okay, I need to make sure that I stay on track. Otherwise, I get so distracted by the ten different concerts or whatever that's happening. I just needed something.

My presence in Rebecca's classroom not only provided pedagogical dialogue in planning and reflection but practically provided another adult body for support in getting students outside. Rebecca noticed changes in student behavior when they saw me in the classroom at the start of the day, sharing that not only did they get "very comfortable very quickly with you", but that it also alerted them to the content and pedagogy which they would be engaging with that day. Rebecca noted that, "it just brought [students] back to what we were doing. And I think it was cool because they also got to see how you reacted when going outside and how, okay, this adult is here, so that means we're going to go outside. It was cool".

I wanted all my collaborators to engage meaningfully in PBE projects but felt a sense of unease when participants expressed a compulsion to stick with agreed plans and timelines. It would be inaccurate to say that project plans did not change and respond to teacher and student needs; all three teachers put forward suggestions for not insignificant changes to the original project plans. For example, Samantha decided not to move forward on place-based visits to the Canadian Museum for Human Rights and a former residential school; Rebecca decided to nix a

tentative plan to visit a Ukrainian senior home for interviews; and, Julie pushed back our collaboration from the start to the end of semester one and shortened the period of collaboration.

I concluded these projects with a feeling – supported by feedback from participants – that our collaboration through AR meant that they could be the best version of their teacher selves. Samantha summed this up by stating,

Because we had meetings where I had a chance not only to hear advice and experiences from someone who had done many exhibitions and who was very familiar with inquiry and place-based learning, which turned into the focus of my project, it was also a chance for me to just talk out my own thoughts and process and figure out where I wanted to go with things.

Comments like this underscore the power of AR for identifying challenges in teacher practice, working collectively to plan actions to resolve these challenges and reflecting on this process and beginning the cycle again.

All three participants in this study were passionate, intelligent, creative professionals who cared deeply about their community and were motivated to provide high quality learning experiences for their students which not only enlightened them but moved them towards living well in their communities and with each other. They are teachers' that schools need and which students deserve.

Chapter Summary

Several complimentary themes between the survey and AR emerged. (1) the view held by teachers that PBE can be used as a tool for bringing their vision of what content should be the focus of classroom instruction; (2) which pedagogies facilitate a type of learning that increases student understanding of their community; (3) that this teacher vision of content and pedagogies increased student engagement; (4) there are opportunities for leveraging PBE to strengthen additional language learning. What the findings of this study suggests is that there is interest in strengthening the connections between classroom teaching and people and places in the community, and practical alignment with the modes of teaching PBE through inquiry and experiential methods.

The survey questionnaire documented teacher approaches to PBE across grade and subject areas often used place as supplementary with cultural appreciation over critical analysis the focus of teaching. In the AR study, teachers went beyond this and in meaningful ways integrated place-based understandings that often-included critical perspectives of place. All three of the AR participants provided concrete examples of how PBE can be a powerful tool for teaching on and for reconciliation. They concluded the projects with newly discovered understandings of themselves, their students and the community in which they taught.

Systems barriers such as finances and a siloed curriculum were identified by survey informants and AR participants, but this study echoes the findings of Harasymchuk (2015) that found teacher capacity as a more significant barrier to enacting PBE. In the absence of outsider-researcher collaboration through AR, promising examples of PBE offered by informants were

when classroom teachers collaborated with a Learning Support Teacher, or community-based programs funded and operated the public school system.

Chapter 5: Discussion

This chapter will discuss the findings from the survey questionnaire and action research (AR). The survey questionnaire was designed to understand the extent of PBE in metro-Winnipeg and the ways in which place is used in teacher's instructional design and facilitation of curriculum. The AR study offered an opportunity to explore in finer detail the benefits of K-12 teachers utilizing PBE in their practice, through the 'reciprocal-outsider' method of action research (Greenwood & Levin, 2007).

There are six sections for this chapter: (1) a recap of the study findings organized by each of the research questions; (2) an argument for PBE based on data from Statistics Canada on youth mobility/immobility; (3) four key challenges facing the Canadian and specifically the Manitoba K-12 public education system and how PBE can offer a response; (4) recommendations on how to expand the scope and quality of PBE in the Manitoba K-12 system; (5) study limitations and the ways in which the research met validity criteria; (6) further research that the study findings gesture towards.

Any proposal for or against content and pedagogy for the K-12 public education system needs to be couched in the realities of that system if those strategies are expected to find any measure of interest and implementation. If academics in the field of education wish for research to be read, understood and adopted into the K-12 system, it needs to both acknowledge the realities facing schools, teachers, students and the communities in which they live and operate. Indeed, these arguments are at the heart of PBE theory, that is, what we teach and how we teach in K-12 schools needs to more intentionally connect to the lives of youth and the places in which they inhabit.

As such, the second section in this chapter which contextualizes the study findings does not follow a typical dissertation Discussion chapter where the empirical data drives the structure. Instead, this chapter offers an overview of four current issues that the Manitoba K12 education system - particularly in Winnipeg - is currently experiencing: (1) student attendance, (2) student engagement, (3) accountability (to what and to whom), and (4) teacher recruitment and retention. Each of these four challenges will be defined with research used to support the claim that these challenges are an inescapable part of current K-12 landscape, before findings from this study and complementary PBE studies are used to advance the argument of PBE to respond or mitigate these challenges.

If, as I hope, the reader is convinced that there is some merit for PBE responding to contemporary K-12 challenges in Manitoba, then what is the pathway for scaling PBE? The third section of this chapter, offers recommendations for supporting PBE, namely: (1) supporting professional development on inquiry learning; (2) encouraging an approach to teaching which values place as a focus for content and a context from which to teach; (3) understanding how to navigate barriers within the K-12 education system; and (4) examples of community-based and nonformal organizations that can support PBE within the K-12 system. This section will

conclude with advocating PBE as a valuable tool for supporting teaching for reconciliation as part of the 94 Calls to Action from the Truth and Reconciliation Commission.

Study Findings Summary

Before going further, this chapter will begin by reiterating the guiding questions for the dissertation, with a summary of the study conclusions:

1. *To what extent is place-based education evident in K-12 teacher practice in the metro-Winnipeg region?*
 - The survey indicated that PBE is used by teachers across the K-12 system and across subject disciplines. Use of PBE is inconsistent and not guided by any dominant theory or strong understanding and utilization of PBE. Further research is needed to provide a fuller account of the extent of PBE in the metro-Winnipeg K-12 system.
2. *How and why is place-based education used in K-12 teacher practice in the metro-Winnipeg region?*
 - The survey showed that PBE is predominately used to supplement classroom content.
 - This classroom content is typically classroom-based and focused on cultural appreciation. 23% of survey informants identified Indigenous pedagogies connecting to PBE (a relatively low number), which presents an opportunity for developing this focus for PBE. Interesting examples of place used to support French-language instruction were evident in some survey responses.
 - There is limited evidence of teachers using place as a starting point or a focus for curriculum content. Examples of this were two AR participants (Rebecca and Samantha) as well as a single survey informant. The AR participants showed that PBE can effectively be used as an approach to teaching and learning that meaningfully addresses Indigenous history and knowledge and environmental issues in the local community.
 - All three AR participants expressed strong connection to PBE, as it offered an approach to teaching and learning which brought their vision of what content matters and how they want to facilitate it into reality.
3. *How do K-12 teachers design and facilitate place-based education?*
 - K-12 teachers who do operationalize place in their teaching often do so as part of inquiry or project-based learning. Teachers may start an inquiry or project-based learning unit with direct instruction, before a gradual release of responsibility to students. Students in the latter part of an inquiry get choice in the focus for their learning and are supported in gathering primary evidence from people, organizations or places to develop their project. Place can be used as a focus for connecting curriculum content or as inspiration for student inquiry.

- People, organizations and places were inconsistently used in the survey and AR findings. PBE can be designed for learning in places, but this is not a requirement.
4. *What content do K-12 teachers focus on in their place-based education practice?*
 - The survey showed that K-12 teachers often use place to supplement learning on culture in the community.
 - One survey informant and one AR participant showed how PBE can be used to explore environmental issues. But there was a lack of focus on environmental or climate change education. Based on the broader findings of research on the extent of climate change education in Manitoba, this should not come as a surprise. Avenues for PBE to meaningfully connect climate change to local learning will be briefly discussed later in this chapter.
 - To varying degrees, all three AR participants utilized Indigenous aligned pedagogies (Chrona, 2022) and Indigenous content. Julie centred the concerns of Indigenous land defenders against a natural resource extraction company; Rebecca infused pre-colonial history and Indigenous knowledge and cultural practices into her teaching; and Samantha grounded her unit in treaty education, land acknowledgements and the socio-economic disparities between southern urban communities and northern Indigenous communities. This content and ways of teaching were central to the current identity of these K-12 teachers.
 5. *To what extent is critical place-based education present in K-12 teacher practice?*
 - There was nominal evidence of critical PBE in the survey, limited to one example. Two of the three AR participants provided strong examples of critical PBE. There were a variety of strong examples of critical PBE in the literature.
 6. *What are the barriers and catalysts for teachers to engage in place-based education in metro-Winnipeg?*
 - Familiar human and structural barriers to utilizing PBE including teaching time, school schedule (particularly for senior years teachers), money, access to transportation and knowledge of the community were evident in the survey and AR. Some survey informants and all AR participants found ways to navigate these challenges.
 - Strengthening PBE begins with classroom teacher confidence and competency in using inquiry or project-based methods of instruction. Other catalysts include administrative support and mentorship – either by administration, LST or through AR. Courage is needed to challenge the norms of K-12 education and (particularly in critical PBE) power structures.
 - At present there are limited courses available to pre-service teachers on inquiry or project-based methods in Winnipeg, which means in-service teachers are often learning how to design and facilitate in non-traditional methods themselves without a network of support.

- Participants in the AR study all professed that PBE provided a powerful framework for deeper understanding of their community and students and brought their vision of what matters and how it should be taught to reality.
- The literature review pointed to a number of PBE case studies that leveraged community-based, nonformal or post-secondary institutions as collaborators for PBE. These included short or sustained engagement in community through cultural and environmental projects, often including inquiry and experiential learning. Some of these case studies were embedded within classroom curriculum, others were external and supplementary.
- A key discussion point from this study was that recognizing the value that PBE can offer for settler educators to respectfully design and facilitate learning that reconciles Indigenous knowledge and ways of knowing that complement rather than co-opt land-based learning were outlined.

Contextualizing Place-based Education in the Manitoba K-12 Education System

Mobility / Immobility

PBE was conceptualized at the end of the 21st century as a model of education that would reorient the aims and practices of K-12 schools away from abstract content disseminated within the classroom, and towards the learning in, with and for the community (Theobald, 1997). There was a belief amongst early theorists and practitioners that places and the people who resided there could be the starting point for learning, scaffold and expand classroom learning, and be a site for enacting learning with and for the community. The philosophical underpinning of PBE – that is, aligning curriculum learning outcomes with opportunities to meaningfully connect with people, places and organizations within a school community was an important endeavour – resonated with many of the survey respondents from this study, and all three of the AR participants.

Throughout this dissertation, several reasons are made for using PBE. These included: philosophical (the local matters); curriculum (it frames what is taught); pedagogy (it aligns very well with experiential, inquiry, and project-based approaches); engagement (students are more interested in content that matters to their lives, and teachers can learn more about their students and the community in which they live); and, social justice (it brings local issues and challenges to the fore). In addition, there is data on the mobility of Canadians to support the argument that the geographical context of PBE can provide meaningful learning for students in the short and long term. While the question of mobility/immobility is not at present a challenge for K-12 education in Manitoba, it offers an as yet unexplored argument for PBE.

There is limited time within the school day, and teachers need to make decisions about what and how they focused their teaching time on. If PBE emphasizes focus on the cultural, economic, environmental, historical and political aspects of the local, it does so with the view that this will contextualize content, offer a location and context for learning, and be meaningful

for learners not just in the present, but into their futures living within that place. But what is the likelihood that youth in the K-12 system will remain in that place beyond grade 12?

The most robust data on the mobility of Canadians comes from Statistics Canada's analysis of undergraduate program enrollment and provincial retention. In 2021, data from Canada showed that 95% of 25–34-year-olds had a high school diploma. Of those students 46% of 18–24-year-olds were enrolled in post-secondary education (13% for college, 33% for university), with an estimated 3% participating in apprenticeship programs. From that data we can derive some understanding of youth mobility in Canada after graduation.

Statistically, most students who attend post-secondary institutions for an undergraduate program will do so in the province from which they graduated high school. Research from Brunet and colleagues for Statistics Canada (2025) show that across Canada rates of home-province post-secondary attendance between 2012 and 2021 varied from low home-province post-secondary attendance in Nova Scotia (67%) to 95% for Quebec and Ontario in 2021. In Manitoba this ranged from 92% in 2015 home-province post-secondary attendance to 90% in 2021. The students who attended a home-province post-secondary institution were also overwhelmingly likely to remain in the province to which they attended post-secondary education one year after graduation (ranging from a 99% retention rate in Quebec in 2019-2021 to a low of 79% in Nova Scotia in 2015). In all provinces and territories in the 2012-2021 period, students attending post-secondary in their home province was increasing. This 10-year period also saw more students remaining in their home province after attending post-secondary. Interestingly, students entering STEM (Science, Technology, Engineering and Mathematics) programs showed greater mobility (less likely to remain in home province) than BHASE (Business and administration, arts and humanities, social and behavioral sciences, legal professions, healthcare, education, trades, services, and natural resources and conservation) programs. Maritime provinces were mostly likely to see greatest fluctuations in home-province post-secondary attendance and retention.

Drilling down into the data for Manitoba reveals that one year after graduation, Manitoba high school graduates who convocated from a Manitoba post-secondary institution were overwhelmingly likely to have remained in Manitoba. Of the 3300 graduates from Manitoba post-secondary institutions in 2021, 3105 were in Manitoba a year later (94%), with Ontario (60 students), British Columbia (57 students) and Alberta (51 students) being the most likely alternative residences. While Covid-19 may have impacted this data, these findings were consistent with undergraduate mobility in Manitoba from 2018 (Statistics Canada, 2025a).

What of the mobility of all youth after high school? Data on this group is less clear, but Statistics Canada does provide details on inter-provincial mobility, which shows 97% of Canadian adults currently reside in the same province that they did five years prior. This data stayed consistent for the 2011-2016 and 2016-2021 periods (Statistics Canada, 2025b). Mobility is highest for the Canadian 15-24-year-old age group at 1.5% in 2021, with labour mobility decreasing with age. In Manitoba, there is slightly higher inter-provincial mobility for the 15-24-year-old age group at 4.3% in 2021.

The final data point that supports the stability of Canadians is from the rural population, with the data pulled from the 2016 and 2021 Canadian Census and published by Statistics Canada. Between this period the rural population of Canada increased by 0.4% (compared to urban population growth of 6.3%). In Manitoba, the rural population saw a marginal decline of 1.2% between 2016 and 2021, representing a decline of 26.8% to 25.3% of the total provincial population (Chastko, et al., 2022). This data points to a recent stabilization of population in rural Canada, contrasting to the era of rural decline that started in the 1960s (predominately owing to farm amalgamations and perceptions of limited opportunities) (Wichers, 2023; 2024). Profiling how communities in Manitoba are responding to the challenges of maintaining a healthy population Wichers (2024) claimed that the tide of young people between the ages of 20-24 moving to cities had slowed in recent decades. The stability of the rural population in Canada bucks the trend of other G7 nations, with Canada alongside Germany (0.1% growth) being the only nations to see growth in these parts of their territory (Chastko, et al., 2022).

While there is no clean data which can pinpoint the statistical likelihood of a student remaining in the province that they graduated high school from for the rest of their lives, drawing together different data sets makes a compelling argument for immobility in Canada. In short, students who graduate from a high school in a province are highly likely to attend a post-secondary institution for an undergraduate degree in that province and remain in that province after graduating and all Canadians irrespective of post-secondary attendance are highly unlikely to relocate to a different province over a 5-year period. As the authors of one of these studies state, “Being able to measure and track this mobility over time is essential as it sometimes depends on the education policies and economic health of the provinces and territories, which also vary over time” (Brunet, et al., 2025, para. 22).

Interestingly, scholarship and practice on PBE in the late 1990s and early 2000s was driven by the concerns over the survival of communities after widespread deindustrialization in the northeast and northwest of the United States. PBE, it was argued, could be a vehicle for young people to connect more intentionally and over a sustained period so that they may understand, and contribute to their hometown while remaining in school, with the goal of them remaining in those communities after graduation from high school. PBE was viewed as a powerful opportunity for both community revitalization and economic development.

Conversely, what the data from Statistics Canada offers is an insight into the relative immobility of Canadians. This supports the idea that learning about the places in which they reside during K-12 education will also be the places that they will likely spend the rest of their lives. There can be arguments made for PBE in K-12 schools whether there is mobility or immobility: mobility may be reduced if young people are inducted into their communities through PBE in K-12 education, and the relatively low mobility of Manitoban youth offers an argument for K-12 education supporting their knowledge, values and skills for living well in places they are unlikely to leave.

A mobility/immobility argument for PBE has been made here, but there are further claims that can be made for the utilization of PBE in the Manitoba K-12 education system. The

following sections will lay out four challenges it currently faces, before arguing how PBE might offer a meaningful intervention. These challenges include attendance, student engagement in the classroom, accountability within the education system, and ensuring that the teaching profession attracts and retains high quality professionals. While PBE is by no means being suggested as *the* solution to these challenges, the findings from this dissertation point towards the content and pedagogies inherent to PBE responding to teaching and learning in Winnipeg in the current moment.

Attendance

Student attendance has a significant impact on academic and social development in children (Kawaler, 2025; Rogers & Aglukark, 2024). Today schools and government may point to a litany of reasons that children should attend school, including the opportunities for the knowledge and skill development, to ensure literacy, food and nutrition programs, safety, social and emotional development. Such is the concern around student attendance that registering and attending school through to age 18 or graduation is now law in Manitoba. As Whitley and colleagues (2025) state, “The somewhat distant possibility of public schools as a great social equalizer, has no chance if students are not actually present” (p. 4).

School absences across Canada are generally categorized as excused or unexcused absences. Excused absences include family or religious holidays, medical appointments, field trips, and short-term illness. Unexcused absences are those not sanctioned by schools or the province and extend into absences due to student or family decisions to hold students back for mental health, prevention from bullying, transportation or housing transiency, employment, or to avoid classroom content on topics such as human rights and sexual education. In the last five years unexcused absences have ballooned across Canada (Carmen, et al., 2025). On the far end of absenteeism is ‘drop out’, where a child completely withdraws from formal schooling.

Analysis from CBC News in 2024 concluded that since the Covid-19 pandemic many school boards across Canada were seeing ongoing chronic absenteeism, defined as “the percentage of students who miss at least 10 per cent of the school year, or two full days a month” (Carmen, 2024). By collecting freely available data from school boards across Canada, the report found that every school board found absenteeism was worse than before 2020; absenteeism began at early grades and rose through the K-12 system, with spikes at the high school level. The CBC Report focused on schools with student populations over 30 000, which in Manitoba only accounted for one school division, Winnipeg School Division (Table 5.1).

Table 5.1*Chronic Absenteeism in Winnipeg School Division, 2023-24*

	Grade K-3	Grade 4-6	Grade 7-9	Grade 10-12
2018-2022	Unavailable			
Fall 2023	5.4%	6.2%	6.9%	12.9%

Note. Adapted from Carmen (2024)

School attendance has been exacerbated by the disruption of the pandemic. Dependent on grade, location and socioeconomics, there were a wide range of experiences for students who learned remotely for parts of the 2020-21 and 2021-22 school years leading to increased disparities in academic knowledge. One large scale study from Canadian education researcher Louis Volante has focused on the impacts of lock-down, closed schools and virtual learning on children in Canada. He pointed to data from PISA (Program for International Student Assessment) results from 2023 which showed that students were behind by “about 70 per cent of a school year in mathematics and 30 per cent of a school year in reading” (Sumac-Johnson, 2025).

Attendance in Manitoba is linked to ethnicity. The latest available census data (Statistics Canada, 2021) shows that Indigenous peoples make up 12.5% of the population of Winnipeg (102 275), with 26.8% of those 14 years old or younger (27 410). In 2019 an ‘Attendance Task Force’ was established by the Province of Manitoba and operated until 2022. The Directions Report (2022) that resulted from the Task Force focused on addressing Indigenous attendance, as this section of the student body was recognized as making up a significant number of absences within the school system. The report claimed,

Many Indigenous learners do not see themselves reflected in schools. There is an unknown number of Indigenous learners who do not self-identify. There have been efforts to incorporate Indigenous knowledge and understandings into curricula and pedagogy, but the efforts have not reached every classroom. Notwithstanding good intentions, teachers have an insufficient grasp of Indigenous epistemologies to adapt to new pedagogies and curricula even if such curricula were widely available (p. 17).

While there was significant attention paid to Indigenous pedagogies and content in the AR participants classroom, aside from tentative evidence of the importance teachers were placing on ‘cultural appreciation’ including Indigenous, there was a notable absence of references to Indigenous knowledge or pedagogies in the survey, which overall supports the Task Force findings.

Poor attendance parlays into low graduation rates. In Manitoba the disparity between Indigenous and non-Indigenous students is stark (See Table 5.2), and despite Indigenous graduation rates rising over the last decade, the gap to non-Indigenous students has not narrowed

significantly. While the data from Table 5.2 only goes up to 2020 (Manitoba Education had not updated the data for the last six years at the time of writing), there is no reason to believe graduation rates for Indigenous students have shifted significantly since the Covid-19 pandemic.

Table 5.2*Manitoba K-12 Education Dashboard: Manitoba's Student-Tracked High School Graduation Rate, Four-Year Graduation Rate*

Four-Year High School Graduation Rates											
Grade 9 Starting Cohort Year	September 2010	September 2011	September 2012	September 2013	September 2014	September 2015	September 2016	September 2017	September 2018	September 2019	September 2020
Four-Year Graduation Year	June 2014	June 2015	June 2016	June 2017	June 2018	June 2019	June 2020	June 2021	June 2022	June 2023	June 2024
Provincial	77.2%	77.3%	78.1%	79.0%	79.9%	81.9%	82.6%	83.0%	82.8%	82.6%	83.1%
Female	79.7%	80.3%	81.2%	81.8%	82.4%	84.9%	84.6%	85.5%	85.1%	84.1%	84.2%
Male	74.9%	74.6%	75.2%	76.4%	77.6%	78.9%	80.7%	80.6%	80.5%	81.2%	82.0%
Non-Indigenous	84.7%	85.3%	86.0%	86.8%	87.9%	89.9%	90.8%	91.3%	91.1%	91.3%	91.0%
Non-Indigenous Female	88.2%	88.6%	89.2%	89.6%	90.6%	93.2%	92.9%	94.1%	93.3%	92.9%	92.7%
Non-Indigenous Male	81.4%	82.2%	82.8%	84.1%	85.4%	86.8%	89.0%	88.8%	89.0%	89.8%	89.5%
Indigenous	47.2%	45.7%	47.4%	49.4%	48.5%	50.7%	50.9%	51.1%	50.9%	50.7%	54.5%
Indigenous Female	47.9%	48.8%	49.9%	52.7%	51.2%	53.6%	54.9%	54.1%	54.2%	52.6%	54.5%
Indigenous Male	46.6%	42.5%	45.1%	46.1%	45.9%	47.7%	46.7%	48.2%	47.8%	48.8%	54.5%

Note. (Manitoba Education & Early Childhood Learning, 2025)

The Directions Report (2022) argues that a constellation of socio-economic factors converges towards low student attendance. They include “employment, food and housing insecurity, inadequate physical and mental health services, poverty, and racism” (p. 18). For example, residence transiency is linked to socioeconomics, with Stamp et al., (2022) research on student transiency in Quebec finding that there was a relationship between students changing schools during the school year and an increased likelihood of drop out, which was accentuated at the high school level.

This is further complicated by the impacts of intergenerational trauma amongst Indigenous families and youth, in part a result of the genocide inflicted on Indigenous peoples in Canada, and which the Canadian education system had a significant role. The comments made by the superintendent of Winnipeg School Division at the end of 2025 that, “Schools do tremendous work, but they can’t do everything... And right now, public education is really trying to keep the city together” (Macintosh, 2025a) resonate with many of those who have spent time in the Manitoba K-12 system in the last few years. Any realistic response to this crisis will need an intersectional and system wide coordinated response.

There has been sustained attention to Indigenous excellence in Manitoba over the last decade. Prompted by the *Final Report of the Truth and Reconciliation* (2015) K-12 teachers have received more professional development on how to integrate Indigenous histories, including through Treaty Training, the publication of *Mamahtawisiwin* (Manitoba Education and Early Childhood Learning, 2022), an Indigenous policy framework, the emergence of Orange Shirt Day leading to National Day for Truth and Reconciliation on September 30th each year, which has been supported by focused attention in post-secondary programs in Manitoba (Siemens & Neufeld, 2022; Skelton & McMahon-Flett, 2025). While still not yet mirroring the percentage of Indigenous students enrolled in the Manitoba education system, there have been renewed efforts to train Indigenous teachers (Kuly & Burton, forthcoming; Skelton & Flett, 2025).

As the attendance reports and graduation rates can attest, there is much work to be done. Understanding and addressing absenteeism, particularly of Indigenous students, will demand a multipronged approach that includes increased Indigenous control of Indigenous student education (Berger, Epp & Moller, 2021), wholistic supports for Indigenous students and families (Rogers & Aglukark, 2024), as well as culturally relevant content and pedagogies (Whitley, 2014).

There is a dearth of research on key factors impacting Indigenous student attendance in Manitoba. However, Kawaler’s (2025) work points to unengaging or unsupportive school environments that are also responsible for the likelihood of student attendance. Indigenous students are most at risk of absenteeism but also may have the most to benefit from the adoption of critical PBE practices, which centre Indigenous history, voices and offer opportunities for students to explore local issues of importance to them. The survey findings from this dissertation study revealed a notable lack of deep and sustained engagement with Indigenous knowledges, but important evidence of teacher interest and active practicing of Indigenous aligned pedagogies such as those identified by Chrona (2022). All three of the AR participants utilized these

pedagogies and focused on Indigenous history and contemporary experiences, even if only one participant (Samantha) had students enrolled in their class who identified as Indigenous. Samantha reported a notable increase in attendance and subsequent engagement with Indigenous students, to which she attributed to the content and pedagogy of PBE.

For Samantha there was an additional benefit to the way she structured her course. Beginning the year with a strong Indigenous content focus increased the likelihood of the Indigenous students in her classroom engaging early on in the year, when attendance tended to be higher. As attendance dropped off for some of the Indigenous students in her class (but it should be noted, remained better than some of their other courses), the flexibility of inquiry meant that students who missed a class or series of classes could return to their inquiry work, be brought up to date on the course by Samantha, and continue where they left off. In a traditional classroom where each class builds on the previous, there is little flexibility, which can increase the likelihood of a student who misses a couple of classes struggling to rejoin the class on their return. Inquiry learning allows for learners to all work towards similar goals, but at their own pace, allowing for greater inclusivity and possibility of future attendance. Although Indigenous pedagogies align with inquiry learning and student voice and choice (Chrona, 2022; Manitoba Education and Early Childhood Learning, 2022), there is a need for more research on the impacts of pedagogical styles on Indigenous attendance in Manitoba.

It is beyond the limitations of this dissertation to explore the granular details of attendance that metro-Winnipeg school divisions are currently experiencing, nor propose a system wide response. What is of interest and what connects to PBE is what is within K-12 classroom teachers' hands in terms of what they teach, how they teach it, and the extent to which they establish relationships with students in their classrooms to make decisions on content and pedagogy (Chrona, 2022; Manitoba Education & Early Childhood Learning, 2022; Rogers & Aglukark, 2024). For example, the *Mamahtawisiwin* policy framework for Indigenous education (Manitoba Education & Early Childhood Learning, 2022) includes substantial front-matter that lays out the events and impacts of settler-colonialism and genocide and maps out concrete steps that school divisions, school leaders, and teachers can take to integrate Indigenous knowledge and pedagogies. Table 5.3 shares these in more detail.

Table 5.3*Mamahtawisiwin: Indigenous Policy Framework*

Strategy	Action	Links to PBE
Authentic involvement	● Promote Elder, Knowledge-Keeper, and community involvement. ● Promote parent, grandparent, and extended family (aunties and uncles) involvement.	● Connecting learning content to the community. ● Intergenerational knowledge.
Putting students at the centre	● Respect and listen to students. ● Employ a holistic approach to supporting students.	● Student choice in what is learned. ● Providing students with the opportunities to share their learning. ● Opportunities for students to connect with the community for support.
Understanding of World Views, Values, Identities, Traditions, and Contemporary Lifestyles	● Teach true history (including treaties and Indian Residential Schools). ● Incorporate cultural teachings, experiences, and Indigenous languages.	● Learn about the historical events that have impacted Indigenous peoples in Manitoba. ● Understanding their own origin story. ● Create space in learning activities to have safe discussions of difficult issues. ● Invite Elders and Knowledge Keepers to share their teachings with students. ● Incorporate oral history, storytelling, and narrative inquiry in learning activities.

Inclusive and Culturally Safe Learning Environment	• Demonstrate respect for world views, values, identities, and traditions. • Value and celebrate differences.	• Include learning activities that allow students to share things about what and how their family and community celebrate. • Identify places in the curriculum where issues of sustainability, environmental stewardship, and ethical citizenship can be incorporated. • Use examples when teaching that show how the local community is connected to, yet different from, other places in the world. • Find ways to incorporate Indigenous way of knowing into curriculum (e.g., science activities from both Euro-Western and Indigenous perspectives)
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Note. Adapted from Manitoba Education & Early Childhood Learning (2022)

In the survey questionnaire of this dissertation there were frequent references to the connection teachers were making between place and Indigenous histories and cultural appreciation. Working alongside three classroom teachers in the AR study there was a strong commitment to deepening student understanding of Indigenous history, ways of knowing and ongoing issues of injustice tied to place, in particular Samantha's sustained focus on place through the inquiry project, which was grounded in learning on Indigenous history and the Truth and Reconciliation Commission. All three teachers self-reported that this focus led to increased knowledge and attitudinal shifts amongst their students. The role of PBE in supporting teaching for reconciliation will be returned to in the second half of this chapter.

There was notable parental support in Rebecca and Samantha's classroom for their work. Rebecca, whose class was made up almost exclusively of Ukrainian refugees, shared that multiple parents expressed their support for her work on place. Parents pointed to their children being excited about what they were learning and to return to school to continue their outdoor exploration. Rebecca's focus on combining English language development with exploration of the school community led students to understand more about their community, working towards

Gruenewald's (2003a) notion of 'reinhabitation', albeit with children who were new residents to the area. Likewise, Samantha shared that parents communicated strong support for the skill development fostered through the inquiry learning section of the course, culminating in students organizing and hosting a public exhibition of their learning. Here, students were motivated to attend in order to complete the projects and showcase their work to the wider community. Both these examples could have led to increased parental support for students to attend school.

Engagement

When the world of knowledge is at the fingertips of the majority of Canadian youth through the internet, what does this mean for what and how K-12 teachers approach their work? The rapid uptake of personal devices owned by young people since the release of the iPhone in 2010, has had a remarkable impact on youth culture, with less drinking and drug use but also less risk taking, higher tolerance but also greater passivity, a raised capacity for finding support but also reduced human communication skills (Twenge, 2017). A recent report from the Mental Health Research Canada found that youth aged 16-24 logged the highest rates of screentime which correlated with increased rates of mental health symptoms such as anxiety, depression, and suicidal ideation, with even higher rates for those who used Snapchat and Tik-Tok social media (MHRC, 2025). Psychologists such as Jonathan Haidt (2024) have argued that this amount of sustained time online has fundamentally rewired the developing brains of children. Limiting screen use to less than two-hours per day has been identified as a key factor in better mental health amongst Canadian youth (Toigo, et al., 2025)

How prevalent is cellphone ownership and screen time? According to research conducted by Forum for Media in Canada, Canadian cellphone ownership in 2022 was above 95%, with rates closer to 99% of adults over 65 were excluded (Media in Canada, 2025). Although there is no recent data, in 2020 smartphone use by 15–24-year-olds was at 96% (Statistics Canada, 2024). Research from the United States points to increased device (smartphone, tablet or laptop) ownership amongst early-years and middle-years aged youth, with 59% of 11–12-year-olds, 29% of 8–10-year-olds, 12% of 6–7-year-olds and 8% of under-five owning their own device (McClain et al., 2025). A 2023 study from the Pew Centre for Research found that for 13–17-year-olds in the United States the daily website visits were 93% for YouTube, 63% for Tik Tok and 60% for Snapchat (Anderson et al., 2023). 99% of 15–24-year-old Canadian youth access the internet daily (Statistics Canada, 2024b).

This summary does not include the rapid spread of access to and use of artificial intelligence. Use of artificial intelligence in the K-12 system is limited, but research from KPMG in 2025 claimed that 73% of Canadian post-secondary students are using generative AI to complete their school work (a 14% increase from 2024), despite the majority (57%) believing themselves that it constitutes a form of cheating and almost half (48%) considering their own critical thinking skills have deteriorated as a result of using it (KPMG, 2025).

Daily saturation in screens and the online world has implications for academic development inside and outside of the classroom. Algorithms are designed to curate content

specific to the user, leading to hyper-individualized echo-chambers plagued by disinformation and misinformation, which has been linked to distrust in and disengagement from democracy (Parker, et al., 2024). How can teachers ensure students are provided with truthful information, exposure to new ideas and opportunities to develop and hone necessary skills to effectively navigate the world?

One way is through policy. Over the last three years, every Canadian province has established limitations on cellphone use in Canadian K-12 schools. Some provinces have sought to outdo each other with restrictions, with Ontario touting to have the “the most comprehensive plan in Canada to reduce distractions in classrooms and improve the health of children by standardizing and strengthening provincewide measures and mandatory learning” (Province of Ontario, 2024). Since fall 2024, cellphones in Manitoba schools are banned for K-8 students, and are restricted in high school classrooms (Province of Manitoba, 2024). Although data on the impact of cellphone bans is still emerging, anecdotally, school divisions and teachers in Manitoba have noticed improved engagement from youth (Macintosh, 2025c). This has been layered with a push from health-oriented organizations encouraging parents to ‘hold out’ on providing a cellphone to youth, sometimes known as the ‘Wait Until 8th’ movement (Unplugged Canada, 2025). The Premier of Manitoba recently announced that the government would investigate banning under-16-year-olds from holding social media accounts and accessing generative A.I. If this policy was enacted as law, it would make Manitoba the first jurisdiction in the world to ban both social media and generative A.I. for youth (Hobson, 2026). It remains unclear when or how this policy would be written, enforced, or the role of the Manitoba K-12 public education system would have.

Despite these recent developments, school divisions across Canada have been slower to respond to the use of A.I., with Holden (2025) calling the current state of AI policy in Canada, “a hodgepodge of responses, leaving many kindergarten to Grade 12 and post-secondary teachers to make decisions about A.I. use that may not be aligned with the teacher next door, institutional policies, or current research on what A.I. can and cannot do” (para. 3). A cursory Google search for guidance on effective use of A.I. in the classroom overwhelmingly leads to supportive integration rather than restriction, and increasingly academic scholarship follows this assertion albeit with greater caution and nuance (Chen & Delaney, 2025; MacDowell, et al., 2024; Weatherly, 2025).

Another pathway to addressing the permeation of A.I. in K-12 education is through intentional design of teaching and assessment. K-12 teachers can make decisions on what content they teach, how they teach that content, and the ways in which they assess to increase engagement and temper the capacity of artificial intelligence to dilute student knowledge, skills and attitudes. One way that educational research has found cultivates intrinsic motivation is through content and pedagogies which are relevant to students’ lives (Scheifele, 2009; Thomashow, 2002; Turner & Meyer, 2006). Thomashow’s (2002) assertion that engagement would increase with more meaningful curriculum connection to the lives of students through PBE and opportunities for student voice and choice was borne out in the observations of AR

participants in this study. Evidence from this dissertation also points to a desire from K-12 teachers for authentic human experiences which inform and direct learning. These teaching pathways do not advocate for a scorched earth approach to technology use but resituating the value of human and natural experiences at the centre of pedagogical design.

For example, the survey provided evidence of teachers committed to supporting students in their classes being active citizens, overcoming barriers such as time, curriculum limitations, scheduling and finances to allow for meaningful connection with the community. The AR participants communicated excitement in their engagement with students and debriefs with me, as they conveyed deeper understanding of their students and the community in which they worked in because of place inquiries. As an outsider documenting this work, there was a tangible energy to learning that cycled between students and teachers in these moments.

Intentional moderation of technology use aligns with the work of Anderson (2022) and Gavin (2025). Rather than taking the approach of the ostrich (burying heads in the sand and pretending that AI doesn't exist) or the whale (swallowing the products and process of AI without question), K-12 educators can take a middle pathway. According to Gavin (2025), Director of the Writing College at Dutchess Community College, this means fighting for what the humanities stands for and the knowledge, skills and values that are at the heart of a liberal education. She states,

If we agree that the humanities are vital to the success of the person, the community, and the world, then we cannot give up trying to teach these skills. We must press forward with an updated version of teaching critical thinking skills that reflects a ChatGPT-infused reality (p. 106).

This means understanding what A.I. does and how it does it – not to better utilize it, but how to respond to and navigate it so that we can ensure that the human experience lies central to the educational experience of youth in public education.

Anderson (2022), an Associate Professor in Educational Foundations at the University of North Iowa, calls the current euphoria around how technology and generative artificial intelligence accelerated during the Covid-19 pandemic a *technophilia*, which directly riffs off E.O. Wilson's (1984) notion of *biophilia*, "the innate tendency to focus on life and lifelike process" of the natural world (p. 1). The band-wagoning of technology in the time of social distancing was a catalyst to its penetration and continuing residency in K-12 education systems around the world. This led many school divisions and classrooms, "if only implicitly, to neutralize human activity in order to increase the efficiency and control of teaching and learning" (p. 100).

This has explicit implications for pedagogies such as PBE which explicitly seek to (re)connect youth to people and places and centre the questions that matter to youth and neighbourhood to what is learned in classrooms. When social media and algorithmic oriented medias curate streamlined content which intentionally negates nuanced and pluralistic understandings of culture that lead to tribalism and fascism (Giroux, 2021), then teachers acting as moderators and facilitators of knowledge that promotes and strengthens communities and

democracy becomes even more vital (Porter, 2024). Anderson (2022) links the need for technological moderation with broader concerns about the future of democracy, writing, school reform in the age of technophilia, however, goes beyond disentangling education from democracy and civic engagement; it seeks to also disentangle education from any human intervention at all. These can be understood as phases of the same neoliberal project; the first being the decoupling of education from the public sphere, the second being the decoupling of education from individual subjectivity.

Anderson (2022) advocates for rejecting technophilia in favour of resituating humanization at the centre of the public education project, and dialogue as the primary tool. This is dialogue in the critical pedagogue sense – one that rejects knowledge consumption and regurgitation and can place primacy on material exchanges between students and their peers, teachers, knowledge-holders, and contests bodies of information to work towards new understandings and actions.

The use of technology by educators in the AR component of this dissertation points not to a wholesale rejection of technology, but its utilization as a tool to connect with people and places. Examples of this include the use of media including articles and videos from websites including the National Film Board from Julie's class, and how Samantha deployed students connecting with community experts through email and Zoom when other mediums were not viable and the use of podcast software to authentically provide the voices of experts to audience members at the Exhibition of Learning. The only instance that I saw Rebecca use technology was a document camera to project student work for the class to see. Technology was a way to connect and increase connection with place but was used sparingly and not as a starting or end point.

It neither made sense to, nor would enhance the quality of students' work to reach for generative A.I. in these examples. In this way, PBE can be a tool for 'A.I.-proofing' learning, where teachers design learning experiences that not only mean it is difficult for students to generate artificially, but that they may not feel compelled to either. Should the Province of Manitoba move forward with a ban on artificial intelligence use in K-12 schools, the examples of PBE offered in this study show how it can be used as a meaningful way for learners to engage with curriculum content.

Accountability

This section examines different measures of accountability built into the K-12 education system, with specific emphasis on Manitoba. This includes standardized assessment examinations like PISA and provincial examination programs, control over time assigned to specific disciplines and the prioritization of some disciplines over others and the recent establishment of Teacher Competency Standards by the Province of Manitoba.

Standardized assessment. If you wanted to, you could set your watch to the triennial flood of opinion pieces from outraged commenters and academics of specific disciplines, despairing at yet another batch of PISA (Program for International Student Assessment) results showing 15-year-old Manitoba students performing below the literacy, numeracy and scientific standards of their counterparts in countries such as Japan, Singapore and South Korea. While

Manitoba routinely sits in the bottom half of Canadian provinces in its PISA scores, it contributes towards Canada sitting towards the top end of global rankings, which in 2023 placed them sixth, above Ireland, the UK, Australia, New Zealand and the United States.

The PISA schedule has come to represent the pinnacle of evaluating the success of national and (in Canada) provincial testing, with an undue influence over policy and school-based decision making. Some commentators have called for provinces to rebel against the “education establishment” and follow Ontario’s lead in expanding standardized assessments to increase accountability in the public education system (Bennett, 2025). In Manitoba, PISA sits alongside benchmark assessments throughout the K-12 system, including the grade 12 exams - which all students in their graduating year (except for those students on modified programming), must take in English language arts and mathematics - as the key metric towards which many elected officials, news reporters and consequently the public perceive the effectiveness of the public education system.

There has been pushback from those opposed to the increased attention to global standardized assessments. In 2014, dozens of academics from across the world, including Henry Giroux from McMaster University and Olivia Andreotti from the University of British Columbia (now University of Victoria) wrote an open letter to the OECD pointing to a raft of negative impacts that result from PISA testing and calling for a cease in the operation of PISA. They claimed that PISA results were having significant impacts on educational policy, despite the ongoing questions around whether the assessment tool is valid and reliable. Pointing to this disjuncture between the OECD with its emphasis on economics, and subsequent focus for PISA on literacy, numeracy and science, the co-signatories question whether firstly, this narrow use of quantitative measurement can effectively represent understanding amongst the pluralities of knowledges, skills and attitudes that communities value, and secondly the worth of PISA owing to evidence of how harmful high stakes testing has on teachers and young people. In a key passage in the open letter, the authors state,

By emphasising a narrow range of measurable aspects of education, PISA takes attention away from the less measurable or immeasurable educational objectives like physical, moral, civic and artistic development, thereby dangerously narrowing our collective imagination regarding what education is and ought to be about (The Guardian, May 4, 2014).

Few would dispute the need for literate citizens, in all its pluralities, be it mathematical, scientific, language or otherwise. What this passage identifies however is all the other valuable aspects of the K-12 experience that are marginalized to maximize attention towards PISA and its resultant scores.

PISA examinations are examples of a ‘placeless curriculum’ which by design must be decontextualized from students’ lives to be accessible to as many students as possible. While numeracy and literacy are core competencies that K-12 schools should attend to, when oriented by PISA, what these authors are claiming is that they are taught to students in ways that can be assessed in a standardized test. This can preclude knowledge, values and skills that relate to

students lived experience in a community and their capacity for application in real-world settings.

Scholarship on standardized testing in Manitoba has been limited in the last two decades but has leaned towards doubling down examination programming. For example, Zwaagstra's (2022) report for the Fraser Institute identified three national trends, which were also specific to Manitoba: (1) standardized tests today place less emphasis on subject-specific knowledge; (2) standardized tests are not given the same value as they once were; (3) standardized tests are administered less often and at fewer grade levels. Zwaagstra's rationale for increasing standardized testing in Manitoba was that it was a "fair" method of measuring student achievement, that it "helps" teachers stick to the curriculum, and that it provided information for classroom to classroom and province to province comparisons. The bigger picture, claimed Zwaagstra, was that standardized testing was "an important component of a quality education system" which would provide a platform for students to effectively, "compete against other students from around the world" (para. 7, 2022).

The release of PISA and Provincial Exam results is rarely an opportunity to celebrate literacy and numeracy levels despite the ongoing challenges that the Manitoba K-12 education system faces but are more often a tool used to criticize policy and practice and push for greater accountability and conformity to a specific band of knowledge, values and skills. For example, Brar's (2019) research identified a growing gap between student's high school mathematics grades and their preparedness for post-secondary calculus, a phenomenon they point to is growing across Canada and as with Zwaagstra (2022) with impacts on the Manitoba education system. Barr cites "miss-alignment of teaching methods, students' entering knowledge, and skills, the curricula in high school and university, and high school grade inflation" (Finnie et. al, 2010; Geiser, 2007; Salim & Al-Zarooni, 2009) as contributing towards this disconnect and includes standardized examinations for grade 12 mathematics as part of the problem.

In Manitoba, grade 12 students must sit Provincial Examinations in both English language arts and mathematics (and French, if they are in French Immersion). I saw first-hand in the Manitoba education system the subtle ways that this changed teachers' approaches to what and how they taught because of examination scheduling. In the 2025/26 school year I was asked by a Winnipeg school division to support a group of teachers from two different high schools as they piloted a 'dual-credit' grade 12 English language arts and grade 12 Global Issues course. The course was designed to integrate both subjects in two teaching blocks from September to June, providing a structure for integrating the content from both courses, while still assessing each subject independently for the Provincial Report Card. The intention was that having the courses run year-long would allow for deeper inquiry and develop the community action projects which are a requirement for the grade 12 Global Issues course. However, for these teachers it was common sense that they 'got the English Provincial Exam out of the way' in January, which would also provide students with a second attempt at re-writing in June if needed. What this meant is that students briefly started the school year with Global Issues content but pivoted to focused 'exam preparation' midway through the first semester in preparation for writing the

Provincial Exam in early January. Students would then revert to the Global Issues course in the after writing the Provincial Exam, inhibiting interdisciplinary teaching. Even when the structures of the high school schedule are liberated, they remain constrained by standardized examinations.

Embedded in the policies and practices of standardized assessment is the assumption that specific content and pedagogies are required to ‘prepare’ students for taking the examinations. In the United States research on PBE during the early years of ‘No Child Left Behind’ challenged this notion, with scholarship claiming that PBE could provide both civic engagement and academically rigorous content that met state standards (Gibbs & Howley, 2000; Smith, 2002; Sobel, 2005). In the opening pages of Gruenewald’s (2003a) *The Best of Both Worlds: A Critical Pedagogy of Place*, he directly responds to care for places being,

overshadowed by both the discourse of accountability and by the discourse of economic competitiveness to which it is linked... Articulating a critical pedagogy of place is thus a response against educational reform policies and practices that disregard places and that leave assumptions about the relationship between education and the politics of economic development unexamined” (p. 3).

Provincial exams are written for placelessness to ensure neutrality and fairness, with PISA examinations taking placelessness to a global level. In doing so, standardized examinations cannot assess the extent to which young people understand and live well in the places which they inhabit. Furthermore, they promote a competitive and individual focus for learning at the cost of collective and collaborative approaches, which again is a key tenet of PBE scholarship (Anderson, 2017; Vander Ark, et al., 2020). Critical PBE calls this out and provides a response: that CPBE is accountable to the communities in which learners reside, not a test result.

This sentiment was at the core of the AR participants and evident in the survey informants. One survey informant stated,

Education should not be limited to books and classrooms but should extend to all aspects of life. Integrating community elements into the curriculum plan is an effective way to realize the seamless connection between education and life, so that students can understand that knowledge comes from life and can be used in life, so as to better adapt to and integrate into society.

Another informant echoed this, stating, “Winnipeg and Manitoba need more community in our schools. Our communities need more sense of civic pride”. When asked in the member checking interview what would lead her to leave the profession, Rebecca stated that it was the empty rhetoric of politicians claiming to prioritize education but diverting funding elsewhere. She said that living and working in downtown Winnipeg raised her awareness of the misalignment between rhetoric and funding, stating,

I think that everything stems from education, and at its core, it's like, if you want to fix all these systemic issues, you have to start where they spend their most time. And if you're going to put your money into buying [police] tanks, and sorry, buying them helicopters and buying boats, you're not fixing the issue. And that's what frustrates me... But if we could just appreciate and just care for where kids, where they grow up, because they grew

up in a school, where they grow up and how they're being taught and all that stuff, I think that maybe life would be better.

Samantha also felt frustration about attempting to do her best in a system which would not support her professional judgement, stating,

What would push me out of the profession would be if I felt like I no longer could have a positive impact on students... if I lost agency within my own classroom, if I had to start teaching to a test or if I had to start teaching to some provincial thing.

In short, both Rebecca and Samantha wanted adequate funding to do their job to the best of their abilities, flexing their professional judgement and expertise for the benefit of children.

Narrowing vision of education. The spectre of accountability in the Manitoba K-12 education system is not limited to assessment. The Province of Manitoba provides a guideline for how K-6 and grade 7-8 generalist teachers should assign time to subjects, albeit not content. While there is limited capacity for administrators to ensure teachers align with this time allocation, some K-8 school leaders will ask generalist teachers to submit a weekly timetable at the start of the year. This subtle administrative piece sends the message to teachers that they should be teaching as they scheduled for and inhibits teachers from adopting interdisciplinary or project-based approaches to teaching. Table 5.4 shows this breakdown by percentage of the school day and the equivalent days in a 185-day school year.

Table 5.4

Manitoba Education Curriculum Time Allocation

Subject	Grade K-6	Grade 7 & 8
English language arts	35% (64.75 days)	27% (49.95 days)
Mathematics	15% (27.75 days)	17% (31.45 days)
Science	10% (18.5 days)	13% (24.05 days)
Social studies	10% (18.5 days)	13% (24.05 days)
Physical / health education	11% (20.35 days)	9% (16.64 days)

Note. Adapted from Manitoba Education and Early Childhood Learning (2025)

What is interesting to note here is that as presented on the Manitoba Education website, this table shows disciplines as segregated rather than overlapping. Does social studies not include aspects that would align with English language arts? Are not elements of the science curriculum overlapping with physical/health education? Are the enduring understandings of how and why the world functions not interdisciplinary by nature (Drake et al., 2014)? By presenting a timed schedule of subjects to K-8 teachers, Manitoba Education is sending the subtle message to teachers that this is how their weekly schedule should be organized and facilitated.

The curriculum time allotment in a typical high school is far more structured, where students are often shuttled from class to class and teacher to teacher with little disciplinary connection between content. In a semestered discipline-oriented high school schedule in Manitoba, students are required to complete 30 courses, each at 110 hours, which for grade 9 and 10 students mean at least one compulsory course in English language arts, science, and social studies. As both Julie and Samantha shared in interviews during the AR study, the notion that co-teaching or collaborating across courses for multidisciplinary or interdisciplinary learning (around place or otherwise), was to them unrealistic.

The narrowing vision of education marginalizes student inquiry and interdisciplinary learning that may take students outside of the school (and away from seat time and direct instruction) (Roberts, 2016), while simultaneously contradicting Indigenous pedagogies that advocate for holistic approaches and understandings of the world (Chrona, 2022; Poitras-Pratt & Bodnaresko, 2023). In Julie's classroom, she even felt compelled to explain why elements from outside of the discipline of science were being included in the lesson. Even when, as in the case for Julie, Rebecca and Samantha, the classroom content that they base instruction on and then link student inquiry to is directly linked to specific learning outcomes in the provincial curriculum documents, interdisciplinary exploration then needs to be teased apart again to fit the Manitoba Report Card; this was an aspect Julie found particularly frustrating. Furthermore, the Report Card comments are expected to be formal and avoid contextualization for where and how that learning emerged.

Social studies is not necessarily a requirement of PBE but can and does often play an important foundational role for interdisciplinary approaches to place, particularly in K-8 generalist classrooms, as witnessed in this study by Rebecca's project. Social studies may include compulsory courses on history, geography, or civics. In Manitoba it expands to electives such as Current Topics in First Nations, Métis and Inuit, and Global Issues. The decline in time afforded to social studies courses has long been documented in the United States (Heafner & Fitchett, 2012) and indeed linked to the rise in standardized assessment (McGuire, 2007) but is an increasing phenomenon in Canada too.

Take Newfoundland and Labrador as an example, who announced that for the 2025/26 school year that some social studies courses at the middle-years level would be optional, cutting social studies in half to 49 hours a grade level (Head, 2025). This decision was made, claimed the Minister for Education, to "modernize" the N.L. education system and "bring back some of that engagement and motivate students to continue to be in school" (Whitten, 2025); a rationale which puzzled students (Head, 2025), the teachers union (Whitten, 2025) and raised concerns amongst academics in the social sciences (Kennedy, 2025). Following backlash, these plans were shelved by the Province of Newfoundland and Labrador but were done so with the Minister of Education qualifying the decision by stating, "changes still need to be made to improve student engagement and testing scores." (Kennedy, 2025). The implication from the Minister is that social studies courses are neither engaging nor contribute towards improved scores in standardized assessment.

The news from Newfoundland and Labrador gives a provincial policy directed reduction in course diversity. Conversely, a report from CIVIX, a Canadian educational resource organization in collaboration with Abacus Data found that even without explicit mandates from the province, school divisions and schools reduce courses and content on civics. In their survey CIVIX found that 64% of the 1900 Canadian K-12 teacher respondents felt that civics education was a low priority in their school, predominately due to an oversized emphasis on STEM (Science, Technology, Engineering and Mathematics) education (CIVIX, 2023). Embedded in the policies and rhetoric around standardized assessment is a bias towards a specific teaching method, content and metric for accountability. Despite scholarship from this study and others on the powerful impacts that PBE can have for communities, students and teachers, it does not align with the vision for K-12 education to which proponents of standardized assessment advocate for.

Teacher competency. Recently in Manitoba, a spate of high-profile sexual abuse cases from male and female teachers in Manitoba led to the speedy implementation of the Teacher Competency Standards (Manitoba Education and Early Childhood Learning, 2025). This document outlines the expectations for Manitoba teachers for them to maintain their teaching licence, including:

1. The teacher has professional knowledge and implements professional instructional methods and practices.
2. The teacher is committed to student success, well-being and learning.
3. The teacher fosters a safe and inclusive environment.
4. The teacher is engaged with Indigenous students, families and communities.
5. The teacher fosters professional relationships in ways that are consistent with principles of equity, fairness and respect for others.

On the surface these criteria appear appropriate. Yet underneath there are no operational definitions of what constitutes an appropriate level of “professional knowledge” and “professional instructional methods and practices”, “student success” or “respect for others”. More troublesome is that anyone – a colleague, principal, parent, community member – can anonymously report a teacher for failing to meet these undefined competency standards, which can lead to disciplinary action or ultimately the removal of a teaching licence.

Janzen et al., (2025) has criticized this new policy as being derived from the recent sexual abuse cases but ultimately having little to do with child protection and instead focuses on professional capacity to meet undefined standards under the guise of ‘accountability’. This has created a “chilling effect” for teachers already under challenging working conditions (Janzen, et al., 2025). What the Teacher Competency Standards do suggest however, is that it is the responsibility of K-12 teachers to engage with the community in which they teach – the five criteria were in my view fully met by the teachers participating in the AR study. But they could also be interpreted by those whose values do not align with PBE as not demonstrating professional competency. At the time of writing there is uncertainty around how these new standards will impact teaching in the Manitoba K-12 system, and how they will interact with

aspects of accountability detailed here, such as standardized assessment, seat time and curriculum focus.

For example, the Standards set an expectation of “professional knowledge and implement[ation] of professional instructional methods and practices”, commit[ment] to student success, well-being and learning”, inclusivity, “engagement with Indigenous students, families and communities” and “principles of equity” which all align firstly with Call #62 and #63 of the Truth and Reconciliation Calls to Action and *Mamahtawisiwin* (Table 5.3), which as evidenced from the AR participants would put them in strong standing in the view of these standards.

The question which stakeholders in the K-12 education system should ask is, who or what is the system accountable to? Is it accountable to international metrics of what youth should know at a specific age and how that can be assessed? Is it accountable to the global economy in the drive for innovation and growth? Or are educational institutions accountable to the people and places in which they operate, and students and their relations inhabit? As Gruenewald (2003a) is careful to clarify, CPBE does not outright reject economic determinism – there is a role for understanding and responding to the ways people, businesses and government subject humans and the natural world to the economy. Rather, that this should not be the strongest or only determinant of what the purpose of the K-12 system is for. The policies and practices that often operate in the Manitoba education system provide a narrow understanding of accountability. As we will see, this has significant impacts on teacher recruitment and well-being.

Teacher Recruitment and Retention

K-12 classroom teaching has been described as a lonely experience (Dussault & Deaudelin, 2001; Einav, et al., 2024; Neto et al., 2015). Schools are full of people, but teachers are spending much of their day planning, teaching, assessing and reflecting individually behind closed doors. The work is increasingly taxing on physical and mental health (Ferguson, James & Bourgeault, 2022; Sokal, Trudel & Babb, 2021), under-resourced (Ali, 2021; Winton, 2022; Yoon in Hajer, et al., 2025), subject to increasing levels of violence (Macintosh, 2026; Santor, et al., 2026) and as a result, teachers are leaving the profession in increasing numbers (Impey, 2025; Wong, 2025). In Manitoba, teacher vacancies are often left unfilled by substitute teachers, with particularly high numbers of unfilled term or permanent vacancies in rural and Northern communities (Macintosh, 2023). This is layered on top of teachers needing to encourage and maintain student attendance, maintain engagement and demonstrate accountability to the Manitoba education system through a variety of metrics.

The Canadian Teacher Federation (CTF) 2025 Spring Report titled *One Foot Out the Door*, documented that despite a slight improvement in working conditions from the previous year, 45% of Canadian K-12 teachers considered quitting the profession in the last year. The Report identified ‘professional value’ as having the biggest impact on their considerations to leave the profession, with students being the most important reason for remaining (CFT, 2025). A survey conducted by Probe Research in early 2026 on behalf of the Manitoba Teachers’

Society echoed national findings around working conditions but focused specifically on the increasing workload for addressing learners with complex needs. Of the 3470 respondents, 81% claimed class size, complexity and lack of supports were their primary concern, with 80% saying the number of students with complex needs had increased over the last five years. This included a 40% increase in teachers sharing that they had six or more students with complex needs in their classroom than nine years prior (Manitoba Teachers' Society, 2026).

At the pre-service level in Manitoba, Faculties of Education (including my own at the University of Winnipeg) are not reaching enrollment capacity, despite significant demand for certified teachers in the province. In Kemp's (2024) reporting for CBC News, a consistent theme from teachers and Faculties of Education administrators was that increasing workloads and an under-resourced system was deterring those considering the profession. Yoon (In Hajer et al., 2025) has documented that under the administration of the Progressive Conservative government from 2016-2023, the Manitoba education system was dominated by austerity measures that led to "cuts, cutbacks and layoffs... [to] programs, structures and resources across all school divisions and schools" (p. 38).

This recent period also featured the staggering statements in 2020 from the Minister of Education at the time, who openly pontificated as a guest speaker at the Global Home Education Exchange Conference (an organization guided by "family values", "Christian faith" and "parental rights" and also featured far right commentators and politicians from Germany, Russia and the United States) the extent to which government should manage and fund public education. The Minister suggested during his conference speech that the pandemic offered an opening for parents and communities to push for more control over home schooling stating, "Education isn't simply a state activity — maybe shouldn't even be primarily a state activity" (In Lavasseur & Annabelle, 2020).

Since the election of the New Democratic Party as the governing party of Manitoba in 2023, the response from the Province of Manitoba has not led to improved working conditions in Manitoba K-12 schools but instead appears to be tinkering around the edges of the system. This has included a policy to expand the list of eligible degrees permitted for entry into a Bachelor of Education program, approve an accelerated Bachelor of Education program at a new post-secondary institution, and to streamline and raise teacher wages across the province. While the expansion of teachable major and minors to include Indigenous studies, environmental science, human rights and computer science may permit more students to access Bachelor of Education programs (the University of Manitoba Faculty of Education claimed that up to 30% of applicants were denied entry because they lacked the right prerequisites), is likely to increase enrollment in future years, it remains to be seen whether the other two policy decisions address lagging teacher recruitment.

Lagging enrollment in teacher education programs and poor retention does not appear to be due to low salaries. Manitoba has had for years one of the highest compensation packages for K-12 teachers, with Statistics Canada (2024c) identifying Manitoba as having the highest starting salary for a new teacher in the 2022/23 school year. An updated contract agreement signed

between the Province of Manitoba and the Manitoba Teachers' Society in summer 2024 compensated the highest educated K-12 teacher with 10 or more years' experience \$125 000 per year, in one of the most affordable provinces in Canada, which led one Manitoba based academic to call an "astronomical" pay raise (Macintosh, 2024).

At a time when other Winnipeg post-secondary institutions cannot meet quota, the decision to award Canadian Mennonite University, (which articulates its 'Mission Statement as, "an innovative Christian university, rooted in the Anabaptist faith tradition, moved and transformed by the life and teachings of Jesus Christ. Through teaching, research, and service CMU inspires and equips for lives of service, leadership, and reconciliation in church and society" (CMU, 2025)) a small-scale accelerated teacher education program, appears to be a political decision rather than one which can meaningfully address teacher recruitment and retention.

The challenges of K-12 teacher recruitment and retention is not specific to Manitoba, or even Canada, but according to the OECD (2025) and UNICEF (2024) is a global challenge. But there are factors specific to the Manitoba education system to which can elicit a response. If educators are empowered and supported in bringing their vision of what and how classroom teaching to life, then the public education profession can be seen as an attractive and rewarding proposition for young people.

This was certainly evidenced by the voices of Julie, Rebecca and Samantha. All three teachers were highly engaged and determined to design and facilitate high quality lessons despite the array of barriers to that they experienced. For them, the use of PBE allowed them to merge their personal beliefs about what matters in education, with their professional capacity to do so. These educators had pursued post-graduate education in postbaccalaureate or graduate studies, not because it led to financial gains, but because they were invested in their work and the profession. Even though these educators had a strong grasp on their practice, they still craved administrative support, learning support and mentorship, but on their own terms. This began with tacit support from administration on adopting interdisciplinary or inquiry approaches, extended into financial support for field experiences, and at the far end included collaboration and co-teaching.

While Rebecca was afforded the opportunity to work alongside an Outdoor Learning Support worker, this position would be eliminated for the following year. Neither Julie nor Samantha could reasonably expect this opportunity and none of the teachers had opportunities for co-teaching, that the AR project offered. Research on Communities of Practice (CoP) has shown that connecting teachers through formal and informal groupings has a positive impact on teacher confidence and competency, (Han et al., 2026; Kelley et al., 2020; Kleinschmit, 2023) including in PBE. For example, Han and colleagues (2026) found that developing communities of practice that included community experts outside of K-12 education was highly effective in increasing teacher self-efficacy in facilitating STEM aligned place-based learning. Networks of support is further explored later on in this chapter through pathways for supporting teacher well-

being and retention (Table 5.6) and the establishment and growth of community-based and nonformal place-based partnerships.

In Summary: Place-based Education in the Context of the Manitoba K-12 Education System

The broader exposure to, exploration of, and implementation of PBE in the metro-Winnipeg region cannot be divorced from the wider context of the ongoing challenges of public education in Manitoba. There are a confluence of factors impacting the current state of the public education currently: student attendance and engagement, teacher recruitment and retention and accountability to youth and the communities in which public schools are situated and serve. The first part of this chapter aimed to layer the realities of the Manitoba K-12 public education system over the historical and contemporary context of settler-colonialism which the City of Winnipeg was founded, and which have direct links to PBE in terms of what and how K-12 teachers engage in their work. How can the Canadian education system respond to these challenges? Are there pathways to simultaneously increasing student interest in attending school, engagement when attending school, and empower classroom teachers to cultivate and hold a sense of purpose and meaning for their work?

I am not proposing PBE as *the* solution to the current challenges facing the Canadian public education system. Public education is an incredibly complex system, and, as one of my former colleagues in the public education system used to say, “We’re always leaking oil”; the system is never secure, and there are always different challenges and needs that individuals and groups within the system need to respond to. Furthermore, PBE in of itself is not the only approach to teaching and learning in the K-12 education system that would benefit from the barriers to teaching turning into catalysts for teaching. Land-based education and other PBE affiliated approaches highlighted in Chapter 2 all face similar challenges (Link & Burton, 2025; Lowan-Trudeau, 2019; Pirosko, 2025).

The findings of this study suggest that PBE offers a promising approach to teaching and learning which can offer important ways to respond to current challenges. The survey findings indicated a significant interest from K-12 classroom teachers for increasing the contact with people and places and their practice, and a notable level of current utilization of experiential, project-based or inquiry approaches to instruction. Yet the examples provided were, for the most part, limited to superficial examples of PBE, which often focused on cultural appreciation. Self-reported by AR participants and observed by me included evidence of impassioned teachers meeting their visions for what and how their teaching should look like, strong student engagement and participation from students, positive feedback from students and families (for Rebecca and Samantha specifically), and accountability to curriculum, students and the community. For Rebecca and Samantha, many of these elements were cultivated by their teaching content and pedagogies, opening opportunities to learn more about their students and the community in which they taught.

How can Place-based Education be Supported?

So, if PBE has the possibility of responding to the current context, specifically the challenges of the Manitoba K-12 system, then what competencies and dispositions should be nurtured in pre-service and in-service teachers? This next section will highlight four pathways for supporting PBE: (1) supporting the confidence and competency in teaching inquiry learning; (2) encouraging a ‘paradigm’ shift in what and how teaching and learning should look like in the K-12 classroom; (3) understanding how school systems can work with teachers to navigate human and structural barriers; (4) and, raising awareness of the role that community-based and nonformal education organizations can play in working alongside teachers for PBE.

Inquiry Learning

A first step to supporting teachers in PBE is to develop competencies and confidence in constructivist pedagogies such as inquiry and project-based learning. Teachers with generalist assignments – that is, responsible for facilitating all core curriculum such as English language arts, science, social studies and mathematics – are common practice in K-8 metro-Winnipeg schools. When classroom teachers have the same group of students for most of the school day from September to June, there is rich potential for embedding place at the core of what and how they teach. PBE is particularly conducive to interdisciplinary learning, which draws together the ‘big ideas’ across curriculum into ‘essential questions’ that guide inquiry learning with the aim of instilling ‘enduring understanding’ that permeates students’ capacity for knowing, doing and being beyond the classroom and grade level (Drake, et al., 2014).

Strong examples of schools which are structured specifically to support interdisciplinary, inquiry or project-based approaches at the high school level have also emerged over the last 15 years in metro-Winnipeg. Three of these examples are Louis Riel School Division’s Propel program, Pembina Trails Collegiate, and Seven Oaks School Division’s three Met Schools. Each of these three programs will be detailed in turn.

The Propel (Project, Pursuit and Exploration Learning) program is an award winning one semester interdisciplinary, project-based learning program for grade 11 and 12 students, which integrates English language arts, physical and health education, and information and communication technology. Students enter Propel by proposing a project in which they will be mentored by a certified teacher and expert in the community. Since its inception in 2015, the program has provided opportunities for dozens of students to engage meaningfully in, with and for places, leading to products and action projects to develop. The Propel program is optional and application based, running out of a larger traditional school.

Pembina Trails Collegiate in Pembina Trails School Division is a whole school approach to project-based learning at the grade 9-12 level. Starting in grade 9 and into grade 10, students enrol in compulsory interdisciplinary learning cohorts that integrate English language arts, social studies and science supported by a certified teacher, which winnows down to two courses in grade 11 and then none in grade 12. A few courses – for example, mathematics and physical/health education from grades 9-12 - are taught individually (Pembina Trails Collegiate

Student Handbook, 2025). As with Propel, the grouping of courses together allows for ‘big ideas’ that cut across disciplines to orient student inquiry projects, while also providing extended blocks of time for students to learn in, with and for the community. Both Propel and Pembina Trails Collegiate task students with presenting the products or findings of their inquiry projects through an exhibition of learning, which concludes the semester.

Seven Oaks School Division opened its first Met School in 2014, and since that time expanded to two more schools. Met Schools are based on the philosophy of founders Dennis Littky (Littky, 2004) and Elliot Washor (Washor & Mojkowski, 2013) who were originally tasked with increasing student attendance and engagement in a low socio-economic area of Providence, Rhode Island in the 1990s. Students are enrolled and cohorted in grade 9 into classes around 15 in number and one teacher-advisor. The teacher-advisor remains with the cohort from grade 9 through to graduation and is responsible for facilitating and assessing most of the students’ compulsory and elective courses. Aside from mathematics and aspects of chemistry and physics, direct instruction precedes students developing inquiry questions that they pursue for blocks of or a full semester through interviews and experiences such as internships which run two full days each week and are selected to align with students’ electives and interests. Between two and four times a year, students host an Exhibition of Learning, where they present their school-based project questions and findings. For disclosure, I was a teacher at a Met School for 4.5 years and then founding principal-teacher at a Met School for two years before transitioning into post-secondary education. In my time as a teacher-advisor and then principal-teacher, I facilitated teacher-led inquiry and supported many student projects that would constitute PBE.

Outside of these models, limitations with teacher confidence and competency with inquiry learning in Winnipeg should not come as a surprise. The University of Winnipeg, where I currently work, has the largest Bachelor of Education program in Manitoba, with 1200 students enrolled each year. Yet the program does not offer any courses explicitly on inquiry or project-based learning. There is a notable clash of philosophies and practices between inquiry and project-based approaches and an education system which continues to value the processes and results of standardized assessment.

However, a 30 credit-hour Post-baccalaureate Diploma in Education (PBDE) program was developed with one metro-Winnipeg school division in the last decade which holds 3 courses dedicated to inquiry learning and project-based approaches and has at the time of writing graduated over 100 students, with a similar number currently enrolled. The survey questionnaire in this study shows that teachers are both interested in and practicing constructivist pedagogies in their classroom, and enrolment in PBDE programs at the University of Winnipeg confirms this appetite to learn more.

Places are Pedagogical: A Philosophical Approach to Place-based Education

A second step towards embedding PBE into K-12 teaching comes from making a stronger link between instructional design and what teachers hold as the purposes of K-12 education. In Chapter 2, the work of Roberts (2012) was referenced who has focused his research

on the philosophies and practices of experiential education. Here, Roberts makes an important distinction between ‘learning’ and ‘education’, with the former being occasional practices that are drawn into teaching and the latter being part of a sustained and holistic approach to teaching that is grounded in a broader philosophy of praxis in teaching. Take a high school science class as example: experiential learning could be exemplified by a teacher direct instructing on a chemical reaction, followed by students following instructions to enact that reaction with an experiment. The experiment (or experience) served to confirm or consolidate the direct instruction. But this differs from situating experience at the centre of learning, where the experience offers a launching point for student interest, questions and further inquiry.

This distinction between learning and education can be applied to place-based approaches to teaching. The survey questionnaire collected examples of place-based learning, in which teachers used people or places to supplement the content from classroom instruction. One informant cited visiting a local park to examine shape, perimeter and area linked to a mathematics course, another informant took students to the Manitoba Legislature to witness question time which tied to the social studies curriculum. The survey offered one example, where students visiting a place that had connections to Indigenous and settler history, provided an example of ongoing challenges with balancing environmental and human needs, and acted as a focal point for further investigation, with Rebecca and Samantha’s unit plans also providing examples of PBE instead of place-based learning.

There are important differences between learning and education. Students *learn* content; but to be *educated* is a broader more holistic conception that requires philosophical grounding in a perspective of what and how effective teaching is designed and facilitated and aims towards. What Roberts (2016) argues for in a subsequent text on designing for experiential learning, is a paradigm shift, from an old model of education to a new model of education, detailed in Table 5.5.

Table 5.5

Instructional Paradigm Shifts

Old Paradigm	New Paradigm	Criteria
Instructional	Teach people, not content	• We must design learning experiences that are student-centred. • These experiences must be designed to allow for them to discover and construct new knowledge with each other and you as the teacher (p.71) • Spend more time listening, less time talking

Seat time	Less is more	• Research simply does not support solely using a direct instruction, lecture style of teaching • Design your class with the question of, ‘What do you want your students to learn in a year?’ (p.75)
Teacher as expert	Learning alongside students	• Working with humility - there is much more we can know about a subject
Primacy of content	Experiences before labels	• Starting with powerful learning experiences, rather than starting with content and seeing what experiences fit • Need to have learners practicing decisions in as an authentic environment as possible (p.79)

Note. See Roberts (2016).

These paradigm shifts Roberts (2016) advocates for experiential education offer a dispositional starting point for PBE, from which the structures of learning can then be built. In many of the examples of PBE in the literature, the survey informant responses, and Rebecca and Samantha’s work in the action research study, student inquiry was the structure which framed place-based work. But even with a strong foundational understanding interdisciplinary or project-based approaches to curriculum and opportunities for engaging meaningfully in, with and for places, PBE may still be limited without teachers recognizing what and how places in the community can be used as pedagogical tools that not just supplement classroom learning, but offer starting points for learning, deepen understandings of curriculum content and provide sites for students to demonstrate their learning.

Yemini and colleagues (2023) meta-analysis of peer-reviewed PBE research claimed that despite scholarship being overwhelmingly guided by the work of three academics - David Gruenewald, David Sobel and Greg Smith - there are significant differences in how PBE is framed, the actors involved and contexts for the work. From early scholarship, PBE was frequently defined as an approach to teaching and learning which situated what and how students learn in, with and for community, utilizing an inquiry or project-based approaches as a framework for connecting students with curriculum, and seeks to engage deeply with places.

The survey questionnaire showed that two of the thirty informants shared examples of teaching that aligned with this definition. In one example, an OE LST Teacher focused on water, fish, and human relationships with nature. In the second example, a high school teacher described three lessons: a community mapping project which involved students exploring the community, identifying landmarks, businesses and organizations and mapping them back in the classroom; community interviews that profiled the experiences of business owners and

community leaders to understand the nature of the community and historical shifts; and, a community clean-up in concert with a local environmental organization.

These two examples converge and diverge: both were from the senior years and had strong connections to Manitoba curriculum outcomes; one was deeply linked to the local community, whereas another required travel for connecting to a place beyond the local context of the school and home of students; significant funds were a cited requirement for travel, equipment (including safety gear), and for the position of OE LST. In the community-based example, money was not required, with all lessons facilitated with minimal budget (cost for transportation – that is, money to get students away from their school community to another part of the city – was determined as the most significant barrier to enacting PBE). What is striking here is the dominant view from survey informants that their community was unable to offer people or places that could initiate, supplement or offer space for community action projects. Instead, there was a belief that *real* experiences required going *elsewhere*.

This was a notion expressed by all three participants in the action research study. As described in Chapter 4, Rebecca found that taking learning outside was both accessible and vital to developing her PBE unit. At the high school level, Julie and Samantha both faced human and structural barriers to getting students outside. Both believed this was important and would contribute meaningfully to their projects but were deemed not feasible. It would not be accurate to claim that these two projects were neither successful, nor constituted PBE. Indeed, important takeaways for both Samantha and I was that firstly, powerful PBE could be accomplished without extensive time spent in the community, and second that students would identify places beyond the school as important to them. Instead, when students had possible places in the community to select shared with them, they often elected to focus on school-connected places instead. Samantha stated,

I think part of that was just my own misconception that if students chose a school or a teacher that they were just trying to do, that maybe they weren't thinking deeply enough, or maybe they weren't putting that much effort into it. That was a big learning moment for me was that it was the opposite. It's exactly what you just said. That's already coming out in these treaty projects that my [grade] 10s are doing, too. Just I mean, this is where most students spend most of their time. Yes. And so, it makes you would hope, that should be our hope, is that students want to highlight their schools. That's a really good.

Far from students picking an easy option for their place inquiry, they were sharing with their peers and teacher how important very local places - whether that be the outdoor basketball court, the choir room, or the football field – held meaning and value to them. They highlighted how much more they valued these places by recognizing the privilege they had in having them accessible and became more connected to them by speaking with adults who spent time in those places, often mentoring them.

Based on the findings of this study and complemented by several case studies on PBE identified in Chapter 2 (Brook, 2016; Conkey & Green, 2018; Perkins, et al., 2010; Wason-Ellam, 2014), the idea that PBE needs to be exotic and involve exploration of unknown or

unfamiliar places a prerequisite, should be rejected. This is an idea picked up by Brooke (2015), who claimed that the increasing suburbanization of United States residents (and subsequently United States schools) was creating a ‘placelessness’ in education, with suburbia being a “vexed space” (p. 2) for learning. While Brooke acknowledges that the downtown core of a typical North American city is often seen as a place to understand history, commerce and culture, suburban communities still offer three tensions that are vital for exploration, namely: diversity and housing; freedom/self-determination and responsibility; and landscape and ecology. None of the informants of this study were employed by a school division situated in the downtown core, with all informants working in Divisions that extended into suburbia. For young people to uncover and wrestle with these tensions, also means that teachers themselves need to overcome the perspective that their community does not have anything generative to contribute for teaching and learning. Overcoming the need for the exotic is an ongoing challenge for experiential learning, writes Roberts (2012), which may necessitate additional support to help make these local connections and sites of place-based inquiry.

An important component of PBE is the demonstration of learning, which often manifests as a community action project (Vander Ark et al., 2020). McInerney et al. (2011) has rightly pointed to the significant hurdle of classroom teachers taking on community action projects which authentically engage learners in projects with impact on their local communities. Indeed, examples such as from classroom teacher Elaine Senechal (in Gruenewald & Smith, 2010) - who facilitated a project in which students collected air quality samples, immersed themselves in public health and policy documents, linked poor quality public transportation to racialized communities and effectively lobbied municipal government to shift their policy and funding models - is a rare example in the PBE literature. As McInerney et al., (2011) suggest, “one of the dangers with PBE is a tendency to view the solutions to environmental and social problems as lying wholly within the grasp of local people” (p. 11).

With two exceptions, the evidence provided by the remaining 28 informants is that they utilized community experts and locations to enhance classroom teaching and learning, but that this work did not constitute PBE, and just one informant detailed efforts to draw in critical pedagogy. Working within the current human and structural limitations of the K-12 education system while pushing these boundaries is a third component of supporting PBE.

Overcoming Barriers for Place-based Education

The catalysts and barriers to engaging with place that were shared by survey informants aligned with research on the human and structural barriers on PBE (Conlon et al., 2024; Miller & Twum, 2017; Yemini et al., 2023). Human barriers included student trust and perspectives on PBE, school leadership support, professional learning support, and teacher perspectives on PBE. Structural barriers included a siloed subject disciplines, money, transportation and time were also present, but across the K-12 system.

Some of these barriers are unevenly distributed across the K-12 system. For example, despite the guidelines provided by the Province of Manitoba on time allotment per discipline, the

generalist teacher in K-8 classrooms does not need to be as concerned with this as the grade 9-12 teacher in the typical 4-6 period-a-day high school with set periods. This was the experience of Rebecca and mirrored by some of the informants in the survey, where these constraints were removed, it allowed for sustained time outdoors, working on interdisciplinary projects and flexibility. While the findings from the survey and AR were not conclusive, there also appeared to be less support through LST at the high school, as compared to K-8. Julie and Samantha both referenced student trust as a barrier to taking students outdoors, but in both these projects, these teachers tasked students with homework which required them to get into the community outside of the school day. Julie asked her students to collect snow samples for analysis of CO₂ back in the classroom, and in Samantha's classroom, students often contacted and interviewed individuals in the community as part of their podcasts. It is not conceivable for students to independently engage in community-based learning outside of the K-8 classroom.

Money for transportation and access to specific cultural sites was cited as the biggest barrier for survey informants, followed by the time needed to plan, travel and be in places. Two additional barriers that were not evident in past research emerged: school location and community interest in supporting PBE. For the former, informants claimed that travel was needed to get to the places which related to curriculum; for the latter, one informant stated that they faced, "certain difficulties in establishing cooperative relationships with community institutions and individuals" and another informant claiming, perhaps surprisingly, that students were not interested or did not engage with place-based practice.

It is worth dwelling on the desire of survey informants to engage more deeply in place to engage students' understanding of the curriculum and their understanding of what it means for their lives beyond the school. Statements from informants in this study underscored the desire to draw the community into the classroom and strengthen understanding of the curriculum through place-based experiential means. Kollmuss and Agyeman, (2002) call this narrowing the 'value-action gap'. In their synthesis on the disconnect between pro-environmental beliefs and pro-environmental actions, they developed a model which depicts a feedback loop between internal factors (for example: personality factors, value traits) and external factors (for example: infrastructure, political, social, cultural, economic) exiting out through a series of incentive barriers and old behavior patterns (p. 257). What this points to is a need for alignment of teachers wanting to engage in PBE (internal factors), coupled with removing barriers for them to do so (external factors), and complemented by incentives for doing so (for example, support from administration, families and community).

Interestingly, a further research study suggested that teachers who had shifted away from a traditional approach to teaching and learning were more likely to engage in PBE. Conlon and colleagues (2024) study with middle and high school science teachers found that those with 'mutualist' value orientations, where one, "view[s] the natural world as capable of relationships with humans, as part of an extended family, and as deserving of rights and care" (p. 15), were more likely to embrace and practice PBE than those with other value orientations. Mutualism differs from utilitarian (the natural world should be used for human benefit), pluralist (depending

on the issue, the natural world should be protected from or used for human benefit), distanced (not concerned with the natural world), and assigned value (the natural world has relative value). This orientation aligns with notions of Traditional Ecological Knowledge (Birkes, 1993; McGregor, 2006) of many Indigenous groups and suggests that alignment of teaching philosophies and practices in the classroom can work towards teaching for reconciliation and climate change education (the latter of which will be addressed later in this chapter).

Applied to this study, we might understand the value-action gap as teachers presenting strong internal factors towards PBE, mediated by firstly the real or perceived external factors (time, money, curriculum, school/leadership support) and secondly the lack of incentives for enacting PBE and the challenges to enacting a pedagogy removed from traditional classroom teaching practice. It might also be recognized that teachers' understanding of decolonial and Indigenization content and practices as guiding them towards a 'mutualist' value orientation. In the survey, informants expressed desires to teach with place and use constructivist-based pedagogies but did not have the capacity. It was not necessarily system barriers which limited their work towards PBE, but professional competency. The most exciting examples of PBE in the survey were when classroom teachers could collaborate with colleagues or community organizations on initiatives. When these opportunities were not available, the utilization of place was limited to cultural appreciation or supplementary experiences. The AR study participants used PBE to become the best version of their teacher-selves that they could at that time.

When teachers are limited – by human or structural barriers – this can lead to undermining teacher well-being, which in a system faced by significant challenges with recruitment and retainment, needs to be prioritized. Several findings from this study align with a series of research projects from Sokal and Trudel (See Sokal, Trudel & Babb, 2021; Sokal & Trudel, 2022) on teacher well-being in the Manitoba education system, which includes their work with Pressley and colleagues (2025) and outlined in Table 5.6.

Table 5.6

Six Steps for Supporting Teacher Well-Being and Retention

Step	Description
1, Shift to systemic solutions	Address the chronic systemic mismatch between job resources and demands through multi-tiered, evidence-based, role-specific approaches.
2, Amplify Educators' Voices and Autonomy	Teachers and other educators must be included as respected co-creators who propose, tailor and evaluate the effectiveness of reforms.
3, Offer Program Supports	Supports must be embedded in school plans and include mental health supports as well as ongoing, relevant educator professional development about well-being.

4, Address Workload and Staffing	Reduce administrative burdens, increase support staff, and provide adequate planning and recovery time.
5, Foster Psychologically Safe Schools	Leadership should focus on supporting the 13 tenets of psychological health and safety for all members of diverse school teams
6, Prioritize Renewal	Support real change in school culture and organization through policy, structure, and support.

Note. See Pressley, et al., (2025)

Accompanying their framework, the authors argue that, educational leaders and policymakers should consider shifting to more productive and strengths-based perspectives where individuals and systems can work together to empower educators, enhance overall systemic support, and change key outcomes (i.e., increase wellbeing and retention). We urge school leaders and policymakers to avoid one-size-fits-all solutions that are misaligned with the actual needs of teachers and instead focus on multi-tiered approaches (2025, para 4.).

The three steps that most align with the findings of this dissertation are ‘Amplify Educators’ Voices and Autonomy’, ‘Address Workload and Staffing’ and ‘Prioritize Renewal’. These three elements overlap in that they all speak to teachers being freed from structural barriers and supported by human resources to engage in the type of work that they see as beneficial for the learners in their classrooms and the communities in which they teach. In the survey findings, collaborative planning and support was needed to move beyond superficial or supplementary utilization of place. What was evident in the AR study was how valuable support from LST, administration and, as stated by the participants, me as an outsider to planning and facilitating PBE.

For Rebecca, the OE LST was a critical voice and support for her place-based learning, and with the elimination of the position, challenged Rebecca’s confidence in moving forward with robust outdoor learning opportunities. Working in a high school it was deemed as inconceivable for Julie and Samantha to seek support for PBE with their LST. At the same time, the Province of Manitoba, school divisions and schools have often prioritized small class sizes over learning support, while the Manitoba Teachers’ Society has attempted to lobby for increases in both salary and staffing, but often only being able to claim the former over the latter. Lovinson and Hyunjung Mo (2024) found that teachers would prefer additional counselors, nurses, and inclusion specialists on their teaching staff over having a 10% pay increase, which are findings that this research supports but runs contrary to many school division’s policies.

For some teachers, ongoing professional development is needed. Indeed, as Bustamante and colleagues (2025) have noted, for many teachers, the only opportunity for sustained observation and engagement in debrief and peer feedback is during their pre-service programs, with a sink or swim approach often taken once teachers are working as professionals within the

K-12 education system. The exception to professional support for Julie and Samantha, and partly Rebecca, was through AR projects such as this, where each teacher brought their own teaching style, theory or framework, and curriculum outcomes and used the through-line of ‘place’ to link them. It is possible that the strong support that the AR participants expressed for the process and products of the collaboration was because they were starved of mentorship and collegial support. For example, Samantha emphasized how much she appreciated and benefitted from co-teaching and the cycles of plan, act and reflect (Greenwood & Levin, 2007). Julie valued the presence and support for planning and teaching critical perspectives in a new school. Rebecca referenced the value of AR in supporting the transition to an early-years generalist position, the in-built accountability and adult support for community walks.

The evidence provided by AR participants largely validates the goals of AR as outlined in Chapter 3, namely: teachers get support in working through their own professional questions and direct application to teaching practices (Mertler & Charles, 2011) and the process spoke to working through the immense human and structural challenges of the K-12 education system (Kemmis, McTaggart & Nixon, 2014). In sum, this dissertation has outlined there are a number of strengths that PBE can bring to student learning experiences in the K-12 system that address ongoing challenges of the Manitoba K-12 education system. If stakeholders consider this a worthwhile venture, then to expand the reach of PBE and strengthen the quality of PBE facilitation will require empowering and resourcing teachers to provide effective education that meets the needs of their students and fulfills their philosophies of what teaching and learning should look like in their classrooms. As we will see next, internal supports can be met with external organizations and programs working alongside K-12 teachers.

Community-based and Nonformal Place-based Education

A fourth step to support teachers is through the development of organizations and programs outside of K-12 schools that focus on place and nurture the embedding of PBE into teacher practice. In Yemini et al.’s (2023) broad survey of peer-reviewed PBE research the authors found that in most PBE case studies, the approach was facilitated by organizations external to the education system. In their work at Columbia Climate School, Xu and Iyengar (2023) identify many of the same approaches to climate change education as PBE, namely that the learning needs to include experiential, constructivist approaches, and be contextualized to the local environment and community. They map out different interventions in the public school system: formal education which constitutes traditional classroom-based learning; community-based learning, where youth learn in spaces such as libraries, wildlife preserves, museums and science centres, including citizen science projects; and nonformal education, which sits outside of the traditional school system and school disciplines with grading systems. Without support tailored to the needs of teachers – either through professional development, or programs external to public education that alleviate time, money and the myriads of logistical challenges – PBE may remain marginal or poorly conceived (Miller & Twum, 2017).

What would happen if external factors were reduced, PBE practice was incentivized, and teachers were supported in breaking out of traditional teaching practices? Two informants alluded to possible solutions: one suggested that “community driven partnerships” would be advantageous, with another informant wanting their school to “actively build long-term and stable partnerships with the community”. What might this look like in practice? Two organizations – one from the United States, another from Canada – offer models for how organizations can act as conduits between place and the K-12 classroom. Profiles of these two organizations are detailed in Table 5.7.

Table 5.7*Community-based and Nonformal K-12 Place-based Education Organizations*

Name	Overview	Connection to Place	Connection to Classroom
Campus Calgary Open Minds	Collaborates with organizations such as between YMCA Calgary, a Bird Sanctuary, Calgary City Hall, Calgary Zoo, art centres such as the Southern Jubilee Auditorium and Arts Commons to plan for classrooms to spend a week-long immersion at a local place. The week-long immersion allows for classroom learning to go ‘beyond the field trip’ and to become a catalyst for classroom inquiry.	The one-week immersion connects places in Calgary to curriculum with the intention that this learning then feeds back into classroom instruction. The focus for the week-long experience is oriented around an inquiry question on place and explicitly seeks to take an interdisciplinary approach that draws together place-based experiences, community expertise and student reflection.	The organization establishes and maintains relationships with partner organizations and oversees the relationships between schools and organizations. Participating teachers are supported through a supplementary professional development program, which aids their understanding of how to design and integrate experiential, interdisciplinary place-based learning into their teaching practice.
Great Lakes Water Resource	Organizes and leads a week-long immersive program on different	Mornings focus on ‘site-specific’ ecological features and challenges in the Great Lakes	The link between scientific literacy in the morning sessions, place-attachment in the

Education Camp	aspects of Great Lakes ecology.	region, including fisheries, wetlands, watersheds, forestry, history and maritime heritage, each tied to specific careers. Afternoons allow students to select place- specific, natural resource-based recreation or field trips, that include sailing, wading, swimming, or visits to museums, marine sanctuary, natural areas or walking trails. Sessions stretch into the evenings, with a focus on leadership opportunities such as debates, policy development and community-action projects.	afternoon, and leadership for stewardship in the evening, there is a strong thread of PBE best practices throughout. Citizen-science plays a central role, with students working with scientists to collect and interpret data and looking for ways to act on their findings. This program is a ‘pull- out’ for individual students rather than classes and does not connect directly back to classroom instruction.
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The Campus Calgary Open Minds program offers an example of community-based PBE, while the Great Lakes Water Resource Education Camp is a nonformal model for PBE. Each example engages formal schooling in deconstructing its practice and deeply connects young people to places and experts as mentors. To establish such programs takes significant resources. For example, Campus Calgary is funded by a cohort of government and charity organizations that host visits, and businesses such as Cenovus Energy, Conoco-Phillips and Chevron. The Great Lakes Water Resource Education Camp operates out of Michigan State University, who offer the camp as a ‘pre-college’ program, and coordinate with 4-H Michigan links between government and non-for-profit agencies and experts each year. But with the right leadership, programs like this could be possible, including in Winnipeg.

Like many urban centres in North America, Winnipeg has several social and environmental organizations which offer site-based experiential learning with tentative links to place. At present, just one example of such a program exists in Winnipeg: the Assiniboine Park and Zoo Residency Program. Running since 2018, this program offers eleven schools each year a sustained relationship with the organization, through free repeated visits and workshop

facilitation by the organization. This learning then feeds back into classroom inquiry projects that often focus on nature and animals that align with curriculum SLOs (Macintosh, 2025b). But as this description suggests, this initiative does not specifically link to place – with many (if not all) - the plants and animals which the residency project focuses on being displaced from their natural habitat for the purposes of tourism. But what the Residency Program does offer is a sustained relationship with people and place, in which recurring visits throughout the year support and inform the classroom-based inquiry.

In Summary: Supporting Place-based Education in the Context of the Manitoba K-12 Education System

While PBE can exist in the K-12 education system including in Manitoba, its breadth and depth is limited by human and structural barriers, four of which were detailed here. Professional learning, specifically with inquiry or project-based approaches offers a pedagogical starting point for this work, which can then be leveraged into curriculum content when teachers can come to see the value and opportunities to which place can afford them in meeting their vision for what teaching and learning could and should look like in their classrooms. Community-based and nonformal PBE programs that exist external to the K-12 system by in support of it can be both a catalyst and support. While not negating the very real issues of limited time, money, human resources, siloed disciplines and administrative support, there are ways for teachers to navigate systems to facilitate PBE.

The AR study showed that there were different ways to operationalize the ‘place’ within PBE. The search for purity in teaching can blind educators to dogmatic approaches which can undermine the actual intentions for learning. It is important for classroom teachers to see the value and opportunities which exist in their own communities as starting points but not be drawn into all-or-nothing approaches to PBE that demand consistent situated learning in the community if this is not feasible.

Place-based Education for Reconciliation

An aspect of PBE that deserves further exploration is how it aligns with efforts to address challenges of teaching in a settler-colonial state with ongoing legacies of genocide. Following the release of the *Final Report of the Truth and Reconciliation Commission* and the subsequent 94 Calls to Action (TRC, 2015), there has been a sustained focus in Manitoba on developing curriculum and providing professional development for in-service teachers, coupled with deepened efforts at the post-secondary level to increase the confidence and competency of K-12 teachers in bringing both Indigenous histories and pedagogies into classrooms. Throughout this dissertation there have been repeated links made between PBE and Indigenous knowledge’s and perspectives, which include a common alignment to teach in and with a local focus, outreach to local experts and community members, and the use of constructivist pedagogies that increase student voice and choice; there is also an increasing emphasis of settler-colonialism in PBE scholarship. To briefly reiterate, Winnipeg has the largest urban Indigenous population in

Canada, and Indigenous peoples are the fastest growing section of the population. They are also, statistically, over-represented in lower-socioeconomic groups, are most likely of any demographic to be chronically absent from school and have 4-year high school graduation rates between 30-40% lower than non-Indigenous students.

As discussed in Chapter 2, land-based education is an increasingly prominent approach to teaching and learning in Manitoba that has been identified as a pathway for addressing some of the challenges around attendance, engagement and culturally relevant content and pedagogy. For example, Seven Oaks School Division purchased seven acres of farmland within their divisional boundary to build a new transportation hub and conference centre, with the remaining space dedicated to a land-based learning centre. Now in its eighth year of operation, the Division states that the centre is,

Rooted in Indigenous ways of knowing and being, we foster reconciliation by braiding land-based education, ecological restoration, and community stewardship together for Seven Oaks School Division learners, educators, and the extended community (Seven Oaks School Division, 2025).

The centre includes a classroom, garden, restored wetland and tall-grass prairie, tree nursery, passive solar greenhouse, composting system, Indigenous interpretive sign system along a 3km pathway, a cultural learning area with tipi, sweat lodge, fire gathering, and medicinal gardens (Seven Oaks School Division, 2025). It hosts classes for multiple visits a year and is supported by three staff. It is a recurrent location for Seven Oaks School Division's cultural credit program, which facilitates ten days a year of culturally relevant programming for Indigenous students in the Division and regular visits from the Divisional Ojibway-language program. It is a wonderful location for students to have sustained and meaningful ecological and cultural learning. Two other metro-Winnipeg school divisions have announced plans to establish their own land-based learning centres over the next few years.

There are convergences, but importantly distinctions between land- and place-based education which were explored in Chapter 2. Critiques from land-based education have pushed PBE to be more intentional about situating any learning about place in a historical context with age-appropriate recognition of the ongoing logics of settler-colonialism playing out. Indigenous scholars such as Calderon (in Tuck, McCoy & McKenzie, 2014) have argued that PBE has the potential for centring Indigeneity and confronting educational forms of settler-colonialism, particularly Gruenewald's notion of critical PBE. I would argue that content and pedagogies that meaningfully engage with Indigenous histories and contemporary experiences and pedagogies that are culturally-sustaining (Chrona, 2022) are paramount in a place like Winnipeg, a city that Indigenous scholar Niigaan Sinclair (2024) calls "ground zero for reconciliation".

As I have written elsewhere with Anishinaabe scholar Melissa Twance (in press), there are misconceptions that lead teachers in Canada, particularly settler-educators, to appropriate and dilute land-based learning to decolonize and Indigenize their practice. Together, Melissa and I see this rush towards land-based education by non-Indigenous teachers as part of what Tuck and Yang (2012) refer to as a 'move to innocence', but one which ultimately continues the harms of

colonization. Land-based education, we argue, is a theory and practice that should be led by Indigenous peoples, or at the very least designed and facilitated between Indigenous and settler educators (Twance & Burton, in press). Understandably, many K-12 teachers in Winnipeg are looking for ways to meet the 94 Calls to Action and integrate content and pedagogies into their classrooms that meaningfully meet the moment. In this way, I argue that PBE is well placed to fit the needs of non-Indigenous K-12 teaching for reconciliation.

Poitras-Pratt and Bodnaresko (2023) identify ‘reconciliation education’ as guided by the *Final Report of the Truth and Reconciliation Commission* (2015) which stated,

Reconciliation must support Aboriginal peoples as they heal from the destructive legacies of colonization that have wreaked such havoc in their lives. But it must do even more.

Reconciliation must inspire Aboriginal and non-Aboriginal peoples to transform Canadian society so that our children and grandchildren can live together in dignity, peace, and prosperity on these lands we now share (p. 114).

They advocate for three elements that blend personal growth and professional action for teachers and are detailed in Table 5.8.

Table 5.8

Elements of Teaching for Reconciliation

Elements	Description
Adopting a critical approach	Locating and critiquing personal beliefs and norms, recognizing privileges, and engaging in sustained reflection and commitment to action.
Decolonizing and indigenizing	Interrelated processes that build on the critical stance. Decolonizing is a deeply personal act that begins with truth-telling and motivates “exposing settler colonial injustices to Indigenous and non-Indigenous people alike—knowing that schooling has been a major source of the mistruths” (pp. 120-121). Indigenizing involves working with local Indigenous peoples and organizations, beginning with Land and treaty agreements and shifting teaching practices towards Indigenous informed pedagogies (p. 121).
Creating reconciliatory practices in ethical spaces of relationality	The sustained commitment to learning, personal growth and acting in teaching practice requires humility, as a reversal of processes is often necessary, where the teacher becomes the learner. Students, families and communities hold educators to account for this work.

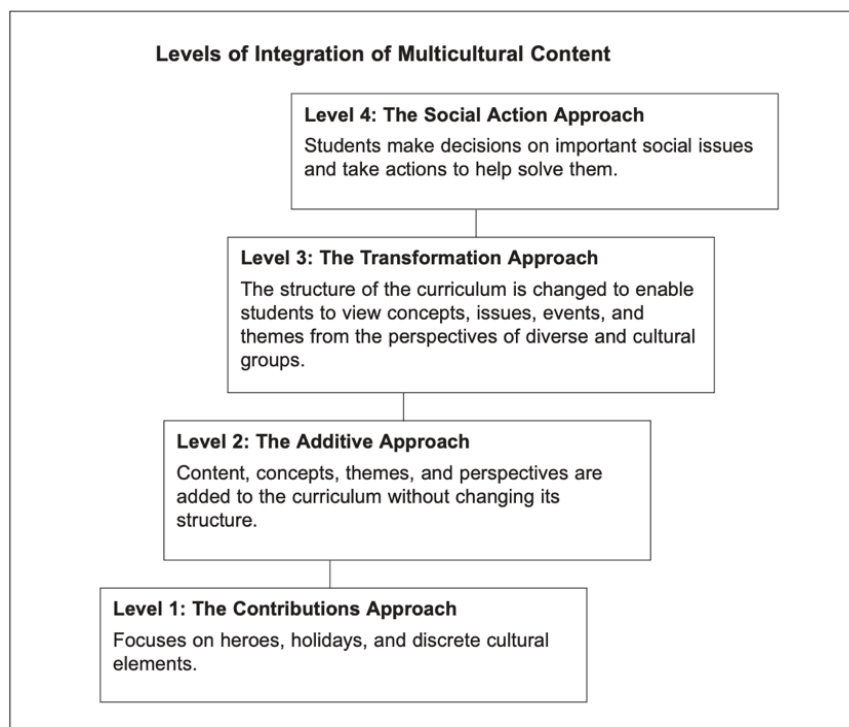
Note. Adapted from Poitras-Pratt & Bodnaresko (2023)

There are many elements of Poitras-Pratt and Bodnaresko's (2023) framework for teaching for reconciliation that align with PBE. Notably, there is the recognition that this work must begin with the self which subsequently animates professional decisions on what and how to teach. Like critical approaches to PBE, there are explicit links that can be made to settler-colonialism theory (Hugill, 2017; Wolfe, 2006), and the authors point to starting with Land and treaty agreements and working with Indigenous peoples as key aspects to the work. Poitras-Pratt and Bodnaresko (2023) argue that,

The work of Indigenizing is best started locally by focusing on the land underneath your feet and under the guidance and leadership of Indigenous peoples. We see much promise and potential in Indigenous ancestral traditions to help guide the ethical reform of current educational practices... Looking around, we see that the burden of efforts and (un)learning must shift to non-Indigenous Canadians" (p. 121).

What is important to identify from the teaching for reconciliation framework is the link to constructivist-based pedagogies, with content focused on Indigenous histories focused on place. There are natural connections between the Indigenous pedagogies in Poitras-Pratt and Bodnaresko's (2023) work and those articulated by Chrona (2022) in her book-length book on Indigenous informed pedagogies. Chrona (2022) identifies five aspects of Indigenous notions of place that should be embedded in her conceptualization of Indigenous informed pedagogies, namely: (1) multidimensional; (2) relationship-based; (3) land-based; (4) experiential; and (5) local. These are not checkboxes but should be viewed as elements that should be emphasized to different degrees based on the content and teacher background. When possible, they should be complimented by Indigenous peoples or Indigenous authored resources.

When providing examples of how Indigenous knowledges were present in their teaching, many survey informants indicated superficial or appreciative approaches. This is in stark contrast to the approaches advocated by Chrona (2022) and Poitras-Pratt and Bodnaresko (2023). A helpful theory that critiques the limitations of cultural appreciation is Banks (1993) 'Levels of Integration of Multicultural Content' (Figure 5.2). While this is a dated resource, I include it here as it is explicitly referenced in the Manitoba K-12 social studies curriculum documents (2004, 2005, 2006) and therefore still relevant to the Manitoba education context. Banks presented a typology of approaches for integrating non-dominant narratives into the classroom through a four-level approach.

Figure 5.2*Levels of Integration of Multiculturalism Content*

Note. See Banks (1993)

Drawing on the survey responses, there was an emphasis on teaching at Level 1, with people and sites used to highlight contributions to places, but doing so within the traditional structure of teaching and learning. Teachers were conceiving of and bringing place into their teaching and pedagogy for the purposes of cultural appreciation and supplementing classroom teaching content. This included bringing elders into the classroom to share stories of their upbringing and culture on Treaty 1 land and learning local Indigenous words, visiting and hearing from local cultural leaders or exploring unique cultural traditions, languages, arts and festivals, and utilizing culture for French language acquisition. Utilizing PBE as a pathway for teaching for reconciliation demands moving beyond superficial engagement with Indigenous knowledges (past and present Indigenous oriented epistemologies) and pedagogies (culturally relevant ways of teaching). What supports exist for shifting teacher practice through these levels and beyond superficial engagement in place? The examples from all three AR projects offer different pathways.

To preface the ways in which the AR participants engaged in teaching for reconciliation practice, I want to first spell out that each of them identified as ‘settler-Canadians’. As stated earlier in this dissertation, ‘settler’ differs from terms like ‘white’, ‘newcomer’, ‘non-Indigenous’

and ‘Canadian’ as it gives voice to history, relationships, structures and processes and the personal understanding of tensions and complicity which should guide thought and action (Lowman & Barker, 2015). Importantly to identify as a settler then, implies a critical and action-oriented stance. It is a definition that fits well with Poitras-Pratt and Bodnaresko’s (2023) ‘teaching for reconciliation’ framework, as it requires individual learning that feeds into a personal understanding of the implications and required actions for living and working in a settler-colonial state.

In Rebecca’s work, the blend of experiential, inquiry and outdoor education approaches were layered with Indigenizing practices. Many students prepared for their day of learning by opting to participate in a smudge led by the OE-LST. Rebecca was intentional about using Indigenous stories and introducing students to the history of the community with Indigenous peoples as the original inhabitants. Samantha perhaps went the furthest with her practice, partly due to the extensive time she allotted to the project, but also that the age of her students permitted such sustained examination. Her initial teaching included exploration of settler colonialism and genocide, leading into students creating their own personal land acknowledgements. Samantha’s reflections at the close of the project offer a powerful recognition of the potential for PBE for reconciliation, where she stated,

I think students learned to appreciate where they live. I don't think we typically think much about where we live and what it means to live where we live. And so, students talked a lot about or shared a lot. Students shared how they had developed a deep sense of gratitude for living in [school division area], for living on Treaty One, for First Nations who had kept the land and the water so clean.

The decision to start Samantha’s unit with territorial land acknowledgements was a crucial step towards illuminating this understanding for students. Mendoza (2008) writes that personal autobiographies and land acknowledgements,

Can be departure points for challenging the authority of abstract discourses as they braid personal and family histories with narratives of nationhood or globalization. These are not stories about the individual constructing a hybrid, cosmopolitan self; they are stories about the relationality between those who have come to inhabit the same place and their reciprocal vulnerability. These stories complicate inhabitants’ understandings of their coexistence in ways that traverse perceived frontiers of difference (p. 414).

Making local history and the present relationship between non-Indigenous students and Indigenous peoples the first step framed further learning and production of work from students and coloured their experiences exploring places of meaning to them.

To further understand what this means, it is worth looking at Somerville’s (2003, 2007, 2010) expansion of Pratt’s (1991) notion of the ‘contact zone’. The contact zone is a space in which peoples geographically and historically separated encounter each other (Somerville, 2003). Contact zones become “zones of possibilities and perils, characterized by unequal power relations as they are lived out across the globe today” (2003, p. 255). The contact zone is a place of ‘productive tension’ (2003, p. 265) but also “spaces of transformative potential” (2007, p.

155). Indeed, Julie specifically alluded to the positive tension that developed in her classroom as students were exposed to stories about conflict over resources between those with power, privilege and wealth and those who lived in sacrifice zones. They were challenged through the debate to negotiate these realities with each other, articulating and defending their claims.

A theory that fits the Canadian context for teaching and learning in the contact zone is Donald's (2009) work on 'Métissage' defined as, "an ongoing dialogue between cultures that are often at odds, such as First Nations and white settlers, anglophones and francophones, and the descendants of white settlers and more recent arrivals from other parts of the world" (in Mendoza, 2018, p. 414). This could look like non-Indigenous teachers understanding key aspects of settler-colonial theory and understanding of how to apply learning in, with and for places to bring this to life for students.

Drawing together the work of Banks (1993), Chrona (2022), Donald (2009), *Mamahtawisiwin* (Manitoba Education and Early Childhood Learning, 2022) Poitras-Pratt & Bodnaresko (2023), Pratt (1992) and findings from the two studies in this dissertation it is possible to develop a PBE for reconciliation framework detailed in Table 5.9.

Table 5.9

Place-based Education for Reconciliation Framework

Criteria	Detail	Informed By
Adopting a critical personal and professional stance	• Personal learning on both the true histories and contemporary realities of Indigenous peoples across Canada and specifically in the local context. • Professional learning on Indigenous pedagogies and identifying opportunities to decolonize/Indigenize what is taught and how it is taught in the classroom.	Donald (2009); Poitras-Pratt & Bodnaresko (2023)
Teaching and learning about place history and present context	• Identification of curriculum connections to local histories or contemporary issues through direct instruction or student inquiry. • Where possible this learning invites interdisciplinary content.	Chrona (2022); Poitras-Pratt & Bodnaresko, 2023); <i>Mamahtawisiwin</i> (2022); Pratt (1992)

Teaching and learning in places	• Intentional visits and explorations of place histories and contemporary stories that are scaffolded before and after by classroom learning.	Banks (1993); Chrona (2022); Pratt (1992)
Making space for Indigenous knowledge	• Settler educators connect with experts and organizations to guide their instructional design and experiential learning. • Settler educators make space for Indigenous voices, either living or via video or text media.	Banks (1993); Chrona (2022); Donald (2009); <i>Mamahtawisiwin</i> (2022)
Student choice and voice	• Balancing direct instruction with student inquiry into questions that connect to both curriculum, place and student interest. • Providing opportunities for students to share their learning with their peers, families and the community.	Banks (1993); Chrona (2022) <i>Mamahtawisiwin</i> (2022)

What this framework attempts to do is provide settler educators with a pathway for understanding the need for K-12 public education to meaningfully understand and respond to the Truth and Reconciliation's Calls to Action (2015), shift pedagogies to ones that align with Indigenous ways of knowing, and appropriately and without coopting Indigenous knowledge, work to support all students. With the expectation of each K-12 teacher in Manitoba being trained on how to teach about treaties in the classroom, additional guidance from the *Mamahtawisiwin* policy framework (Manitoba Education and Early Childhood Learning, 2022), and an updated K-10 social studies curriculum document with revised SLOs due for piloting in September 2026, there is ample opportunity for settler-educators to utilize PBE as an important vehicle to teaching for reconciliation in future years in the Manitoba K-12 education system.

As I write these words it is the week before National Day for Truth and Reconciliation, a day which has been established as a 'holiday' by the Province of Manitoba every September 30th. In Winnipeg a Healing Walk is organized from The Forks National Historical Site at the convergence of the Red and Assiniboine Rivers to the Convention Centre where a Pow Wow is held. In Manitoba K-12 schools, September typically involves classroom teaching and assemblies that focus on the genocide against Indigenous peoples, but increasingly on stories of survival and resilience. Several Indigenous led organizations organizing events, particularly the National Centre for Truth and Reconciliation running webinars and sharing teaching resources. But today is also a day where students and staff at the University of Winnipeg have been informed that a residential school denialist will be arriving uninvited on campus to make false

claims about the intentions, structures and impacts of residential schools on Indigenous peoples³. Carleton and Heath Justice (2021) have theorized that,

Residential school denialists begin and end with a firm belief in innate Indigenous deficiency and settler innocence, often rooted in Christian triumphalism... [and] is a strategy used to manipulate and undermine the realities of Indigenous Peoples' painful experiences under Canadian colonialism to protect the status quo (para. 7)

which they engage with to critique the use of the term genocide, false intentions and actions of residential school policy makers and practitioners. Without regurgitating the claims that this individual makes and their reasons for visiting the University of Winnipeg campus at such a challenging time of year for Indigenous peoples, residential denialism beliefs are still present, attract an audience, and demand sustained action from the K-12 system. As the late Murray Sinclair is often quoted, "Education got us into this mess, and education is the key to getting us out of it" (Sinclair, 2024, p. 4).

Discussion Summary

Learning which connects curriculum content to the community and students' lives has the potential to make learning more interesting and meaningful to students' lives in the immediate and long term. This matters when student attendance and engagement is declining. In the last thirty years, PBE has evolved from an approach to teaching and learning which focused on community revitalization and economic (re)development to one in which grounds learning in understandings of settler-colonialism and social justice. There is more work to do in both supporting Indigenous students in the Manitoba K-12 public education system, and opportunities for critical perspectives through PBE to be brought into the classroom. Gruenewald's (2003b) stated over 20 years ago of the rich potential in reenlisting teachers and students in "first-hand experience of local life and in the political process of understanding and shaping what happens here" (p. 620), by "learning to listen to what places are telling us - and to respond as informed, engaged citizens" (p. 645). This perspective still resonates today, and the three AR participants offered strong examples on how this might happen.

Yet the Manitoba K-12 public education system is struggling. It is currently facing declining student attendance, challenges with student engagement, and not excluded from global teacher shortages and more so teacher retention. While these challenges were present before the Covid-19 pandemic, they have been accelerated in the last five years. In Manitoba there are similarities between the education and healthcare professions. Both professions are publicly funded (representing a high percentage of provincial spending budgets) and work on the front lines with the public. Both have also faced austerity funding from the province, both are struggling to attract and keep young people in the profession, and both are working directly with individuals and communities struggling with poverty, intergenerational trauma, addictions and insecurity (Hajer, et al., 2025). It is beyond the boundaries of this dissertation to explore the links

³ Walking across campus later that afternoon there was a large crowd, mostly of Indigenous peoples, surrounding the denialist and drowning them out with drums and singing.

between healthcare and education, but without adequate funding and human resources these professions may continue to drown under the wider challenges facing many communities in Manitoba.

In short, PBE will not in of itself resolve the challenges of the K-12 Manitoba public education system and the wider social and environmental context in which it is embedded. But the findings of this study suggest that it can meaningfully meet the moment in threading the needle of curriculum, student and teacher engagement and Indigenous reconciliation. The concluding chapter of this dissertation will first review the limitations of this study including aspects of validity outlined in Chapter 3. It will then speak to questions that the research findings provoke and avenues for further research and service that the recommendations point to.

Validity and Limitations

This section will review the validity and limitations for both the survey questionnaire and AR for this dissertation. In brief, the most significant limitations of both were the low number of authentic informant responses to the survey questionnaire and the small number of AR participants, which means that drawing definitive answers to the study questions and the current state of PBE in the metro-Winnipeg K-12 education system is limited.

Reflection on Survey Questionnaire Validity and Limitations

The most significant limitation in this study was the survey response rate. Steps were taken to mitigate this limitation. Distribution through the school divisions was deemed from the outset as having the potential to reach the greatest number of K-12 teachers. One Division agreed to distribute the survey link twice, one Division posted the survey link to a ‘bulletin board’ and one Division distributed the survey link once. Two of the three Divisions who agreed to distribute the survey link were responsible for 77% of responses; the other Division who agreed to distribute did not produce any survey responses. The remaining survey responses from three Divisions who did not agree to distribute the survey accounted for the remaining 23% of completed responses, most of these appear to have come shortly after the survey link was posted to my professional LinkedIn account. Dissemination through LinkedIn led to a notable jump in response rates, but also bot responses, which were subsequently filtered out.

Other strategies used to mitigate low survey response rates included a brief preamble which preceded and framed informant participation and limiting the length of the survey (Braun et al., 2021; Valli, 2017). While Hudson and Miller (1997) were writing at a time before emailed surveys, some of their suggestions hold for a survey that is emailed as well as mailed. These suggestions which were included in the Informed Consent front matter were:

- Stressing the importance and benefits of the questionnaire in the Informed Consent.
- Features of the questionnaire itself, such as ease of completion, estimated completion time, sensitivity of questions.
- Invitation for a follow up interview.

In addition, there was tacit encouragement to participate from a third party, namely superintendents who distributed the survey link. There was also a financial incentive of a prize draw, where informants who completed the survey could enter a draw for eight \$50.00 gift cards. The form to enter this draw was included via hyperlink at the close of the survey to an external site. It was made clear to informants that this will remove any connections between their survey responses and their name and contact information.

Braun and Clarke (2013) argue that there is no rule for sample size in qualitative research, but the goal should be to achieve ‘saturation’, defined as, “the point when additional data fails to generate new information” (p. 55), which at this point, the survey cannot claim to do. The thirty informant responses fell far short of expectations and saturation. Nevertheless, the open-ended survey questions (Braun & Clarke, 2013) did provide some interesting and valuable data that I was able to generalize themes (Cohen, Mannion & Morrison, 2005; Valli, 2017) and utilizing Taylor and Bogdan’s (1998) 11-Step Data Analysis Framework link the survey questionnaire findings to the AR study findings. Owing to the limited survey questionnaire responses the conclusiveness of this data was tempered in Chapter 4 and 5 but emergent themes from the survey did correspond with several findings from the AR study.

A final note on the survey is that the challenges with distributing and recruiting survey informants has been valuable in terms of planning my future research program. While I am not averse to using survey questionnaires again in the future (I have used survey questionnaires twice with Faculty of Education students, and both times had very high rates of completion), it is clear to me that school divisions are reluctant to distribute surveys such as this to their staff. It is possible that greater support and effective use of survey within school divisions would come from school division commissioned research projects.

Reflection on Action Research Validity and Limitations

The intention of the survey questionnaire was to firstly generate a foundational understanding of the role of PBE, use of PBE and draw conclusions regarding strengths and limitations of current PBE practice in the metro-Winnipeg region. Originally, the survey was conceived as a tool for AR recruitment. As survey distribution was delayed to the fall, I understood that I needed to be proactive in AR recruitment and used convenience sampling instead (Tomal, 2010). Convenience sampling meant that those selected to participate in the study were known to me, which accelerated the relationship and trust building that strengthens AR.

The feedback expressed by participants on the value of AR poses a limitation for this study: was it the content and pedagogy of PBE that led to participants speaking highly of its impacts? Was it the specific mode of action research (Reciprocal-Outsider) (Herr & Anderson, 2012)) whereby I was more involved in the design and facilitation with participants than as an ‘Outsider-Observer’? Or was it the cycles of planning, action and reflection through the Cogenerative Model for PBE (Greenwood & Levin, 2007) that provided a more structured approach to teaching for participants? Was there something particular about these teachers, who

cared deeply about evolving their teaching practice and meeting the needs of their students and the community? As stated earlier in this chapter, the contextual nature of PBE teaching aligns very well with the research method of action research.

The two metrics of assessing validity in the AR study are internal and external validity. Internal validity establishes whether research passes a threshold in which the tool of measurement effectively measures what the researcher claims it will do (Punch, 2016). External validity is concerned with whether the research findings are truthfully represented by the researcher and can be reliably replicated with similar results (Glicken, 2003). In Chapter 3, Herr and Anderson's (2012) post-study validity checklist for AR was introduced as an aspirational goal for the study. It is posted below (Table 5.10) and offers an opportunity to reflect on the study.

Table 5.10

Post Study: Validity in Action Research Goals

Goals of Action Research	Quality / Validity Criteria	Definition	Criteria Met?
Generation of new knowledge	Dialogic and process validity	Approval through peer-review of the quality of research and findings	TBC
Achievement of action-oriented outcomes	Outcome validity	Resolution of the problem that led to the study	Yes
Education of both researcher and participants	Catalytic validity	Not only the participants, but the researcher themselves must be open to reorienting their view of reality as well as their view of their role; all involved should deepen their understanding of the social reality under study and should be moved to some action to change it (or reaffirm it).	Yes
Results that are relevant to the local setting	Democratic validity	Extent to which research is done in collaboration with all parties who have a stake in the problem under investigation Local validity: problems emerge from a particular context and in which solutions are appropriate to that context	Yes

Sound and appropriate research methodology	Process validity	Extent that problems are framed and solved in a manner that permits ongoing learning of the individual or system	Yes
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Note. See Herr & Anderson (2012, p. 31).

In my view, this study met all but one of the validity criteria from Table 5.10. The study provided answers to my research questions (outcome validity); new learning for myself and the AR participants emerged, some of which confirmed prior beliefs, whereas other learning changed beliefs, or raised more questions that needed further research (catalytic validity); there was significant collaboration and tight alignment to Greenwood and Levin's (2007) cogenerative model for AR, with important localized findings (democratic validity); and, that this study provided increased confidence and competency for both myself as researcher and the research participants on PBE (process validity). The last criteria, dialogic and process validity, requires peer review of the study to be confirmed. As this study is part of a dissertation which requires critique from a committee of my peers, this criterion cannot yet be established. Further dialogic and process validity can be acquired through the peer-reviewed publication of this study.

I feel strongly that I was able to maintain ethical responsibility throughout this study. This began with securing permission from school divisions and then school leaders from each of the respective research participants' schools regarding the study, which included an abbreviated summary of the research project steps and goals. Ethical responsibility continued through disciplined confidentiality throughout the research process and written findings. The exception to this was when one of my participants waived their confidentiality so that they could co-present our collaboration at a provincial teaching conference.

From the outset, the biggest potential limitation was seen as participant recruitment and retainment, with the latter jeopardizing the whole research project (and dissertation). Consent was maintained throughout this project. Rather than the political nature of CPBE in what Julie decided to focus her PBE unit on being a concern for continued collaboration (Herr & Anderson, 2012), our collaboration was seen as a benefit by Julie for continued consent. All three participants that agreed to start the research study remained through to the close; I view the strong support for the process and products of AR at the close of the study in member checking is evidence of maintaining trust and willingness to provide ongoing consent (Stringer, 2008). Lastly, this study did not deviate from the proposal submitted to Lakehead University and the University of Winnipeg Research Ethics Board. No minors were interviewed for this study, but student experiences were documented through participant statements.

Action research is recognized as setting up a trade-off: on the one hand, generalizations about the research findings are limited, due to the localized data collection; conversely, the focus on a small number of participants through sustained study brings depth of understanding and immediate learning for the research participant. Referring to Herr and Anderson's (2012)

comments that good action research provides insight into a “local reality that the much thinner, but generalizable data of most quantitative research could not provide” (p. 98), in Chapter 4 and 5 of this dissertation I attempted to provide nuance for the study findings, couch them within the wider Manitoba K-12 education system, and draw localized conclusions. My initial research questions have been answered, research participants expressed new learning and benefits from the process, and I close the project with a deeper understanding of the AR process and next steps for supporting PBE scholarship in Manitoba. In the next section I will briefly speak to areas for further research.

Further Research

“Naturally,” writes Bruce (in Rowell, et al., 2017), “action research leads to more questions and challenges to address, and rather than seeing this as a weakness of the impact, we might instead consider assessing these new and deeper questions as a sign of success in revealing hidden or complex challenges” (p. 696). Across the two years from the germination of this research plan through to the final stages of dissertation, several next steps for professional learning and research emerged. In the concluding pages of this chapter, I will briefly identify three: (1) the role of PBE and other related pedagogies in actively resisting AI in the K-12 education system; (2) the possibilities of a PBE approach to climate change education; (3) and, the role of post-secondary scholarship in supporting a public K-12 system in crisis.

Resisting Artificial Intelligence

Earlier in this chapter, I briefly identified the role of PBE in mitigating the destructive presence of artificial intelligence, particularly generative A.I. in the K-12 education system. In a recent article for Rethinking School’s online magazine, Fernandez (2026) identifies argues why she will not embrace AI in the classroom. Stating, that her core mission as a K-12 teacher includes, “teaching students how to (actually) read and (actually) think about and discuss what they read; to (actually) analyze rhetoric and literature; to (actually) conduct (their own) research; and to express (their original) thoughts in writing” (para. 32), she gets to the core of what all teachers, particularly those who teach and/or value the humanities, as actually keeping the human experience at the centre. Rather than embracing the siren’s call of technology to ‘save time’, ‘personalize learning’ and ‘prepare students’ (Fernandez, 2026), I wish to recentre human and environmental structures and focus on the K-12 public education system.

The work of Anderson (2022) and Gavin (2023) was inspirational in establishing the link between content and pedagogies that prioritize human and environmental contact and the active role that artificial intelligence has in widening the gulf between individuals, communities and the planet which sustains us. The incredible amounts of energy and water which A.I. demands (Zewe, 2025) coupled with stark warnings from engineers who understand deeply the horrific possibilities which could emerge from artificial intelligence programs developing independent consciousness and ability to self-preserve (Meinke et al., 2024) only serve to compound the worry of K-12 teachers uncritically accepting the need for AI in their classrooms.

The core aims of PBE, particularly the primacy it directs towards human contact with people and the natural environment in communities and places offers a vibrant counterpoint to increasing reliance on technology and artificial intelligence. It decreases the reliance on screentime, offers meaningful curriculum connections between teachers, students and the places in which they inhabit, and sets up opportunities for inquiry into the critical questions facing young people and the communities in which they live (and will likely live for the rest of their lives). There are important links between students spending time outdoors and spending more classroom time considering the environment and the current climate crisis, as we will now see.

Place-based Climate Change Education

In the first chapter of this dissertation two issues were identified as topics to which PBE could offer an effective framework for drawing into the K-12 classroom: Indigenous reconciliation and climate change. Earlier in this chapter, evidence from this study was used to claim that PBE is a powerful tool for settler-educators to use for interpreting and organizing curriculum outcomes, adopting Indigenous informed pedagogies, and connecting meaningfully with all students around questions of what it means to live on treaty land. Across the survey and action research components of this dissertation there was no attention to climate change education. Within the timeline of writing this chapter, a series of research findings and policy documents on climate change education (CCE) have been published that have direct implications on the Canadian K-12 system.

First were two surveys from June 2025, one from Carleton University based Re:Climate found that despite political instability from the United States and concerns over affordability, over two-thirds of Canadians remain concerned or very concerned about climate change and see it as a serious or very serious threat (Hatch et al., 2025). This survey established the continued belief from Canadians that climate change is real, human caused, and requiring a societal response. Later that same week, research from Learning for Sustainable Futures (LSF), an environmental education organization based out of Toronto, reinforced these findings from Re:Climate, but coupled this with survey results indicating that 62% of Canadians support CCE being a high priority in the Canadian K-12 education system (Learning for Sustainable Futures, 2025). Yet the desires of the public were not being matched by what is happening in Canadian K-12 classrooms, particularly in Manitoba. In the 2025 LSF survey, 47% of youth in Manitoba reported that climate change is rarely or never discussed in schools, and an increasing number of Canadian teachers feel prepared to teach climate change in their classrooms. In Manitoba, the findings were starker: teachers here report the lowest provincial average for teaching climate change content across each of seven categories including climate change science, climate change solutions, coping with climate emotions and grappling with disinformation in the media (Learning for Sustainable Futures, 2025).

In October 2025, the Province of Manitoba released *Manitoba's Pathway to Net Zero* (2025). This policy document is the latest environmental strategy from the province to, “reduce greenhouse gas emissions, strengthen communities, and build a resilient, low-carbon economy”

(Government of Manitoba, 2025). The document contains principles, pathways and action plans for the Province of Manitoba to reach ‘net zero’ by 2035. While much policy focuses on partnerships with federal, municipal and Indigenous nations on infrastructure projects, tucked away on page 15 immediately after a policy which focuses on “innovation and labour market plan” as policy 3.2 is, “Develop curriculum on climate awareness and action to prepare Manitoba’s students for the opportunities and challenges of a changing climate”. Coupled with this policy document was the secondment of a K-12 teacher to lead the development of a CCE curriculum.

Lastly was the release of the Government of Canada’s National Framework for Environmental Learning (Government of Canada, 2025), the result of a collaboration between Environment and Climate Change Canada, and dozens of experts from academia and national environmental non-for-profit organizations that focused on environmental education. This document sets up a policy framework with five foci: (1) expanding educator capacity; (2) creating flourishing learning spaces; (3) developing data and research; (4) growing green communities; and (5) strengthening green skills. As education falls under the mandate of provincial governments, the federal framework is optional and acts as a catalyst for Ministries of Education across Canada to develop policies and practices for K-12 education. At the time of writing there are plans for follow up working meetings to discuss how this federal plan might be implemented provincially.

I agree with Thornton, Burgh and Graham (2024) that “education has misplaced place” and that centring PBE in climate change education theory and practice should be prioritized, as “students need to experience a sense of place to develop their identity as citizens who are ecologically interdependent – a mode of associated living necessary for sustainable living” (p. 85). To do this will need a revision and/or reinterpretation of curriculum documents. Porter (2024) argues that Canadian identity and relationship with land and place in Canadian curriculum exists through three dominant narratives: survival in the Northern wilderness, dominion over nature and the West as a promised land. These narratives are distinct but mutually reinforce each other. The territory of Canada is vast, unforgiving and dominated by extreme weather, but human will and ingenuity (read: white, male, capitalist) can tame and control the land and repurpose it for extraction, prosperity and progress.

Soja’s (2013) notion of ‘spatial justice’ is relevant here. This theory calls for the investigation of the lived histories of a place, and “exploring how social landscapes have the power to include and exclude while organizing social and material relationships in unjust ways” (Seawright & Hayes, p. 3). Spatial justice is concerned with righting the wrongs of the past that continue to act on the present. What is different about climate change is that it operates as an injustice which will be perpetrated on people of the future through a lack of action in the present. Whereas we cannot know if groups and government will enact socially unjust policies on future peoples, we can use scientific research by climatologists that has been interpreted by social scientists and beyond reasonable doubt recognize that if actions on mitigation and adaptation to

climate change do not happen now, then we can expect these impacts on people and communities.

What CCE asks for is teaching and learning that includes a historical scientific and social understanding of the causes and effects, and the supporting of student actions which reduce carbon emissions coupled with a recognition that everyone will need to adapt to a warmer planet with more violent weather. Both mitigation and adaptation strategies will require asking young people and the communities in which they reside to collectively change their way of life and vote for governments which will support this transition.

But as environmental philosopher Timothy Morton (2013) has claimed, climate change is a ‘hyperobject’: a reality so immense that it crosses time and space to surpass conceptual understanding and action. Despite a strong outdoor education focus in Rebecca’s project and environmental racism being central to Julie’s project, there was surprisingly a distinct lack of topic focus on environment in the survey informant responses. Education for sustainable development (ESD), until recently the primary framework from which Manitoba physical and health education, science and social studies was developed, was predominately concerned with individualizing responsibility and guiding students away from system change, and therefore students could immediately see the impacts of their work. CCE recognizes that not only is the weight of responsibility for climate change on western industrialized nations, but it will require economic system change as well as education system change (Klein, 2014; Stein, 2023).

It is quite possible that the advocates of CCE are asking the public K-12 education system and pre-service teacher education programs to make changes that are without precedent as part of the wholesale reconceptualization of how we live. The enormity of the challenge and the delayed gratification of impact from climate change education means that it is a difficult topic to generate participation in. I share the view of many climate change educators who see no other reasonable option, but that a pragmatic response is required.

A place-based focus for CCE could provide localized approaches to CCE which both make the content more concrete, accessible and manageable for K-12 teachers. Theobald (1997) argued that “beginning at the elementary level, students must be socialized into the practice and habit of researching and deliberating answers to the questions that vex their communities *at the moment*” (his emphasis) (p. 134) and climate change is undoubtedly having increasing impacts on Manitoba youth and communities. Place attachment has been linked to pro-environmental behaviors (Vaskr & Korbin, 2001) and so a strategy may be to link the principles of CCE (such as those advocated by Windschitl (2023)) and adopting a localized approach to the science of climate change and place-based responses to mitigation of carbon emissions and adaptation to the incoming changes.

Supporting the Manitoba K-12 Public Education System

How to do this? Whether focusing on PBE, A.I. or CCE in the Manitoba K-12 education system, I would argue that a strong connection between scholarship and K-12 practice is necessary. In *Scholarship Reconsidered*, Boyer (2015) makes the argument that academia has

deviated from its original focus on supporting students and engaging meaningfully in questions and challenges of the community, instead towards research and publishing. Boyer claimed that the work of an academic should consider four distinct yet mutually supportive pillars: discovery, integration, application and teaching. Discovery was the work of original research, but he argued, decisions around discovery needed to consider ‘integration’ (What do I do with these findings?), ‘application’ (How can this research be applied to or be of use to people and communities?), and ‘teaching’ (How can this research be effectively communicated to students?). As I have argued elsewhere (Burton, in press) this argument is only strengthened when considering the paradigm shift that climate change demands, and the rapid increase in attention to A.I. in the K-12 system (whether intentionally incorporated by teachers, or as a plagiarism tool by students) coupled with the relatively lengthy timeline required for publishing.

The Manitoba K-12 education system is, by several metrics, one in crisis. The reason that this dissertation chapter spent such time outlining the context to which application of PBE could or should fit, was because it is important to consider the ‘integration’ and ‘application’ of research to the current realities of the system. In the last three years I have tried to maintain a focus on integration and application for research. This has included presentations in and collaborations with urban and rural schools on PBE and CCE, facilitating a professional learning group with high school teachers, and was a motivating factor for using the AR research method in this dissertation. In recent months I have applied for grants to take a closer look at the forthcoming draft K-10 social studies curriculum documents, which similarly to my past curriculum document analysis on CCE, helped frame my work with K-12 teachers. A longer-term vision is inspired by the community-based and nonformal organizations and programs, particularly Campus Calgary, where teachers can access professional learning and access to people and places to deepen their learning experientially in places and/or climate change learning.

Chapter Summary

This chapter discussed the implications of the survey and AR findings from Chapter 4. It approached this analysis by breaking the chapter into four sections. In the first section four prominent challenges to K-12 public education, specifically in Manitoba, were identified, with PBE highlighted as an intervention which could respond to challenges with student attendance, engagement, accountability and teacher recruitment and retention. From here, the second section identified four recommendations for supporting PBE which included: strengthening inquiry and project-based approaches to teaching that ground much PBE; moving towards centring place in teaching over supplementary or superficial approaches; how human and structural barriers can be mitigated or adapted to within the school system; and lastly the potential role of community-based or nonformal educational organizations and programs for collaborating with K-12 teachers. PBE was offered as a potentially powerful pathway for settler-educators to design and facilitate learning in ways that meet the Truth and Reconciliation’s Calls to Action.

The third section highlighted limitations of the survey and AR research, as well as how I determined validity for the study was met. The fourth and final section of the chapter pointed to further research and practice that PBE can help inform. If teaching for reconciliation was identified as a current PBE practice that can be scaled, then there is certainly much more work to be done in utilizing PBE for climate change education, with sustainability education in general a minor focus for teachers in the survey and AR. Between the start of this dissertation and the time of writing, generative A.I. has been unleashed on the education system. Although some of us may wish for a return to a time before such a force was having such a negative impact on our culture, politics, environment, and practices of teaching and learning, it is unreasonable to do so. Instead, K-12 and post-secondary educators need to seek ways to design policy and educational experiences that take a critical approach and live alongside (but maybe not with), A.I.

With all this there is a vital role for academia and pre-service education. The recent and likely increased disruption to K-12 education due to internal (for example: curriculum, policy, teacher recruitment and retention) and external factors (for example: climate change, culture, politics, technology) there is a vital role for research-informed theory and practice. A central reason that this dissertation ventured outside the narrow boundaries of PBE in Chapter 2 to identify other education pedagogies that converged and diverged with PBE, and then paid significant attention to the current state of the Manitoba K-12 system was to map out the possibilities for PBE, but also the challenges which need to be overcome. A reconstruction of what and how we live and learn here is needed; PBE offers a powerful tool and vision for bringing it to life.

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Appendix

Appendix 1.0

Survey Questions

Demographic Questions (1-5)	1. Which school division do you currently work in? a. Louis Riel b. Pembina Trails c. River East Transcona d. St. James Assiniboia e. Seven Oaks f. Winnipeg 2. What grade(s) do you currently teach? (Click all that apply) a. Kindergarten b. 1 c. 2 d. 3 e. 4 f. 5 g. 6 h. 7 i. 8 j. 9 k. 10 l. 11 m. 12 3. Please select teachable subjects that you most closely identify with: a. Generalist (I identify with four or more subjects) b. English c. Mathematics d. Social Studies e. Science f. Art g. Music h. Health i. Physical Education j. Drama k. Food and Nutrition l. Industrial Arts
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	m. Computer Sciences n. Other (Please detail) 4. How many years of full-time classroom experience do you have? a. Less than one b. 1-5 c. 6-10 d. 11-15 e. 16-20 f. 21+ 5. Identify your current employment status with the school division. a. Part-Time (Term) b. Full-Time (Term) c. Part-Time (Permanent Contract) d. Full-Time (Permanent Contract)
General Education Questions (6-9)	6. I entered the teaching profession because... 7. In my view, the purpose of education is... 8. A typical teaching unit in my classroom... 9. Are there any theories of education or teaching practices that guide your planning and instruction?
Place-Based Education Questions (10-17)	10. Have you used people from the community as resources in your teaching? For example: non-teacher content experts, business owners, or those from community organizations. If so, can you share who these people were, and how were they used? 11. Have you visited places in the community in your teaching? For example: natural spaces, businesses or organizations, educational sites. If so, can you share where you visited, and how these places were used? 12. When planning for people or places in mind, were they used as foundational (as a starting point for lessons or learning) or supplementary (to enhance ongoing lessons or learning), or unrelated (a one-off visit)? Please explain. 13. If people and places from the community were used in your teaching, in what ways (if at all) were they connected to the Manitoba curriculum? Can you name specific subjects or units? 14. Have you designed and facilitated a lesson, lessons, or units that connect with students' understanding of their community or neighbourhood? If so, can you share how?

	15. Please explain, if at all, what role issues of culture, economy, environment, history, or politics of the neighborhood or community have in your teaching? 16. Can you identify any barriers (time, money, curriculum, support, interest, school location, etc.) to including people, places or community issues in your lesson planning? 17. Can you identify any supports (time, money, curriculum, support, school location, etc.) that make bringing people, places or community issues in your lesson planning easier?
Closing Questions (Open Ended)	18. Do you have interest in bringing people, places and issues in the community into your lesson planning? 19. If yes, please share any ideas that you may have. 20. Is there anything else you would like to add?