

INTRICATE WATERS: A CRITICAL LITERATURE REVIEW OF PLACE-BASED
EDUCATION

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By

GEOFF WEBBER

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Abstract

This Masters thesis introduces and problematizes place-based education for practitioners and scholars. A critical literature review explores the foundations of place-based education to reveal key concepts, debates, and unresolved issues in the field. Engaging the metaphor of a watershed, literature representative of outdoor education, non-formal education, experiential learning, critical pedagogies, place-based education and land-based education literature is synthesized. Place-based education literature is analyzed and ordered chronologically and thematically to conceptualize the field. Key findings consider the main confluences within place-based education literature including: social and ecological analysis, curricular implications, the effect of linguistic and critical frameworks, connections to Indigenous education as well as directions for future scholarship.

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Chapter 1: Introduction

Introduction

The experience and concept of place contextualizes all forms of teaching and learning. Despite the significance of place, understanding the main issues of place-based education (PBE) can be mystifying. Subsequently, the question becomes “to what aspects of our places will we pay attention” (Gruenewald, 2003, p. 645)? Over a decade after this question appeared in the literature detailing PBE, scholars and teachers have examined many aspects of place for its impact upon education. In order to reflect upon the foundational aspects of PBE, this research will conduct a critical literature review. In observing the growing pockets of popularity of PBE, a critical literature review is needed to understand its chronological and thematic bases. Bases are defined as the underlying supports or foundations for an idea, argument, or process. The motivation for writing a critical literature review of PBE emerged from my own unanswered questions, but the process has also revealed my own unquestioned answers (Wilson, 2008, p. 6).

In writing a critical literature review, I acknowledge how my pre-conceived ideas and concepts influence the research findings. And while the process of research has challenged my perspectives, sharing my background highlights my positionality in relation to the concept of PBE and showcases how my position can both limit and enhance my approach. I grew up in an established suburban neighbourhood in Calgary, Canada. Like other boys who come from middle-class, white families, I was affirmed in the position of accessing the outdoors as a basis for identity-formation and physical development. At a young age, I spent time in wilderness settings and I have been deeply impacted by those experiences. Looking back I was fortunate to have family, camps, and

school programs help me foster a connection to the natural world. While my experiences in nature were positive, I nourished the concept of wilderness as a universally accessible outlet for my personal development. I assumed that everyone had equal access to wilderness settings, and that with similar experiences and skill sets, would also come to appreciate wild places. As Edward Abbey (1968) wrote, “the romantic view, while not the whole of truth, is a necessary part of the whole truth” (p. 209). Conceptualizations of place at this time were also deeply felt as interior spaces – imaginative, emotive, and creative realms of inquiry exploring my own identity. My attraction to wild places reflected an interior reality that identified with dynamics of leadership, physical challenge, reflection, and friendship. My backcountry experiences also helped me to value language, metaphor, and poetry as meaningful ways of to express myself in relation to the natural world.

My experiences took me to an undergraduate degree in History at the University of Alberta. At this time, I was also improving my craft as a canoeist. I began to guide and teach canoeing during the summer months. My interest in exploring wilderness settings was also contextualized by working with youth in adventure camp settings. Many of the skills I learned in backcountry situations helped me when I later worked with an outreach team that aimed to prevent homelessness. This meant working alongside the marginally housed, homeless, and vulnerable peoples in Calgary. I visited people in shelters, back alleyways, motel rooms, basement suites, and apartment complexes. I shared meals, went shopping, cleaned, moved, and dialogued with people who had a very different perspective of place than I did. I began to sense that, unlike the ethos of outdoor education, I was unable to create meaningful change for many of the people I tried to

help despite my intentions. This experience challenged my identity and narrative. My place was contested because I could not keep my passion for the outdoors separate from my questions of social disparity. I held two images of society: one portrayed crumbling asphalt while the other depicted clean water. It was problematic for me that I did not question the former in the pursuit of the latter. I took an intuitive step to help make sense of these experiences. I applied to the Department of Educational Foundations at the University of Saskatchewan. The department's emphasis on social and ecological justice issues seemed like an access point into some of the themes of my story. Upon entering the college, my involvement in place-based course work, instruction, and research helped to provide training towards this thesis.

Purpose

This research emerged from questions regarding the foundations of PBE. The purpose of this research is to synthesize and conceptualize PBE literature in order to serve scholars and practitioners who are interested in and/or using place-based methods. Adopting a philosophic inquiry approach helped me to conceptualize a survey of influential education traditions informing PBE literature (Burbules & Warnick, 2006). The initial goal of this research was to show how place-based education had been formed (and to what extent) from the streams of outdoor education, non-formal education, experiential learning, critical pedagogies, and land-based education. PBE is largely represented as ahistorical or as a new phenomenon, so practitioners of PBE would benefit from a review of its relationships to the concepts, methods, and knowledge of the aforementioned educational streams. As I conducted the research, I realized that a critical literature review of PBE yielded alternative questions than I originally proposed. In

addition to synthesizing historical and philosophical antecedents of PBE, a critical literature review pointed to the main issues of the field, gaps in the literature, as well as directions for future scholarship.

Place-based education: The need for review

Torraco (2005) stated that a literature review addresses new or emerging topics, “that would benefit from a holistic conceptualization and synthesis of the literature to date” (p. 357). Such a conceptualization and synthesis is needed for PBE because it contains key concepts and debates that draw from a range of disciplines and traditions. Scholars have identified the major contributors and evolution of place-based education literature (Smith & Gruenewald, 2008; Smith & Sobel, 2010; Woodhouse & Knapp, 2000). Other authors have tried to illuminate key facets of PBE through both quantitative and mixed-methods research (Powers, 2004; Jennings, Swidler, & Koliba, 2005). Rosenthal (2008) authored an extensive annotated bibliography on this topic. More recently, Colvin (2011) and Sugg (2013) provided accounts of resources dealing with place-based education. A special issue of the journal *Children, Youth and Environments* presented international research papers and field reports in the wake of the popularity of PBE (Barratt & Barratt Hacking, 2011). A special issue of *Environmental Education Research* mediated debate about the role of language within critical PBE research (Greenwood & McKenzie, 2008). To duplicate these documents would be redundant. A critical review of the literature integrates the varying viewpoints on the topic by systematically analyzing and ordering the literature to produce an alternative perspective, or reading, on the topic.

A critical literature review is effective for illuminating the influences of PBE that are otherwise silent within texts, revealing taken-for-granted assumptions in seminal literature. Torracco (2005) forwarded the notion of tracing a subject to its origins:

Critical analysis often requires the author first to deconstruct a topic into its basic elements.... Careful analysis often exposes knowledge that may be taken for granted or hidden by years of intervening research. It allows the author to reconstruct, conceptually, the topic for a clearer understanding of it and to assess how well the topic is represented in the literature. (p. 361-362)

To date, little critical analysis of PBE literature has been published. While select criticism of PBE has exposed problematic aspects of place-based approaches to teaching and learning (e.g. Bowers, 2008; Nespor, 2008), a conceptual reconstruction of the topic may provide clarity to practitioners and scholars interested in PBE.

Both method and content: The role of place in education

PBE is an appealing methodological and pedagogical concept and practice for many reasons. Connection to and care for the environment, civic engagement, and community wellness are considered to be some of the intangible benefits of reimagining what and where a classroom could be. In addition to such intangible benefits, PBE is also seen as an effective avenue to disseminate curriculum (Smith & Sobel, 2010). Proponents of PBE claim both the intangible benefits of education, as well as an increased capacity to satisfy measurable curricular outcomes. PBE embraces curricular traditions (e.g. progressive, experiential, integrative and interdisciplinary); yet efforts to integrate place-based practices into single-subject programs may confront philosophical, structural,

pedagogical and institutional barriers (Hutchison, 2004; Webber & Miller, in press). Debates about how and where to locate education has evoked a persistent dichotomy between method and subject matter in educational programs undergoing reform. Quay and Seaman (2013) posited that PBE is a reincarnation of previous educational threads and contains the very seeds of its undoing because it has failed to address unresolved issues that plague progressive strands of education (p. 2).

According to Quay and Seaman (2013) educators are typically focused upon either the child or the curriculum. In turn, education becomes either student-centered or content-centered and labeled either progressive or traditional. Despite the belief that educators identify the hazards in this either-or mindset, educational programs undergoing renewal continue to come up against the pattern outlined by Quay and Seaman. Given a global trend towards standardization, testing, and an ethos of accountability in schools that privilege single-subject content knowledge, place-based authors have called for a renewed conversation about the way PBE operates within current school structures (Gruenewald & Smith, 2008). Endorsing solely subject-specific outcomes and standards devalues key components of the curricula such as lifelong learning; engaged citizenship; and a sense of self, community, and place (Saskatchewan Ministry of Education, 2010). The schism between progressive and traditional approaches held in educational reform processes has been identified but unheeded in previous scholarship (Dewey, 1938; Schwab, 1973). When programs are introduced as either subject- or student-centered, the programs are caught in a cyclical either-or debate within educational reform. Many progressive programs are seen as trends, which will after time diminish only to be reinvented upon calls for increased student engagement.

Terminology

The terms education, learning, and pedagogy will appear throughout the review and merit a brief introduction. Education refers to the guidance of learners within a structured environment designed towards certain ends; the term education involves intentional programmatic decisions. I use the word learning when I discuss the agency and/or experience of people. Such a definition does not include tacit learning or socialization, but rather includes those experiences whereby the learner decides to engage in an activity in an intentional manner. People can *learn* in formal, non-formal, and informal contexts but it is only deemed *education* if it is designed towards certain ends. Pedagogy is defined as the art or science of teaching derived from the philosophical investments of the educator. For example, the Freirian pedagogy of dialogical circles is rooted in an emancipatory paradigm that seeks to empower and orient participants whereas experiential pedagogies in school settings may draw from a constructivist paradigm to account for multiple meanings and construction of knowledge in students (Crotty, 1998; Guba & Lincoln, 2005). The terms education, learning, and pedagogy will reappear throughout the research.

Research question

The original research question was:

How place-based education had been formed (and to what extent) from the streams of outdoor education, non-formal education, experiential learning, critical pedagogies, and land-based education?

As I engaged in the research process, the following questions came to hold more significance for the field of PBE:

- How has PBE literature developed in light of certain concepts, knowledges, and practices?
- What main themes can be identified in PBE literature?
- What are the central issues in PBE literature that define the field?

The chronological analysis highlights how PBE has developed in light of certain concepts, knowledges and practices over time. The thematic analysis identifies the main characteristics of PBE literature. The discussion takes up central issues in the literature that define the field. Socioecological education, the effect of language and post-structuralism, curricular implications, as well as Indigenous and Western knowledges are revealed as the main confluences in PBE literature. In addition, methodological studies, empirical evidence absences, and theory-practice discrepancies are discussed as major gaps in the field.

Organization of the thesis: The metaphor of watershed

While the debate surrounding the role of language and metaphor within PBE literature is acknowledged later in this review, I draw on metaphor to conceptualize PBE literature. To aid the discussion about PBE literature, I will employ the metaphor of a watershed. A watershed may be defined as an area of land separating waters flowing to different rivers, basins, or seas. In addition to providing an image for the review, the metaphor of a watershed recognizes the significance of integrating an ecological mindset within this research:

We need to rethink, to think differently: to use our imaginations again...
 metaphorical language [is] a way of rethinking and questioning orthodox thinking. A metaphor is what it does. A metaphor, because of the way it

brings together things that are unlike, reorients consciousness. (Green & Griffiths, 2003, p. 85 as cited in Roberts, 2012, p. 2)

The metaphor of a watershed holds plural meanings for this research. First, converging rivers can be understood to detail the various educational streams that have contributed to my understanding of PBE. The question arises about how the various streams integrate into one another, at what point this happens, and to what extent does one stream influence another. In each individual watershed, there exists a plurality of creeks, drainages, landforms, and organisms, which shape and are being shaped through interaction. These disciplinary streams, akin to a watershed, hold distinct and particular characteristics; ultimately, the water runs down and connects with other streams to form a river. In the case of this research, the river is called place-based education. Let us “read the water” and conduct an overview the remaining thesis chapters.

Overview of thesis chapters

In chapter one, I have highlighted my position in relation to the research and introduced the research questions. In Chapter two, Methodology, I describe the process for conducting a critical literature review. This chapter outlines data collection methods, data analysis procedures, as well as explains the rationale in organizing the review. Limitations of this research are also discussed in chapter two. Chapter three considers literature constituting the terrain of place-based education. The metaphor of terrain speaks to the wider educational landscape of PBE literature. In chapter three, I identified literature deemed formative to the field and I categorized literature into different streams of educational traditions. This may benefit practitioners who are interested in the foundations of PBE.

Chapter four contains the chronological and thematic analysis derived from the methodology of a critical literature review. In chapter four, I analyzed PBE literature by juxtaposing, connecting, and inferring differences in the categorization of PBE literature. The chronological analysis draws from the metaphor of channels to signify how certain concepts, knowledges, and practices have developed within PBE literature. The chronological analysis of PBE literature highlighted the development of environmental, experiential, and philosophical tracts within the field over time. The thematic analysis draws from the metaphor of currents to signify the forces in the literature that are not readily apparent to readers. The differing contexts of PBE literature, curricular dimensions and then critical pedagogies of place are grouped together to synthesize the cardinal themes in the field. Chapter five, Discussion, draws from the metaphor of confluences to highlight the inter-relatedness of PBE literature. The discussion, or confluences, compounds the categorization of literature presented in chapter four in order to highlight the potential meaning of the chronological and thematic analysis. This chapter explores the central issues in the field before highlighting gaps in the literature. Chapter six concludes the thesis by drawing upon the metaphor of higher ground to give perspective on PBE literature, summarizing the work that has been done and offering questions for future studies.

Conclusion: Intricate waters

Using the metaphor of a watershed helps to conceptualize the field of PBE. I decided on the metaphor of a watershed when I initially started this research because I feel a connection to rivers. The image of intricate waters offers my impression of the review: complex and difficult with many parts artfully combined. This refers to both the

process of synthesizing the literature as well as my experience as a canoeist. When paddling, the ways in which the currents and channels integrate and intersect inform how best to navigate the water. Growing up, I would paddle a particular stretch along the North Saskatchewan River with my father, brother, uncle and cousins and then later, with summer camps that I was involved with. This stretch of river is wide and braided; the shifting channels and currents deposited remnants of trees and debris along the shoreline. Sun-bleached over time, these remnants stack and clutter the islands and outside bends of the river. Paddling through this stretch of river, one must be aware of how the currents and channels push towards the outside bends of the rivers. Drawing from my experiences on rivers, this review conceptualizes the field of PBE as a river with its own watershed, channels, and currents. The introduction to this thesis has stated the purpose of the review, highlighted my position in relation to the research, provided the research questions, as well as outlined the organization of the thesis. Chapter two will detail the methodology of a critical literature review used in this study in order to explain how I got the findings, why they can be trusted and how they answer the research questions (Atherton, 2010).

Chapter 2: Methodology

Introduction

Before dealing with the methodology of this study it is important to note that chapter three did not employ the methodology of a critical literature review. Chapter three introduced literature representative of the educational streams of outdoor education, non-formal education, experiential learning, critical pedagogies, place-based education, and land-based education. I did this initial literature review to understand from where PBE emerged. While portions of PBE literature in chapter three aligned with my background experiences, other aspects seemed inconsistent with the aims of outdoor, experiential education with which I was familiar. As such, chapter three was an initial attempt to locate myself in approaching place-based education to include critical, environmental, and Indigenous perspectives. Orienting the literature within a metaphor helped to conflate otherwise distinct traditions into a spatialized analysis. The terrain of PBE chapter served as a query into the wider literature base about the topic. In addition, because little had been written about the formation of the topic, chapter three helped to uncover the wider genesis of current iterations of PBE. My own interests, directed reading courses, and constructive feedback informed the selection of literature for this section. Chapter three represents my initial understanding of place-based education and helped to formulate the research proposal.

This chapter will detail how a critical literature review was enacted in chapter four to give purpose to the discussion offered in chapter five. To do this, variables surrounding data collection methods as well as procedures will be detailed. Then, organizational decisions as well as limitations of the methodology will be discussed. In

attempting to synthesize the field of place-based education for a broader audience, one constraint facing my research was the diverse amount of PBE literature that employs place-based terminology. Because PBE literature is derived from varied sources, identifying the literature was difficult and time-consuming. For this reason, my review fills a need in the scholarship for synthesizing the field.

Entering the term “place-based education” into a library database yielded varied results. “Place-based education,” “(critical) pedagogies of place,” “place-conscious education,” and “community-based education” are used seemingly interchangeably in the literature to represent the focus upon place as an educational linchpin (Theobald, 1997; Sobel, 2004; Gruenewald, 2003, 2004). The various environmental, international, scientific, and research journals that include place-based terminologies made it difficult to grasp the major channels and currents within the field of place-based education across paradigmatic, disciplinary, and institutional perspectives. Despite confusion about the main tenets of PBE literature, authorities of the field were detected and examined as important landmarks for those interested in place-based approaches to education. Sugg (2013) noted prominent voices in his synopsis of PBE:

Since the term first appeared in mainstream education literature in 2002, place-based education now appears with some regularity in education journals (Rosenthal, 2008). But the pillars of the field (i.e. Smith, Theobald, and Gruenewald) still anchor much of the literature. Perhaps this is a sign of their work’s enduring quality. However, as place-based education matures, new voices... may add perspectives and diversity while challenging long-held assumptions, and thus strengthen the research base. (p. 62)

I took up Sugg's (2013) suggestion to include new perspectives and diversity where possible in synthesizing the literature. Admittedly, this review does rely upon much of the work contributed by the "pillars of the field" outlined by Sugg.

Data collection methods

While a literature review may at times precede other forms of studies, it can also be employed as stand alone research, if done in a critical framework. I relied upon Susan Imel's (2011) work in order to conduct a critical literature review. Imel proposed a methodology outlining how critical literature reviews integrate and synthesize previous work (p. 146). A critical review may be defined as covering a body of literature and the integration and synthesis of what has already been done to produce new perspectives (p. 146). While many literature reviews are simple treatises that offer a reiteration of what was previously said, by clarifying methods that provide a structure to analyze the literature, new perspectives can be generated. The methodology is limited for its emphasis upon scholarly literature as it will be theoretical in nature. And while this is a limitation, such a review may benefit those interested in the scholarly literature detailing PBE compiled into one source.

I searched the ProQuest Education Database as well as Scopus Database to find titles related to PBE. Specific journal titles such as *Environmental Education Research*, *Canadian Journal of Environmental Education*, as well as *Journal of Experiential Education* figured prominently into discovering PBE literature. Specific footnotes and references were also searched to detect PBE terminology and references. Such a task was continuous throughout the research process. In a concession to practicality, I considered how other authors have described PBE in order to grasp main groups of literature. For

example, Waite's (2013) article helped me to identify Australian and New Zealand PBE literature.

Focus.

The focus of this review was upon published literature in the field of education, and to a lesser extent published literature in the social sciences. The review includes literature representative of quantitative and qualitative research articles, projects, books, and programmatic literature. In my search for relevant literature, Masters' and Doctoral work highlighted the growing interest in PBE indicative of the growing literature base (Bertling, 2013; Chipman, 2014; Coleman, 2014; Harasymchuk, 2015; Marine, 2014; Moody, 2013; O'Connor, 2009; Rosenthal, 2011; Sugg, 2015). The chronological and theoretical analysis took up some of the literature already introduced in chapter three as a starting point for discovering new literature (Gruenewald, 2003; Smith, 2002; Smith & Sobel, 2010). The focus of the research was exploratory in nature, with the sources being added concurrently alongside the process of investigating texts.

Goal.

The goal of this review was to conceptualize and synthesize PBE literature in order to determine the central issues in the field of PBE. To do this, I placed my analysis of PBE literature into the critical analysis chart (Appendix A). The chart organized my analysis of each text through the same predetermined questions (Imel, 2011, p. 152). The categories of the data analysis chart consisted of citation information, purpose, (problem or issue) key terms, theoretical framework, conclusion, implications, weaknesses, strengths, as well as contribution to the literature base. How the literature was analyzed will be discussed in the data analysis procedures section.

Coverage.

Having introduced cardinal PBE literature in chapter three as well as literature identified by Sugg (2013), I debated the amount of “canonical” literature to include versus literature that was published in smaller journals with lesser impact upon the field. Ultimately, I selected texts that I felt were representative of key perspectives that would either problematize key assumptions of PBE or which represented key aspects of major debates. This decision derived from my inability to relay the high amount of information pertaining to every source.

Not all place-based literature is adequately represented in this review. Because PBE has had a wide effect upon single-subject approaches to education, its presence can be found in many science, English, and social studies curricular documents. Even though Sobel (2004) defined place-based education as the, “process of using the local community and environment as a starting point to teach concepts in language arts, mathematics, social studies, science, and other subjects across the curriculum” (p. 23), sources that are dedicated to specific disciplinary approaches to teaching and learning are underrepresented in this review.

Ault (2008) argued for the significance of disciplinary approaches to PBE. Showing how some disciplined curriculum approaches are complementary to PBE, Ault warned, “place-based enthusiasts must be careful, as must all integrative educators, to treat disciplines as more than sources of information.... Disciplinary structures do overlap in many ways; nevertheless, to substitute an umbrella of common processes for thinking disciplined by context would be unwise” (2008, p. 627). This review is limited regarding operationalization of PBE themes within the disciplinary frameworks outlined

by Ault (2008). Select interdisciplinary approaches such as early childhood education, literacy education, and international education that draw upon PBE literature in a variety of ways are also underrepresented. Theorizations of situated learning concerning the spatial, material and geographical dimensions of education also parallel PBE but were not included to the extent that they might have been. Colvin (2011) offered a place-based education annotated resources list that may prove helpful for inquiries related to curriculum and activity guides.

Perspective and audience.

The perspective of the review and the intended audience are closely linked. The perspective of this research is my own critical analysis of PBE literature. Such an analysis is intended to help practitioners who are interested in place-based approaches to education; however, this review must also satisfy the research qualifications for a Masters-level thesis. The intended audience includes those who will use the work: practitioners who may reflect upon or operationalize these areas of teaching and learning. This means satisfying scholarly expectations with a consideration of its value to practitioners. Such, scholarly expectations necessitate the adherence to the methodology, consideration of existing perspectives and critiques, as well as the awareness of existing scholarly frameworks and debates.

Brookfield (1993) offered a series of questions that forces researchers to reflect critically upon the literature they are examining. Such questions “are part of [Brookfield’s] own project of practical theorizing about critical practice” (p. 63). Brookfield categorized four categories of questions: methodological, experiential, communicative as well as political. Such prompts aided my own critical reflection

through this process and I have included an adapted version of the questions in the appendices (Appendix B). Because a critical literature review depends on the knowledge created by the researcher, an ongoing dialogue with Brookfield's questions helped engender a critical approach to the literature.

The perspective of the researcher can inhibit the researcher's project. Monturi (2005) explained the research process is a creative inquiry whereby the researcher is a participant rather than an observer. A qualitative research paradigm acknowledges the construction of knowledge both on an individual level, as well as through the engagement with a body of literature. Patti Lather (1999) identified the presence of the researcher's position in the review, "whether implicitly or explicitly, we [the audience] learn the reviewer's investments in knowledge-producing practices and get a sense of what contributes to the knowledge base of the field" (p. 3). Lather endorsed locating oneself in the process of reviewing literature, promoting a sense of accountability in the critique and its cultural reception. While the introduction initially framed my positionality and impact as it relates to knowledge creation, my presence as a reviewer can be detected through the thesis (Lather, p. 3).

As a researcher, I wish to acknowledge and uncover the presence of social privilege, racism, oppression, and white supremacy (Sensoy & DiAngelo, 2012). The scope and depth of certain issues and perspectives may or may not readily appear to me because I am the beneficiary of systemic and hierarchical social systems. Anti-racist educator McLean (2013) defined Whiteness as "a socio-spatial process that constitutes particular bodies as possessing the normative, ordinary power to enjoy social privilege" (p. 354). McLean argued that Whiteness continues to be normalized within

environmental education through dominant narratives of Canadian nation building, which signifies wilderness spaces as white, or alternatively, empty. In lieu of my background possessing power to receive social privilege, I open this research to critique and as a process of discovery.

Data analysis procedures

After I collected the literature, I entered my analysis into an analysis chart (Appendix A). For each manuscript, I entered in the purpose (problem or issue), key terms, theoretical framework, conclusion, implications, weaknesses, strengths, as well as contribution to the literature base. The weaknesses and strengths portion of the analysis were often derived from Brookfield's questions (Appendix B). Once I entered the data into the sheet, different types of procedures explained below worked to synthesize the data into chronological and thematic groupings.

Juxtapositions, or reading the analysis of literature side-by-side, allowed me to see big picture trends. For instance, I was able to group together texts that held an emancipatory theoretical framework. Similarly, literature that contained phenomenological terminology could be grouped and connected. This was helpful in plotting the chronological analysis. Another procedure that helped me make connections in the literature was concept maps. This consisted in the visual process of questioning, connecting, and separating various concepts, authors, and constructs on paper. I relied upon concept maps the most to synthesize the thematic analysis.

I also made inferences for this research during my everyday life away from my desk. I worked casually as a letter carrier while writing this thesis. These urban walks helped me to reflect upon the literature while out in Calgary's communities. I also spend

time on rivers during the summer months canoeing in a teaching capacity, so it follows that water has helped me conceptualize the field of PBE. Reflecting on the analysis portion of the review, the most helpful procedure was writing, concept maps, and note taking. Looking back to my notes, I can highlight how select writings and questions I held at the time of organizing and juxtaposing the literature has contributed to the addressing the research questions.

Data Organization

Upon Imel's (2011) recommendation, Merriam's (1983) critical literature review served as an example about the organization and presentation of sources. The main force in the research story is my changed perspective as I moved from influences (chapter three) – critical analysis (chapter four) – confluences (chapter five) portions of the review. Similar to Payne's (2002) construction, deconstruction, and reconstruction of experience in 'critical' outdoor education, this work calls attention to the multiple meanings of PBE. I know that PBE holds multiple meanings because I have identified plural aspects, extents, and limits within the literature. A difficult task of this research was the decision about how best to present the connections I had made. Oftentimes, one manuscript addressed many issues that transcended my designations. For instance, Gruenewald's (2003) work could fit into almost any category. That select literature overlapped throughout the review is one of the research's limitations.

Limitations

As previously introduced, there was a question of overlap to be resolved in presenting this research. In an attempt to create a clear narrative for the reader, I bracketed certain topics and literature to either the chronological or thematic sections.

This was a result of the amount of literature analyzed and my desire to present the most robust reading of PBE that I could. The chronological and thematic analysis are not necessarily separate in their focus, but separate in their organization to conceptualize PBE literature in a linear as well as a non-linear fashion. Both analysis portions were conducted through the same questions but organized to best reflect the findings of my analysis (Appendix A). Another change made to address this limitation was to discuss both the chronological and thematic analysis together in chapter five. In discussing the literature in one dialogue, I was able to make connections amidst the chronological and thematic analysis that best reflects the findings derived from the methodology.

Conclusion

As per Atherton (2010), the chapter has explained how I arrived at my findings, why they can be trusted and how they have helped to answer the research questions. A critical literature review may be defined as the integration and synthesis of what has already been done in the literature to produce new perspectives (Imel, 2011, p. 146). In conceptualizing and synthesizing the literature, Brookfield's (1993) methodological, communicative, political and experiential questions helped me critically analyze the texts (Appendix B). The act of juxtaposing, inferring, connecting, mapping, and writing about the literature produced the chronological and thematic analysis. The issues of socioecological education, the effect of language and post-structuralism, curricular implications, as well as Indigenous and western knowledge are the main issues within PBE literature discussed in the confluences portion of the review.

Chapter 3: The Terrain of Place-Based Education

Introduction: Influences

This chapter will conduct a review of the literature within the metaphor of a watershed. A watershed is an area of land that separates waters flowing to different rivers, basins, or oceans. Conceptualizing PBE as a distinct watershed means that we must first examine its many tributaries that have helped to influence the literary landscape of PBE. This chapter will explore literature pertaining to outdoor education, non-formal education, experiential learning, critical pedagogies, place-based education, and land-based education, which constitute the PBE watershed. In this sense PBE literature is both a stream in the terrain as well as the main river of this review – a part and a whole. Locating PBE as a stream in the watershed is a way to understand the influences in the development of PBE as a body of literature. I will begin by examining these six streams to provide an introduction to the terrain of PBE.

Outdoor Education

The first stream under review is outdoor education (OE). The early roots of OE in Canada can be traced to broad initiatives including the scouting movement and the Margaret Eaton School for girls in the early twentieth century. Baden Powell launched the Boy Scout movement in 1908 with the *Scouting for Boys* manual amidst calls for morally and physically strong men (MacDonald, 1993, p. 4). The movement reflected the contemporary colonial attitudes in regards to the frontier and Indigenous peoples as well as promoted a binary between men and women. With that, it also captivated the imaginations of boys amidst a “crisis in masculinity” and spurred on the relevance of non-formal adventure education (MacDonald, 1993, p. 17). The Margaret Eaton School

of Literature and Expression in Toronto, affiliated with the YWCA started as a pairing of grammar and physical education for women, largely from wealthy homes in the Toronto area (Byl, 1992, p.2; see also Hallman & Lathrop, 2006). An ethos of adventure and travel was prevalent amongst the ruling elite in Canada during the early part of the twentieth century and many elite private schools promoted adventure education. The increasing urbanization and industrialization of Canadian cities was paired with the popularity of National Parks amongst the wealthy class as well as the emergence of the Alpine Club of Canada in 1906. It was after the Second World War that the benefits attributed to outdoor education began to gain traction within public and private school settings.

Post-war American society is credited as the birthplace of modern notions of OE. Camping enthusiast L.B. Sharp (1943) forwarded his philosophy of education as, “that which ought and best be taught inside the schoolrooms should there be taught and that which can best be learned through experience dealing directly with native materials and life situations outside the school should there be learned” (p. 363-364). Sharp sought learning beyond the classroom, and for school curriculum to be paired with the best place to learn (p. 364). Sharp conceived of outdoor education as an integral part of schools and as a way to inaugurate a more realistic understanding of learning. He stated, “it is strange but true that most of the material to be taught in school comes from outside the classroom; from the land, the country at large, and the adjacent community. This material is effectively arranged in books and by other devices spread before the child in the classroom” (p. 366). Despite the growth of outdoor education in schools, very little

theoretical or conceptual discussion was produced until much later, when outdoor education was being discussed in recreational journals.

G. Donaldson and L. Donaldson (1958) called for scholarship to understand outdoor education. They stated, “outdoor education is education *in, about, and for* the outdoors... its methodology is as old as mankind – learning by using the senses out where the subject matter exists” (p. 17). Here we find a significant step – that learners should form a connection and care for the outdoors through direct experience. When outdoor education cares about the place, “*for* the outdoors,” it recasts the purpose of education to extend beyond solely teaching curriculum to include a moral dimension, which posits that both the learner and the environment must be improved by the experience. This understanding was the defining characteristic that helped contribute to defining outdoor, environmental education. Donaldson and Donaldson promoted the inclusion of environmental considerations in teaching and learning outdoors.

The impacts of the Belgrade Charter (1976) and the Tbilisi Declaration (1978) framed environmental education as an heir to outdoor education, with experiential and environmental dimensions present throughout the various definitions of OE (Gough, 2013). Hammerman, Hammerman, and Hammerman’s (1964/2001) work is described as a “how to guide” for outdoor education as it explored the multi-faceted nature of outdoor education as:

...an approach toward achieving the goals and objectives of the curriculum, which involve (a) an extension of the classroom to an outdoor laboratory; (b) a series of direct experiences, in any or all phases of the curriculum, involving natural materials and living situations, which increase awareness

of the environment and life; and (c) a program that involves students, teachers, and outdoor education resource people in planning and working together to develop an optimum teaching-learning climate. (p. 5-6)

Such a multi-faceted definition reflects the growing complexity of teaching and learning outdoors, its various aims and purposes, as well as its in-flux relationship with formal curricular education.

Priest (1986) also stated that outdoor education is based upon curriculum matter (p. 14). Describing OE as a matter of many relationships, Priest described outdoor education as a wide, meandering, and multifaceted enterprise. By this time, experiential, environmental, and adventure education had begun to carve out disciplinary tracts in mainstream education. Here the relationship between outdoor education, the environment, and formal education is interconnected. Priest (1986) offered this definition:

Outdoor education is an experiential process of learning by doing which takes place primarily through exposure to the out-of-doors. In outdoor education, the emphasis for the subject of learning is placed on RELATIONSHIPS, relationships concerning people and natural resources. (p. 13)

This new definition reflected the plurality of phenomena happening within the realm of outdoor education at this time. The term “experiential process” can be traced to John Dewey, and afterwards to the establishment of the Association for Experiential Education (AEE) in 1977. And while experiential learning can have a plurality of definitions, it can be loosely defined as taking place anywhere by individuals learning by doing (Adkins &

Simmons, 2003). Within Priest's definition of OE lies the emergence of two subsections within outdoor education.

Experiential and environmental dimensions are explicitly cast as weaving together the fabric of teaching and learning outdoors. Priest (1986) goes on to describe OE as (a) a method for learning, (b) experiential, (c) taking place primarily outside, (d) requiring the use of all senses and domains, (e) based upon interdisciplinary curriculum matter, and (f) a matter of relationships involving people and natural resources (p. 13). This outline offered a home for the major strengths of outdoor education, allowing for the various methods of outdoor education to be consolidated under one banner. Priest highlighted the relationship between humans and natural resources as a way to characterize teaching and learning outdoors as the interaction between individual experiences and the more-than-human world.

This section has explored the meandering definition of outdoor education. The changing meanings of OE reveal foundational notions of what teaching and learning outdoors is meant to accomplish. Sharp's (1943) treatise paired the content of education with the best place to learn it. Donaldson and Donaldson (1958) insisted teaching and learning *in, for, and about* the outdoors implies wider dimensions of education to include consideration of the natural world. Priest (1986) asserted that OE connected the inter/intrapersonal relationships inherent in adventure education with the ecosystemic and ekistic relationships found in environmental education. Priest (1986) defined ekistic as the interaction between people and their surroundings: "how humans impact on natural resources and how that might have a reciprocal effect, with the quality of land influencing the quality of society's life" (p. 14). Much of the writing on outdoor

education focused on formal education yet both formal and non-formal education contexts are found in tracing the genesis of outdoor education. As such the relationship between formal and non-formal education contexts warrants review. Non-formal education, as a stream in the PBE watershed, requires definition and clarification.

Non-formal Education

In addition to formal education programs, teaching and learning outside the classroom is often conceptualized as an extra-curricular activity, commercially privatized event, or as a social experience. Examining the conceptual basis of non-formal education allows for heightened comprehension of how education is enacted beyond the traditional school setting. The conceptual basis of the term non-formal education is found in the context of adult education and lifelong learning. Lindeman (1995) posited, “education is life – not a mere preparation of an unknown kind of future living.... Or, the whole of life is learning” (p. 32). This quotation signals a departure from education as a training process, which reduced education into a division between school and life-work contexts. An understanding of education beyond job procurement meant that non-formal education must be conceptualized apart from a dominant educational bias which implies that life outside the school grounds ceases to be educational. Most formal types of education are affiliated with accreditation or certification with distinct time commitments whereas a lifelong learning approach accounts for those topics that are protracted over larger periods of time. Lifelong learning broadens notions of education from that of concise training to non-vocational ideals motivated in the interests of learners (Lindeman, p. 33). The conversation can pivot around three broad categories of learning: informal learning, non-formal education, and formal education.

Informal learning can be defined as “any activity involving the pursuit of understanding, knowledge, or skill which occurs outside the curricula of educational institutions, or the courses or workshops offered by educational or social agencies” (Livingstone, 1999, cited in Schugurensky, 2000, p. 1). And while informal learning takes up most of our time, it is not broadly considered *education* (Schugurensky, 2000, p. 2). Examples of informal learning are reading the paper, going for a walk, or having a conversation with friends if one learns from those experiences. And so learning is attributed to the agency of the learner, while the term education involves intentional programmatic decisions. People can *learn* in formal, non-formal, and informal contexts but it is only deemed *education* if it is designed towards certain ends.

Non-formal and formal education aligns with institutional and professional aims. In an article addressing the European validation of non-formal and informal learning, Colardyn and Bjornavold (2004) drew from the European Centre for the Development of Vocational Training (CEDEFOP) for their definitions of non-formal and formal learning.

Non-formal learning consists of learning embedded in planned activities that are not explicitly designated as learning, but which contain an important learning element. Non-formal learning is intentional from the learner’s point of view. Formal learning consists of learning that occurs within an organized and structured context (formal education, in-company training), and that is designed as learning. It may lead to a formal recognition (diploma, certificate). Formal learning is intentional from the learner’s perspective. (CEDEFOP, 2000, cited in Colardyn & Bjornavold, 2004, p. 71)

This definition clarifies some of the markers of non-formal and formal education. Assessment and recognition distinguish formal and non-formal education, with ‘intentionality’ being a connecting point between the two broad categories. What exactly constitutes “intentional” learning remains an inexact approach to discern a non-formal program from that of formal education. One could argue that it is intentional to go for a walk, or to engage intentionally with those events demarcated as non-formal. Furthermore, in the case of the most formal education system, intentionality is not necessarily initiated or an intended perspective. Colardyn and Bjornavold’s definition helps clarify aspects relating to assessment and recognition, but does not adequately address the nature of the learners’ participation.

For a refinement on these definitions, we can draw upon alternative sources. Alan Rogers (2004) traced the rise of non-formal education in the context of a perceived failure of institutional education (e.g. Illich, 1973; Friere, 1972). He cited Coombs and Ahmed’s (1974) definition: “nonformal education... is any organized, systematic, educational activity carried on outside the framework of the formal system to provide selected types of learning to particular subgroups in the population, adults as well as children” (Coombs & Ahmed, 1974, cited in Rogers, 2004, n.p.). Rogers conceived of lifelong learning as being co-opted by the states’ two main aims of economic growth and active citizenship. Rogers noted that the emergence of privatized programming, e-learning, and other forms of schooling blurred the line between formal and non-formal learning. Even though the boundaries between the formal and non-formal contexts are malleable, Rogers proposed a new paradigm of education, which characterizes the categorization depending on *where* the agency of learning emerges. He wrote:

[w]hen we step into a pre-existing learning programme but mould it to our own circumstances, we are engaged in non-formal education. When we surrender our autonomy and join a programme and accept its externally imposed discipline, we are immersed in formal education. (2004, n.p.)

With this understanding, education programs can range from formal to non-formal groupings, depending on the intentionality of the learner. Teaching and learning outside the classroom tends toward a non-formal paradigm because of its learner-centered practice and capacity to frame programs to existing circumstances like the natural and built environment, the learners' experience, and observable phenomenon.

Rogers' (2004) new paradigm can nest within existing education systems; the task of designation is in deciding which approach pairs with curricular objectives and organizational acceptance. Having traced various definitions of non-formal education, it is best summarized as an embedded program, which is prepared-for and intentional from the learners' perspective and molded to the learners' circumstances and contexts. In this way it can be considered as a participatory and guided avenue for inquiry. It may result in assessment and recognition, although this is not a basic tenet. Non-formal education programs facilitate many guided and participatory avenues for inquiry. Such avenues are inherently experiential for the learners, given their emphasis on the agency of the learner. Experiential learning includes experiences whereby the learner decides to engage in, and reflect upon, an activity in an intentional manner. Agency is a critical factor in experiential learning, the next stream under review.

Experiential Learning

Experiential learning (EL) is a prominent stream in the PBE watershed. Dewey (1938) articulated the importance of experiential learning (EL) in his simple premise: “there is an intimate and necessary relation between the processes of actual experience and education” (p. 20). The quality of experience can be understood in a continuum; whereas some experiences were mis-educative and led to callousness, other experiences were desirable and tended towards additional experiences. This shifted the focus of education towards the learners’ realities – education depended on learner’s pursuit of learning (p. 27). Dewey sought to differentiate his conception of knowledge from existing disciplines and authority. He believed school oriented subject-specific approaches lacked the capacity to engage students in thinking beyond norms and standards. Dewey criticized mainstream schooling for its dependence on established knowledge, “since the subject-matter as well as the standards of proper conduct are handed down from the past, the attitude of the pupil must, upon the whole, be one of docility, receptivity, and obedience” (p. 18). From a Deweyan perspective, subject matter should begin with the present, lived experiences of students.

Dewey maintained a commitment to the democratic ideal of freedom, “when education is based in theory and practice upon experience, it goes without saying that the organized subject-matter of the adult and the specialist cannot provide the starting point” (p. 83). Conceiving the then current education regime as detached from the ideals of democracy, Dewey developed a criterion through which learners can develop an, “ability to form purposes and to select and arrange means for their realization” (Dewey, 1938, p.

84). Cultivating the ability to form purposes and evaluate their consequences is a core tenet of experiential learning and is a marker of autonomy and self-efficacy.

Dewey's criteria of experience recognized internal realities and also involved objects, surroundings, and people: "all human experience is ultimately social: that it involves contact and communication" (Dewey, p. 38). This interactionism ascribed equal value to both objective and internal realities: "any normal experience is an interplay of these two sets of conditions" (p. 42). Thus we can see that Dewey's philosophy is not dichotomized, neither entirely child-centered nor purely subject-centered, but rather contextual and pragmatic to the situation – the individual and the environment together. Dewey stated that existing schools often sacrificed this interaction for a controllable and digestible curriculum (p. 50). Depriving students of real world, hands-on experience reduced education to delimited accounts of reality. In other words, Dewey held that students must learn how to learn via their own experience as opposed to shouldering a prescribed cognizance.

How students learn, or how learning is processed, is another tenet of EL. Process thought has contributed to experiential learning through the philosophy of Alfred North Whitehead. Whitehead (1967) defined wisdom as the way in which knowledge is held. He stated that wisdom "concerns the handling of knowledge, its selection for the determination of relevant issues, its employment to add value to our immediate experience. This mastery of knowledge, which is wisdom, is the most intimate freedom obtainable" (cited in Woodhouse, 2013, n.p.). For Whitehead, isolated forms of knowledge were sterile; wisdom added value to bare experiences through the proper application of knowledge within larger considerations (Whitehead, 1967, p. 32).

Whitehead called for renewed imagination in the categories that underpin stages of philosophic thought – ultimately he proposed a new metaphysical framework within Western philosophy (Hunt, 2011). In *Process and Reality* (1967), Whitehead outlined his framework of experience and the process of becoming (1967, p. 34). Whitehead developed the category of explanation to outline the principle of process:

That how an actual entity becomes constitutes what that actual entity is; so that two descriptions of actual entity are not independent. Its ‘being’ is constituted by its ‘becoming.’ This is the principle of process. (Whitehead, 1978, cited in Hunt, 2011, p. 45)

In this principle the categories of being and becoming are interdependent. Commenting on Whitehead, Hunt (2011) stressed how we educate students will have a direct link to what becomes of students.

David Kolb is credited for the resurgence of experiential learning in mainstream education by contributing a renewed experiential learning theory and experiential learning model. Drawing from Dewey, Lewin, and Piaget, Kolb (1984) advanced the idea that “learning is the process whereby knowledge is created through the transformation of experience” (p. 38). Alongside Roger Fry, Kolb posited an experiential learning cycle that involved (1) concrete experience (2) observation and experience (3) forming concepts and (4) testing in new situations. This cycle lead to categorizing learning cycles, depending on the strengths of individuals in relation to how they interact with the learning cycle. The Association for Experiential Education (AEE, 2014) definition contains many of these contributors in a summative definition:

Experiential education is a philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities. (AEE, 2014)

This definition suggests that experiential learning houses many methodological frameworks to facilitate the goals to which the learning process is directed. Consequently, many programs borrow certain methodologies without knowledge of philosophical influences. The aforementioned - but unacknowledged - philosophic influences are then reflected in the programmatic structures, language, and purpose of education practices.

The stream of EL can be considered as a major tributary in the field of PBE because it deals with the agency and understanding of the learner. Individualized freedom, personal autonomy, and democratic ideals highlight an, “underlying commitment to the legitimacy of personal and individual growth that is central to the philosophy of [experiential education]” (Lindsay & Ewert, 1999, p. 12-13). Personal and individual growth is one way that experiential learning facilitates teaching and learning for learners. And while individualized understandings of education are important, it is also crucial for education to be placed within certain communal and ecological frameworks.

Place-based Education

Curtiss and Theobald (2000) explored communities as curricula when they posited, “efforts to prepare students for the real world shouldn’t ignore the learning environment that lies just beyond the schoolhouse gate” (p. 107). Citing Dewey,

Whitehead, and others, Curtiss and Theobald recast the community as a resource for constructivist understandings of learning. Such understandings promote the belief that meaning and knowledge is created within the learner rather than the learner passively receiving knowledge. In the wake of community disintegration, especially in rural contexts, Curtiss and Theobald (2000) asked what could be done to promote students as citizens and strengthen the social fabric of society. The answer they stated is simple: use schools as a source of community renewal rather than a cause of community disintegration” (2000, p. 111). In order to cultivate creative and critical thinkers, learning circumstances must allow for students to contribute to their community. Such meaning will promote deep learning and various interactions with peers and others who live and work around them. Such an inquiry-based approach is a major tenet of PBE.

To make sense of the genesis of PBE, Woodhouse and Knapp (2000) traced the convergence of outdoor and environmental approaches to education to show place-based curriculum and instruction evolved from community-oriented schooling. They offered a digest outlining the emergence of place-based education and highlighted its essential characteristics. They illustrated PBE characteristics emerging out of the particular attributes of a place, and that it is inherently multidisciplinary. PBE is also experiential, connected to action, and benefits the community. Connecting self with community establishes an ecological awareness for the learner, which promotes connections to multigenerational and multicultural dimensions as well as community resources as they connect to curricula. Woodhouse and Knapp (2000) described PBE as a recent trend in the broad field of outdoor education and promoted its adoption for educators as a means to teach and learn about issues of land and sustainability. They are not the only authors

who have traced the connections between the various disciplinary paths between outdoor, environmental, and place-based education. Fourteen years after Woodhouse and Knapp published this digest, PBE has emerged as more than a trend.

The literature identified in the terrain of place-based education challenges the prevailing discourse about the purpose of education. Greater than a “learn to earn” model, PBE holds broader objectives in addition to curricular outcomes. Adkins and Simmons (2003) examined the converging and diverging approaches of outdoor, experiential, and environmental education to conclude that OE is a direct antecedent to environmental education, which can include subject matter other than the learning about the environment. Sharing many of the same roots, PBE scholars advocate for a more holistic purpose for education. Select scholars envision place-based education as a challenge and alternative to standardized approaches to education.

Smith (2002) offered an overview of place-based education and synthesized central themes of PBE: cultural studies, nature studies, real-world problem solving, internships and entrepreneurial opportunities, and induction to community processes (p 587-593). Linking place-based education to Dewey’s progressive philosophy as well as many other educational programming, Smith noted that this strand of education remains more the exception than the rule in American classrooms. He ends the article with the title, “choosing a transformational agenda” and highlighted five common elements of teaching and learning through place, starting with the notion of exploring local phenomena.

Smith (2002) posited local phenomena as a starting point for teachers as a counterpoint to the decontextualized knowledge that has been the main staple of

curriculum implementation. Choosing to integrate subject matter with the proximal environment allows for real world and experiential learning and engages students' learning. Second, students' capacity for knowledge creation will empower and promote learning. In addition to this, the dispersal of knowledge creation highlights the role that students' questions and concerns have for shaping their own learning. Fourth, Smith pointed to teachers' strengths, not in being experts, but in their capacity to "to help students acquire the skills and dispositions of effective learners" (p. 593). Lastly, Smith called for a permeable wall between school and community and echoed Curtiss and Theobald's (2000) call for communities to serve as curricula. Smith ends the article by highlighting some of the difficulties employing PBE in current educational regimes. He pointed to the fundamental rethinking that will be fostered in accepting the radical nature of teaching and learning through places.

Expanding on many of Smith's (2002) ideas, David Sobel's (2004) book offered an introduction to the field of PBE, which is often cited for its definition of place-based education:

Place-based education is the process of using the local community and environment as a starting point to teach concepts in language arts, mathematics, social studies, science, and other subjects across the curriculum. Emphasizing hands-on, real-world learning experiences, this approach to education increases academic achievement, helps students develop stronger ties to their community, 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 the active engagement of local citizens, community organizations, and environmental resources in the life of the school. (2004, p. 7)

Sobel offered PBE as a reconceptualization of the environmental movement, to promote a more inclusive understanding of both natural and built environment (See also, Stevenson, 2007). Sobel drew from environmental scholars (i.e. Hart, 2007; Lieberman & Hoody, 1998) in his consideration to include the social domain into environmental considerations. Sobel here solidifies place-based education as a means of conjoining innovative education practices through localizing education: “to bring all of these strands together in a common framework for curriculum thinking and school design aimed at deepening students’ connection to their communities in ways that make those communities better places to live” (p. 21).

Gruenewald and Smith’s (2008) book *Place-Based Education in the Global Age* stands as a landmark anthology of PBE. Compiling PBE scholars provided a needed resource for the self-described movement. The book is oriented into three parts: models for place-based learning, reclaiming broader meanings of education, and global visions of the local in higher education. The chapters reveal the impact of the concept of place in education. Indigenous knowledge, environmental justice, diversity issues, nature study, leadership formation, and teacher education are examples of the far-reaching scope that place-based scholars were having at the time of publication.

Gruenewald and Smith (2008) authored the last chapter entitled “creating a movement to ground learning in place” (p. 345). Such a movement offers an alternative vision to contrast to globalization. Gruenewald and Smith (2008) stated, “we believe that

the future of humanity will once more be tied to the emergence of diverse, regional societies grounded in unique possibilities of their own locales” (p. 357). Scholars can point to the growing problems of mass pollution, climate change, and environmental degradation as a way to link education and the need for exploring alternative ways of thinking and living. In connecting school to society, Gruenewald and Smith see youth and educators as the key to change, “it is to people on the margins that this volume is addressed” (2008, p. 346). Such a statement directs our attention to critical dimensions of place. It is in recognizing a need for an alternative that place-based education was recast in the light of critical thought.

David Gruenewald (2003b) forwarded a critical pedagogy of place and argued for a synthesis between critical pedagogy and place-based education, “a critical pedagogy of place aims to (a) identify, recover, and create material spaces and places that teach us how to live well in our total environments (reinhabitation); and (b) identify and change ways of thinking that injure and exploit other people and places (decolonization)” (p. 9). Decolonization and reinhabitation represent the social and ecological frames needed to address justice priorities. He cited Smith and Katz (1993) to understand the term decolonizing as it serves as a spatial metaphor for dislodging dominant ideas, assumptions and ideologies (p. 9). Gruenewald drew from Bowers (2001) for his definition of reinhabitation as it, “will depend on identifying, affirming, conserving, and creating those forms of cultural knowledge that nurture and protect people and ecosystems” (Gruenewald, 2003b, p. 9). Gruenewald critiqued the environmental movement for its failure to emphasize the revolutionary change or transformation needed to include the examination of the interactions between peoples and ecosystems (p. 5).

Gruenewald (2003b) labeled Sobel's approach to PBE as, "a discourse of rooted, empathetic experience" (p. 8) and in doing so criticized some environmental education approaches for their failure to analyze the roots of the ecological crisis located within human society (see, Leopold, 1966; Orr, 1992; Mayer & Frantz, 2004; Louv, 2006). The social inequalities present in the world and the ecological crisis are closely linked; both critical pedagogies and place-based education can strengthen each other by borrowing from the other. According to Gruenewald, ecologically damaging cultural patterns need to be transformed. A critical pedagogy of place must promote critical questioning of human's effects on the world in order to transform social and ecological injustices. Beyond empathetic experiences, Gruenewald noted that critical pedagogies, which focus on decolonizing and reinhabitation, could reject and resist social and ecological injustices as well as recover and renew socially and ecologically just practices.

Bowers (2008), in an article entitled, "Why a critical pedagogy of place is an oxymoron," argued against aligning place-based education with critical pedagogies. Bowers argued that a failure to grasp the nature and complexity of cultural traditions means that proponents of critical pedagogies of place may overlook the resources and characteristics that intergenerational traditions hold. Bowers (2008) argued that the desire of critical pedagogues for transformation would displace any efforts to retain local knowledge, creating an oxymoron for place-based practitioners. Bowers asserted that local knowledges, which need to be conserved, are the very resources that place-based education must draw out as opposed to transform. Bowers explained how language could potentially undermine critical pedagogies of place: "the context-free uses of language that characterizes both how critical pedagogy and place-based education are supposedly

complementary processes is key to understanding why, when fused together, a critical pedagogy of place is an oxymoron” (p. 330). Despite the debate surrounding critical pedagogies of place, notions of place-based education are continuing to evolve in formal schooling contexts.

More recently, Smith and Sobel (2010) have characterized place-based pedagogies as being, “mediated through embodied, relational, and experiential contexts” (p. 19). An impactful pedagogy of place exposes students to the local community and environment consistent with the “hands-on, real-world” (Smith, 2004, as cited in Smith and Sobel, 2010, p. 23) experiences that students face outside of school. Smith and Sobel reaffirm their previous writings, with special consideration given to formal education and PBE capacity to meet curricular objectives. By offering examples, curricular insights, and school organization models, this book has found success as an entry point for teachers hoping to employ place-based education in their practice.

Such a discussion of PBE contributes to the overall goal of understanding the landscape of the PBE watershed. This section highlights how PBE has been conceptualized to integrate both the community as well as the local environment within education to promote real-world, hands-on learning. Gruenewald (2003b) posited that a critical pedagogy of place must strive toward decolonizing and reinhabiting local places. Although such a claim has been met with resistance (Bowers, 2008) critical pedagogies warrant review as a stream in the PBE landscape.

Critical Pedagogies

The roots of critical pedagogies lie within critical theory. Max Horkheimer (1970) stated classical philosophy’s guiding principle, that nothing should be accepted by

custom or practiced uncritically, and pointed to this premise being disregarded in general culture (p. 257). The diffusion of cultural institutions has seen forces of intellectual growth decline despite the progress of science and industry (p. 259). Horkheimer called for a renewed critique to assess the larger social milieu. The Brazilian literacy educator Paulo Freire (1989) later crystallized how education would operationalize critical theory.

Freire (1989) is broadly considered as one of the originators of critical pedagogy. His framework is characterized as an emancipatory ontology rooted in historical realism. For Freire, society was trapped in a twofold struggle between the oppressors and oppressed. This struggle was transplanted into peoples' consciousness, by which both the oppressors and oppressed are manifestations of dehumanization. Praxis, defined as the reflection upon the world in order to transform it through action, brought about interdependence between objectivity and subjectivity (1989, p.11). Freire's conception of praxis was nested within the larger context of his dialogical pedagogy. A dialogical pedagogy is an alternative to common forms of learning and can be explained in juxtaposition to Freire's banking model of education.

Contrasting the relationship between teachers and students in a dichotomy, the banking model contained contradictions about reality: "man [sic] is merely *in* the world, not *with* the world or with others; man [sic] is spectator, not re-creator" (Freire, 1989, p. 62). The banking model of education conceptualizes the students as passive recipients of knowledge, or as spectators. A student as spectator is a devious metaphor intended to make students' believe in teachers as experts. The teacher becomes the mediator of what students learn through a hierarchical power implicit in the teacher-student relationship where no space is provided for critical thought or inquiry. As an alternative, Freire

outlined a problem-posing pedagogy. Open dialogue, as a pedagogical practice, confronts the implicit power within the banking model of education. Problem-posing education promotes people to be teachers as well as learners in dialogical relationships.

The contributions of Paulo Freire are represented in Grundy's (1987) work, which outlined technical, practical, and critical curricular interests. Grundy revealed the underwritten assumptions informing curriculum: "it is the trick of ideology to make that which is cultural, and hence in principle susceptible to change, appear natural, and hence not open to change at all" (Grundy, 1987, p. 107). Grundy argued for the exposure of taken-for-granted assumptions present within curriculum. When notions of teaching and learning become solidified, the curriculum becomes 'natural' (perhaps normative) in the eyes of practitioners and learners.

Grundy (1987) outlined Habermas' (1972) knowledge-constitutive interests. Three human interests determine and shape what rationality becomes when privileged by groups: the technical (empirical analytic), the practical (historical-hermeneutical) and the emancipatory (critical). A brief outline of these orientations will aid in understanding its influences on curriculum. Often linked to the sciences and means of prediction, the technical interest is concerned with controlling and managing the environment. The practical interest works in understanding the environment in order to harmonize and interact with the world. The practical interest is grounded in the fundamental human need to live in and as a part of the world (Grundy, p. 13). After establishing the technical and practical interest, Grundy posited the critical interest as the highest order for curriculum makers.

The critical interest was in-line with what Freire described as freedom from an objectified reality (Grundy, 1987, p. 16). It radiates autonomy and responsibility in a way that the technical and practical interests fail to strive towards, “freeing persons from the coercion of the technical and the possible deceit of the practical” (p. 17). The deceit of the practical is the acceptance of dominant and damaging discourse or taking something that is cultural as something that is natural. Grundy devoted attention to the critical interest and the concept of praxis to develop her argument. Advancing the idea of praxis, Grundy noted, “a fundamental interest in emancipation and empowerment to engage in autonomous action arising out of authentic, critical insights into the social construction of human society” (p. 17). Critical thought depended upon one’s capacity to reflect upon the human condition through a lens independent from the technical and practical interests. And while critical thought rests upon reflection for the sake of transformation, Indigenous scholars show how such universal concepts have damaged more contextual, emancipatory approaches.

Sandy Grande’s (2004) *Red Pedagogy* intersects the fields of Indian education, critical theory/pedagogy and education in an American context. Within Grande’s text are references to other notable critical pedagogy scholars (McLaren, 2000, 2003; Giroux, 2001, 2003) as well as other Marxist and sociological influences. Grande’s term Red Pedagogy contrasts Indigenous thought to existing forms of critical pedagogies. Grande called for reflexivity regarding contextual questions and perspectives through a plurality of epistemic frames (2004, p. 28). This acknowledges the different ways of knowing between groups, especially as it pertains to the various worldviews of Indigenous peoples. The historically formed realities of Indigenous “domestic dependent nations” in

the United States requires Indigenous voices to decolonize marginalization and oppression. Put otherwise, Grande asked the question, “can democracy be built upon the bloody soils of genocide?” (2004, p. 29).

A red pedagogy conceptualized Indigenous emancipatory politics (Grande, 2004, p. 35). And while Marxist thought exposed the links between colonialist forces and capitalism, Grande argued for the presences of Indigenous emancipatory ways of knowing:

A Red pedagogy is historically grounded in local and tribal narratives, intellectually informed by ancestral ways of knowing, politically centered in issues of sovereignty, and morally inspired by the deep connections among the earth, its beings, and the spirit world. (p. 35)

Grande traced the history of democratically induced oppression through organizing myths of unity, discourses of discovery, and the Indian Removal Act, Dawes Act, and the Indian Reorganization Act. Stripped of traditional Indigenous organizational structures and knowledges, Grande highlights how reliance upon Western paradigms retains essentialist and hegemonic standards of emancipatory education.

Grande reflected upon critical pedagogies’ allegiance to Western knowledges, which do not necessarily align paradigmatically with Indigenous knowledges. Furthermore, the inherent assumptions of existing critical pedagogies further inflict damages upon Indigenous groups. Grande (2004) discussed feminism as it contributed to the colonial project and introduces the theory of *indigenista*. Citing bell hooks (1989), Grande pointed to the growing divide between white and subaltern women in society (Grande, p. 125). This tendency allowed white feminists to reduce issues of race and

class to a common form of patriarchy, “thus, it isn’t that the feminist discourse has intrinsically diversified, but rather has simply evolved to be more pluralistic, ‘inviting’ different voices at the same time the existing axes of power are retained” (p. 126).

Grande’s theory of Indigenista comes from the notion that Indigenous and traditional societies generally did not struggle with patriarchal forms of dominance and oppression and that it is a “widely shared belief that American Indian women do not need feminism” (Bataille & Sands, 1984, cited in Grande, 2004, 149).

Grande (2004) does not argue gender relations are now symmetrical given years of colonialism and patriarchal oppression; rather, Grande’s work offered a critical framework through which Indigenous politics, self-determination, and systemic colonial forces can be analyzed. Grande’s Red pedagogy calls for self-determination and the inclusion of Indigenous conceptualizations of emancipation. How such calls are taken up (or not) within schools warrants a critique of the formal education system.

The institution of education has been subject to the criticisms leveled by critical scholars, given the hegemonic discourses of globalization, individualization, and economic development present in schooling. Teachers, administrators, policy creators, and government officials are some of the voices containing a high degree of power – something that should not be forgotten when focusing on education that occurs outside the classroom. And while understandings of normalcy and privilege are “hidden” in the structures of classrooms, and curricular content may be more readily challenged outside normal school structures critical pedagogies are valuable because they illuminate dominant ideologies that frame what a classroom is. A critical framework, such as a critical race analysis, offers a way to challenge the effects of dominant ideologies and

colonization. St. Denis challenged the effects and processes of racialization within Aboriginal education: “through implicit and explicit designations of Aboriginal people and their use of the land as inferior to that of colonizer/settler, the racialization of Aboriginal people justified and continues to justify the colonization of Aboriginal people and their lands” (2007, p. 1071-1072). The fields of Aboriginal education, critical pedagogies and place-based education are a convergence, which serves to introduce the final stream of the PBE watershed: land-based education.

Land-based Education

In addition to including land-based education (LBE) as a stream in the PBE watershed, it is key to acknowledge the physical land upon which society (as well as any watershed) resides. Such an acknowledgement extends to the thousands of years of traditional Indigenous approaches to holistic, integrative, and interconnected education (Cajete, 1994; Barnhardt & Kawagley, 2005; Barnhardt, 2008). Land-based education (LBE) characterizes a specific body of literature to enter the PBE landscape (Tuck, McKenzie & McCoy, 2014). Tuck, McKenzie, and McCoy (2014) noted the term land also signifies other elements (air, water, etc.) that are interrelated within the natural world. Land-based education is also buttressed by other efforts to decolonize education through acknowledging language, culture, and traditional worldviews in mainstream education (Battiste, 2013). Dominant discourses within Western research, such as the prevalence of Eurocentric knowledge and colonial understandings, are also addressed through an international effort to connect Indigenous knowledges to scholarship (Wilson, 2008; Smith, 2011). Varying methodological and paradigmatic arguments highlight differing epistemological, ontological, and axiological realities within the philosophies of

Indigenous thought. Indigenous scholars continue to articulate and sustain pathways to decolonize research processes, languages, and frameworks. As such, LBE emerges from a decolonizing and Indigenizing movement that involves theories ranging from critical analysis of race, class, and gender to Indigenous cosmologies to international perspectives on Indigenous land rights and agency (2014, p. 13). For the purposes of this review, LBE literature that intersects field of PBE will be discussed.

In an introduction to a special issue of land education, Tuck, McKenzie & McCoy (2014) noted the need for post-colonial, Indigenous voices in regards to PBE. They warranted, “though earnest in attempts to acknowledge colonial histories of particular places, the place-based and broader environmental education literature has replicated some of the very problematic assumptions and imperatives of settler colonialism” (p. 15). In asking how place-based education has positioned itself to address colonial injustices, Tuck, McKenzie and McCoy drew from theorizations of *settler* colonialism, defined as a form of colonization in which outsiders inhabit and extract resources from land held by Indigenous peoples so as to claim it as their new home (p. 6). Settler colonialism ‘works’ by making Indigenous land into property (p. 7). They offered this direction for the stream of LBE: “land education calls into question educational practices and theories that justify settler occupation of stolen land, or encourage the replacement of Indigenous peoples and relations to land with settlers and relations to property” (p. 8). Land-based education is important to PBE in its prompt for practitioners to engage with the impacts of settler colonialism.

Delores Calderon (2014) suggested how land education impacts place-based education by addressing issues of settler colonialism inherent in place-based pedagogies.

Such an approach is described in Gruenewald's (2003b) aforementioned work and termed a "step in the right direction" (2014, p. 26). Calderon posited that a critical pedagogy of place needs to go further and connect PBE to the genocide of Indigenous peoples and the propagation of settler colonialism (2014, p. 26). Calderon considered how Indigenous knowledge might illuminate the presence of settler colonialism in popular iterations of PBE. Land education problematizes the relationship between land and settler colonialism.

Calderon (2014) outlined instances unhinging settler colonialism through such methods as the politics of naming, political analysis, as well as defining decolonizing and reinhabitation of places. Calderon, drawing from Peña (1998), stated that reinhabitation "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 in Calderon, 2014, p. 27). Built upon Indigenous scholarship, LBE is rooted in the notion that all places were once (and continue to be) Indigenous. It follows that Indigenous worldviews and cosmologies are "many times [the] most viable knowledge systems related to place-based goals of critical sustainability, community building, and addressing issues of territoriality" (p. 27). As such, land is a common ground, central to identity formation. Educators can draw upon western and Indigenous frameworks to decolonize understandings of places.

Calderon defines decolonization as uncovering how settler colonial projects are maintained and reproduced. Education models and curriculum, including many place-based models, continue to produce colonial understandings of settler identity and need to be decolonized (2014, p. 25). Calderon discussed key categories of settler identity construction in social studies curriculum and showed how settler nationalism, White

supremacy, and territoriality are the dominant features of settler colonialism. Adopting a land education framework within the context of settler ideology will disrupt such settler identities (p. 33). Where many PBE scholars argued for starting inquiry with local issues (Sobel, 2004; Smith & Sobel, 2010), Calderon argued that PBE must start with a decolonization of the local (2014, p. 28). With many teachers and students residing in cities, methods regarding land-based approaches within urban contexts are needed to facilitate this process.

Evelyn Peters and Chris Andersen's (2013) *Indigenous in the City* navigates Indigenous identities in urban settings as to bring clarity to the diverse and complex realities lived by urban Indigenous populations. The book explores Indigenous identities in relation to tribal communities as well as urban contexts, "viewing non-urban tribal communities as the primary influence on Indigenous peoples' lives in cities misses the complex ways in and through which Indigenous peoples selectively interact with urban societies to create meaningful lives in cities" (p. 9). The Canadian census data proves the growing pattern of Aboriginal urbanization and challenges the myth that Indigenous identities are "lost" when people move to the city. The growth of urban Aboriginal populations in Canada has not resulted in a loss of culture for urban Aboriginals, despite the western thought "that holds urban and Aboriginal cultures to be incompatible" (2013, p. 30). Rather, distinct urban identities in relation to Aboriginal political bodies, Aboriginal institutions, and informal networks continue to frame ways in which peoples can define their Aboriginality in urban contexts. Norris, Clatworthy, and Peters (2013) call for Aboriginal places to serve as a basis for the "maintenance and redefinition" of Aboriginal cultures within the broad patterns of urbanization while at the same time

recognizing the dynamics of local contexts as well as subgroups within the Aboriginal population (p. 43).

Bang et al. (2014) offers a historical analysis that moves beyond, “common narratives of assimilated and landless urban Indians [sic] toward longer views of our communities and our homelands not enclosed by colonial timeframes” (p. 39). Such awareness acknowledges that teaching and learning about the natural world through place-based frameworks do not always acknowledge decolonizing practices. Further, Bang et al. (2014) posited, “place-based education... are critical sites of struggle because they typically reify the epistemic, ontological, and axiological issues that have shaped Indigenous histories” (p. 39). Because PBE has the potential to perpetuate settler colonialism, Bang et al. (2014) theorized ‘zero point epistemology’ to account for legitimization of settler knowledges at the expense of an Indigenous ‘presence’ (p. 41). A zero point epistemology denies all other perspectives and determines certain places labeled as Indigenous while others continue to legitimize settler colonialism’s perspective towards place (p.41).

While place-based authors work towards non-anthropocentric viewpoints, Bang et al. (2014) suggest that western frameworks construct experiences as either separate or different from the natural world. As such, place-consciousness still revolves around ‘zero-point epistemology’ and results in a nature/culture epistemic divide and anthropocentric consequences (p. 44). Places and lands that are relegated to the backdrop of consciousness damage human/land relations because of “the way in which Indigenous epistemologies and ontologies are denied” (p. 44). The article focused upon a community-based design research project in Chicago that worked with informal

organizations to seek out plants and wetlands. Such *restorying* of Chicago through a land-based framework resulted in two notable insights for the authors: the establishment of Chicago as a transportation hub and the filling in of the wetlands inherent to the area, as well as the Western designation between neglected land and land used for aiding conservation. Because scant attention was paid to the neglected land from a Western perspective, plants and water from the returning wetland could restory the area without the disturbance of “conservation efforts” (p. 48). Put differently, the “neglected” land provided for land-based approaches flourish in a way that Western “conservation” efforts obstructed Indigenous epistemologies and ontologies.

Tracy Friedel examined urban Native youths’ cultured response to Western-oriented non-formal, place-based learning. In doing so, Friedel illuminated Western notions of outdoor, environmental programming and *how* Native youth respond to Western forms of place-based learning (2011, p. 533). Friedel highlighted the trope of the ‘Ecological Indian’ as a stereotype, which blurred the complexities of Native youths’ lived realities. As such, attempts to ‘place’ Native identities in the environment, or ‘back to nature’ settings were dismissed by Friedel for a wider understanding of Cajete’s (1994) larger ecological analysis that envisions youths as co-creators of culture. Such analysis transcends the perceptions of outdoor and environmental educators that seek to categorize the epistemological and ontological categories of ‘being Native’. Disrupting romanticized understandings of Indian-ness [sic] means expanding place-based discourses beyond Western notions of nature and calls forward historical accounts of Indigenous expression (p. 539). Friedel noted the “growing wave of non-formal learning as an immensely important aspect of an Indigenous resurgence, prompted by pursuance of a good life, in

Cree, *miyo-pimâtisiwin*, in contexts much less volatile, hostile or structured than public schooling” (p. 539). Friedel takes up the divide between formal schooling and non-formal learning practices.

Friedel posited the importance of formal education economically and individually for Indigenous self-determination, but pointed to its failure in fostering values-based identities for Indigenous youth. Friedel defined orality as engagement with all of the community at all levels of experiences towards the aims of opening towards knowledge and guidance (p. 540). The measured categories of Western education failed to engage Native youth in the same manner. Such an insight served as a rejoinder to Western-oriented PBE. Youth’s responses to PBE are taken up by youth as both (a) a form of resistance to the colonial project and (b) as a desire for *miyo-pimâtisiwin*, or the good life (p. 541). Given formal schooling’s failures to facilitate such desires, Friedel called for heightened control over the content and process of non-formal educational programming (p. 541). Privileging Indigenous pedagogies in PBE alters the specific aims of programs as well as the manner in which youth engage in the activities.

Settler colonialism seeks to eradicate Indigenous histories and presence by denying and destroying the intersection of Indigenous rights and culture within settler society. Settler colonialism occurs when outsiders come to land inhabited by Indigenous peoples and claim it as their own; however, it is more than destroying access to land. Rather, it seeks to destroy Indigenous peoples’ relationship to land and remove Indigenous peoples from land. PBE was conceptualized from a Western Eurocentric perspective, which did not address Indigenous relationships with the land and the intents of settler colonialism. In the recent iterations of PBE, these aspects are acknowledged.

The previously subterranean stream of LBE is now emerging and merging within the watershed of PBE.

Conclusion: Influences

This chapter has introduced literature that helped inform the field of place-based education. The terrain of the watershed helped to conceptualize the plurality of philosophical and historical antecedents to the field. The concepts, knowledge, and practices outlined in this chapter influenced an initial understanding of the foundations of PBE literature. Engaging with the metaphor of the watershed also allows for reflection upon the current state of our rivers and the life they support in Western Canada. Writer and naturalist Trevor Herriot (2014) tells a story about the Canadian author and conservationist Roderick Haig-Brown:

There is no accounting for the effect of one man's love for a river. When people asked Haig-Brown about his accomplishments as a conservationist, he always said that he had none, that all he had accomplished was a reputation as a conservationist and that the fish, birds, rivers, and forests he had tried to defend were still losing ground. (p. 91)

There is work to be done for practitioners who draw from literature representative of outdoor education, non-formal education, experiential learning, critical pedagogies, and land-based education. Hopefully, this chapter can inform efforts towards the restoration and maintenance of the ground that Haig-Brown felt was lost. PBE, itself a stream in this initial review, may offer a path forward for educators to address social and environmental issues in their local communities. PBE will be critically analyzed in more detail in chapter four.

Chapter 4: Critical Literature Review

Introduction

The critical literature review of place-based education is composed of two parts:

Part A is the chronological analysis, which organizes the literature around publication date. Three channels define this section. The environmental channel, the experiential channel, and the philosophical channel establish main tracts within PBE literature. In some instances, literature that deals strictly with the concept of place is introduced to help explain its impact on PBE. Part B is the thematic analysis, which organizes literature around identified currents. The varying contexts of PBE literature, curricular dimensions of PBE literature and finally debates surrounding critical pedagogies of place are detailed to be the main characteristics of PBE.

My time spent paddling and walking during the research process helped inform the literature review. I was able to teach and guide canoeing while simultaneously thinking through the metaphors of currents and channels. This helped me to think through new knowledge presented in the literature within a dynamic and relatable framework. When teaching canoeing, I was able to reflect upon the metaphor of watershed with learners and think through many of the experiential, philosophic, and environmental attributes of PBE. I also worked as a letter carrier while conducting the critical literature review. This gave me the opportunity to walk through urban settings for roughly six hours a day to orient myself to the landscape. Key books concerning walking and observing nature also informed my thinking about place (Berry, 2002; Dillard, 2007; Herriot, 2014; Merrick, 2010; Thoreau, 1993). Walking on my mail route helped me to

form connections across the urban landscape to process many of the arguments put forward in PBE literature.

Taken together, the chronological and thematic ordering of texts conceptualized the field of PBE within the metaphor of a watershed. This reflects my experiences teaching canoeing and also the presence of an encompassing ecosystem I observed while walking my mail routes. The process of manipulating the literature began first through an analysis of texts, which resulted in data being entered into a document analysis chart (Appendix A). Commonalities and differences detected across the cells were grouped and juxtaposed within metaphor to identify how best to relate the key aspects of the field. Both parts of this chapter are derived from following the methodology of a critical literature review (Imel, 2011) outlined in chapter two.

Part A: Chronological Analysis

Critical channels.

A chronological analysis traces the development of place-based education literature through time. The streams of outdoor education, non-formal education, experiential learning, critical pedagogies, place-based education, and land-based education, which were conceptualized as separate and distinct streams in the terrain of PBE are synthesized as interrelated enterprises within PBE literature. The chronological analysis shows the major developments within PBE literature in light of certain concepts, knowledges and practices pertaining to environmental education, phenomenological and psychological literatures, as well as post-colonial and post-structural critiques. Synthesizing the literature in this manner illuminates key characteristics within PBE literature that may not be readily available to practitioners. Before examining the

different chronological channels of PBE literature, I will discuss how PBE has been described in recent literature.

Recent reflections upon place-based education literature reveal clues about the development of the field over the past decade (for an earlier treatise see, Woodhouse & Knapp, 2000). Waite (2013) identified how school-based and community-oriented approaches within North American literature (Grunewald & Smith, 2008; Sobel, 2004; Smith & Sobel, 2010) differ from Australian literature, which the latter attends to place-responsive outdoor education (Brown, 2008; Wattachow & Brown, 2011; Hutson, 2010). In a UK context, Scotland has mandated education for sustainability to weave together themes of global citizenship, outdoor learning, and sustainable development. In this context, PBE is characterized as teaching and learning outdoors within a wider philosophy of curriculum implementation (Beames, Higgins, & Nicol, 2012).

Harrison (2010) also divided PBE literature into two areas: the American context (focused upon educational institutions embracing the local community and environment as part of the learning context) as well as the Australian and Canadian context (focused upon outdoor environmental education). Harrison (2010) summarized the human geographical writing on place (Relph, 1976; Tuan, 1974, 1977) and phenomenological influences (Heidegger, 1971; Casey, 1993) to conclude that PBE is defined as:

- a series of visits to one locality;
- a diverse, and increasingly participant-directed, experiential approach to understanding the place – through ecology, cultural history, geology, geography, place-names, story, interactions with local community, work projects and more...;

- an action research approach, where students direct and shape their own learning, contributing to the place in various immediate or long-term ways.

(p. 415)

It is appropriate for PBE scholars to characterize the field geographically given that the material place informs the practice; however, not all scholars categorize the literature in this sense.

Seawright (2014) envisioned three camps of place-based education: First, fostering a connection with community and environment through an ideal of enlightened localism in order to challenge assumptions about the natural world (i.e. Sobel, 2004; Orr, 1992). Second, critical perspectives challenge epistemic frameworks as well as perceptions of reality such as social and economic factors (i.e. Gruenewald, 2003b; Gruenewald & Smith, 2008). Third, Gardner (2014) pointed to Indigenous education literature (i.e. Cajete, 1994; Kawagley & Barnhardt, 2005) that carries pre-existing ethics of social and ecological sustainability (p. 560).

Showing how various scholars have defined the field highlights divergent emphases regarding the main topics of PBE literature. This is not problematic if rationalizing for variety across international contexts; however, in demarcating the main channels of the field, it is important to conceptualize the various emphases differently than has been done in the literature. The chronological portion of the review traces the development of PBE in light of important concepts, knowledges and practices.

Environmental channel.

The way the environment is conceptualized within place-based education literature highlights human presence within environmental problems, contextualizes the

human/nature divide as well as questions the objective epistemologies forwarded by Western science. The Orion Society, a non-profit organization that publishes resources to inspire cultural approaches to community and nature, began using the term "place-based" to broaden its approach to environmental education in the 1990s. The term was adopted to examine both natural and built environments near schools, and was "characterized as the pedagogy of community, the reintegration of the individual into her homeground and the restoration of the essential links between a person and her place" (Sobel, 2004, p. ii). The term reinhabitation draws from bioregionalism and the tradition of living within cultural and ecological regions (Snyder, 1990; Berg, 2005). As such, we find that the terrain of PBE extends beyond solely the streams that I included in chapter three to extend to other traditions like bioregionalism. David Gruenewald (2003b) drew the term from bioregionalists Berg and Dasmann (1990, p. 35-38; See Ho, 2016). While place-based education literature is aligned with the goals of environmental education, it distinguishes itself for its socioecological emphasis upon local ecosystems and communities.

The inclusion of both natural and built environments is a strategy to focus on the recurring need to address cultural and social issues as an intertwined approach alongside environmental issues. Heightened attention to non-formal education practices, critical pedagogies, and experiential education inform the rationale for distinguishing place-based education as an independent localized approach. Moreover, notable scholars describe PBE as a more inclusive approach than environmental education (Sobel, 2004, p. 9; Orr, 2005). Because the presence of humans within the environment is taken up in

environmental education literature in a significant way, how PBE differentiates itself from broader environmental approaches warrants examination.

Environmental educator William Stapp (1969) proposed that humans are an inseparable part of a system consisting of people, culture, and the biophysical environment. Stapp argued that an attitude of concern for the environment could motivate citizens to participate in problem solving. This premise was complicated by perceptions of the environment mediated by objective, scientific knowledge (Lucas, 1980). Two visions for environmental education emerged: the ethos of problem solving and real-world interactions contrasted with Western scientific education via textbook learning within classrooms. It should be noted that interactions that extend beyond the academy and partnerships between schools and communities remained an ideal for environmental education research and many environmental educators are aligned with PBE pedagogies (Gough, 2013, p. 41). If the problem-solving aims of environmental education were to be taken seriously, educational frameworks that address social inequalities would be needed to connect natural and built environments to include socioecological analysis. The relationship between PBE and environmental education has received attention within PBE literature.

Smith (2002) attributed cultural studies, nature studies, real-world problem solving, internships and entrepreneurial opportunities, and induction into community processes as transformative to mainstream education. Smith (2002) forwarded a close parallel in imagery and language to Freirian concepts of education:

A critical characteristic of place-based education is its emphasis on learning experience that allows students to become the creators of knowledge rather

than the consumers of knowledge created by others.... Student ownership and engagement are much more likely to emerge when the students have had the chance to participate in the creation of their own learning agendas.... Teachers in such settings act as experienced guides, co-learners, and brokers of community resources and learning possibilities. Their expertise lies not so much in their stored knowledge... as in their capacity to help students acquire the skills and dispositions of effective learners.... Teachers must become the creators of curriculum rather than the dispensers of curriculum developed by others. (p. 9-10)

The influence of social constructivist, inquiry-based, integrated, and emancipatory education enables PBE literature to better account for socioecological issues beyond the scope of objective, scientific understandings of knowledge and reality. The influence of critical pedagogies was recognized as compatible with place-based education. At the same time as Smith's (2002) work, the intersection between cultural analysis and outdoor, environmental education was also being explored in an Australian context (Payne, 2002). These simultaneous explorations would help foster the development of PBE in Australian and American contexts.

Ardoin (2006) argued that PBE must extend beyond Stapps' (1969) examination of biophysical environment to embrace psychological, sociocultural, political and economic factors in order to integrate a sense of place with real-world issues. Because place is often perceived through hegemonic processes, Ardoin (2006) called for PBE to extend beyond a physical (scientific) approach to include complex, multidimensional probes into the sociocultural, political, and economic dimensions of place. Stevenson

(2007) pointed to the inconsistency between environmental education in schools and its call to action outlined in the Belgrade Charter and Tbilisi Declaration.

Illustrating that the purpose and structure of schooling upholds anti-environmental norms, Stevenson (2007) argued: “the socially critical and political actions goals of environmental education are contrasted... with the uncritical role of schooling in maintaining the present social order” (2007, p. 139). The conflict between formal schooling and critical approaches to social and environmental issues represented in place-based education literature, while not dichotomous, requires renewed conversation in order to align progressive and emancipatory interests in schools. To do this, Smith (2007) argued that place-based education must undertake the problem-solving goals of environmental education in local contexts.

Smith stated that community-activist educators (where the community-school border is fluid) are needed to address reinhabitation and decolonization in schools. Building from Gruenewald (2003b), Smith (2007) remarked that decolonization is not explicitly dealt with in many schools, which may prefer the environmentally charged task of reinhabitation (p. 203). The two-fold focus upon decolonization and reinhabitation in schools create an emphasis upon cultural beliefs. Smith’s proposed that decolonization and reinhabitation correspond with environmental education’s need for transformative pedagogies while maintaining an ecological mindset.

Cole (2007) explored the types of knowledge and experiences that are included (excluded) from the discourses/pedagogies of environmental education. In order to educate about environmental systems, educators must examine the human histories that contextualize those systems to include social, political, racial constructs that give

meaning to educational processes and interactions with places. Cole highlighted the limitations of scientific environmental education to connect with sociocultural issues of race, class, gender, and justice. Cole argued that solely scientific understandings of environmental education delimit sociopolitical understandings that in fact inform how scientific processes are understood. Cole credited place-based education as a methodology to expand the limits of environmental education. The limiting process of Western scientific knowledge is echoed elsewhere.

Tooth and Renshaw (2009) drew upon social ecology to evoke connections to place: “it is this reconnecting with the world through the body, where knowledge is embodied experientially, physically, and sensually over time, that is allowing a new kind of pedagogy to emerge that is ideally suited to the age of sustainability” (p. 96). Drawing on Weil (1950), Tooth and Renshaw envisioned issues of sustainability to be more than intellectual constructs. Addressing sustainability issues requires practical, emotional and attentive ways of thinking (p. 102). Hill (2013) noted how many sustainability concepts were aligned with western scientific understandings of the term.

The nexus of place offers "significant promise for educational endeavors that seek to educate for a sustainable future" (Hill, 2013, p. 19). Hill viewed “love of the local” as improving the compatibility between place, experience, and the goals of sustainability education because local places offer more fertile educational experiences (p. 27-28). Hill nevertheless cautioned against focusing education within a local context: "it is difficult to know about complex global issues such as climate change and biodiversity loss experientially. It is also apparent that not all experiences of place are appropriate for meeting the goals of sustainability" (p. 29). Place-based education literature highlights

human presence within environmental problems, contextualizes the human/nature divide as well as questions the objective epistemologies forwarded by Western science. As Hill emphasized, experiences shape beliefs about place but can only be the starting point for complex and abstract issues. To understand how experiences are taken up in PBE literature, psychological and phenomenological literature is examined in the next channel.

Experiential channel.

If the environmental channel of this review broadens conceptualization of the environment, then how such environments are experienced requires deeper investigation. Psychological and phenomenological influences are framing the way experience is understood in place-based education literature. As Morehouse (2008) explained, “understanding place has been repeatedly supported as a phenomenological process” (p. 695; See, Relph, 1985; Tuan, 1977). Morehouse outlined how a phenomenological application of a critical pedagogy of place could be another step towards a wider acceptance and further integration of social dimensions within environmental education. Despite this call, psychological influences orient towards constructing individualized experience over social and communal issues.

Social psychologist Richard Stedman (2002) outlined the terms *sense of place* and *place attachment*. Gerard and Chick (2007) would later suggest that members of cultural groups socially construct place meanings mostly independent of the physical setting. The terms *place attachment* (the degree to which someone feels connected and related to a place), *place identity* (the degree to which someone identifies with a place, associates the place with their own sense of self), and *place dependence* (the degree to which the person depends on that place for the outcomes they seek, or the activities they do, rather than

other places) all emerged to describe the way place is constructed in relation to experience. Other scholars seek to show how the natural world is a nexus of connection and identity.

Education that promotes students' connectedness to nature has been shown to have a positive impact upon students. Frantz et al. (2005) wrote, "given the link between feeling connected to nature and pro-environmental actions, investigating factors that either promote or inhibit this sense of feeling connected to nature is critical" (cited in Ernst and Theimer, 2011, p. 581-582). Environmental psychology often describes the human-nature relationship to impact the affective domain as well as promote inclusion. Schultz (2002) offered three aspects to inclusion: caring (affective), connectedness (cognitive), and commitment (behavioral) (p. 580). His use of the term caring differs from Mayer and Frantz's (2004) meaning of connectedness to nature, which measured connectedness to nature as the "affective, experiential sense of oneness with the natural world" (2004, p. 504). Mayer and Frantz developed the Connectedness to Nature Scale (CNS) to measure one's affective sense of connectedness to nature through direct experience.

Mullins (2009) considered the effect that human movement has on the connection between using one's skill and environmental perception. He argued that functional skills within outdoor environments create a continual process of meaning (p. 238). This viewpoint diverged from landscape being conceptualized as a static backdrop and characterizes place attachment as continually shifting and developing. Bricker and In a study of whitewater recreationalists, Kersetter (2000) examined the correlation between skill specialization and place attachment to propose that place attachment is comprised of

place dependence and place identity. In the study, participants who demonstrated high levels of specialization indicated strong feelings toward place identity (p. 254).

Identifying with a particular place through specialization can help explain how longitudinal, project-based approaches to education align with place-based pedagogies.

PBE scholars draw from phenomenological literature to inform their approach to place. Gruenewald (2003) traced Casey's (1997) work on phenomenology to show the origins and development of place in postmodern cultural theory (Gruenewald, 2003, p. 622). Cannatella problematized current foundations of place thinking to show how phenomenological approaches can enhance the educational benefit of place. Pointing to an increasingly homogeneous education experience at schools and universities, Cannatella draws from Merleau-Ponty and Heidegger to argue current educational models of place deny local expressivity and dimensions to places (p. 624). Specifically, Cannatella argued against Aristotle's scientific objective approach to place because it relied solely upon topographical interpretations and consequently separated an embodied sense of being (p. 628). Cannatella (2007) argued that lived experiences of place, rather than abstractions of place, lend themselves to transformative education. He argued that embodied local places depend upon bringing out some of the depth of our lives, impacting what we experience and how we inhabit place (p. 624). For Cannatella, we derive much of our learning from our experience in place. Continued investigation into the aesthetic and phenomenological sense of being in place can be furthered in PBE scholarship.

While individualized conceptualizations of experience are key to unlocking learners' potential, communal and relational approaches to education are also

acknowledged in PBE literature. Hutson (2010) affirmed the concept of place does not have to come at the cost of focusing upon individualized pedagogies: "if adventure and challenge become reference points for learner-centered place-meaning, perhaps it would be possible to re-contextualize adventure as a means to learning about and responding to the needs of local places" (p.24). Place-based educators challenge individualized notions of experiential education as it has been conceived by outdoor environmental education (Hill, 2013). Drawing from historical cultural antecedents, which inform phenomenological understandings of place, place-based scholars are beginning to challenge individualized notions of education that understand place as decontextualized, universal space. Wattachow and Brown (2011) outline the differing perspective of the experience of nature in education:

Nature as an *arena* where students experience personal development through challenging activity; or nature as a *venue* or *landscape* that can be appreciated and encountered aesthetically and for which we should develop some affinity, or nature as an *environment* in need of sustainable management practices by humans. (p. 81)

Because the focus of experiential education is often upon personal development, little attention is given to cultural or societal experiences. That all three conceptualization of nature should be explored is often at odds with the commitment to individualized notions of experience.

Malone (2016) problematized the concept of child in nature movement, defined by an ethos of kids interacting within contained, local environments. Malone warranted that such an ethos failed to look past romantic notions of environmentalism. Malone

outlined romanticism as a conceptualizing nature as consumable for aesthetic purposes and capable of generating strong emotions. In this way, Malone viewed children as outside of nature, nature as inanimate, and childhood characterized as idealized as white, and middle-class (p 45). Drawing upon methodologies and new materialism and post-humanist readings of place (Tuck & McKenzie, 2015), Malone sought to disarm the romantic ideals of nature-based education.

Select place-based education literature has undoubtedly been informed by psychological and phenomenological influences. Little in the psychological literature orients experience in terms of social and communal issues. Morehouse's (2008) vision of a phenomenological application of PBE has remains under engaged. Given that experience is a main principle of PBE, the assumptions lingering in experiential education require localizing, socioecological critiques. Such articulations may help align experience with the goals of PBE. How such critiques may be theorized is considered in the next channel.

Philosophical channel.

Post-structural and post-colonial literature is examined for its presence in the field of place-based education. Bowers (2001) highlighted troublesome patterns within environmental education discourse. Because language organizes thought, unacknowledged root metaphors are ecologically problematic in today's society (p. 142). Bowers pointed to linear progress and anthropocentrism as the two most ecologically damaging root metaphors. Bowers (2001) includes these components of environmental education when he stated that patriarchy, anthropocentrism, subjective/rational individualism, mechanism, and progress, "provided the conceptual direction and moral

legitimacy to scientific inquiry” (p. 143). Bowers articulated his notion of eco-justice, which aimed to circumvent environmental education’s existing investments into individualized notions of progress and anthropocentrism. Bowers’ attention to language and metaphor was, “centered on understanding relationships within the larger households we call community and the natural environment” (2001, p. 33). This relational worldview is rooted in the metaphor of ecology, which orients and organizes one’s thought to see interaction and interdependence. Bowers argued modern understandings of the environment and science are imbued by root metaphors and continue to damage natural systems.

Brookes (2002) warranted that outdoor education is generalized and does not account for social, cultural, geographical, and historical differences present. Writing in an Australian context, Brookes warned of education programs participating in neo-colonialist understandings of 'the bush' that posit land as empty. Brookes argued that curriculum discourse maintains a universalized approach that diminishes the development of critical perspectives in outdoor education practice (p. 406). Citing Orr (1992), who participated in the creation of the PBE movement, Brookes anticipated that curriculum and geography be closely linked, but cautioned against such a link without first addressing colonizing language. In his article, Brookes identified that "an uncritical preference for universalist accounts of outdoor education was apparent in outdoor education discourse" (p. 413). Brookes highlighted how the methods, concepts, and knowledge of outdoor education must respond to post-colonial, ecological, and sociological analysis in order to develop critical interpretations of “the bush.”

Flynn, Kemp, and Perez (2009) highlighted Whiteness studies as they intersect with place-based education, revealing the implicit privilege experienced through the racial identities of Whiteness. Flynn, Kemp and Perez recognized widespread discomfort for educators when discussing race, ethnicity, gender, and culture. Rooting this article in place, Flynn, Kemp, and Perez addressed many of the generalizations made by school systems and cultures of teaching in order for practitioners to construct a local response. Positing this notion in constructivist approaches to the curriculum offers a pathway for students to question how local institutions function and social relationships shape experiences of privileged and marginalized groups (2009, p. 138). Cravey and Petit (2012) drew from feminist geography "to make localized structures of power visible, demonstrate their connections to wider frames of domination...and examine the effects of powers so as to denaturalize oppression and inequality" (p. 101). Drawing from Massey (2005), Cravey and Petit outlined how critical analysis of place can challenge students' taken-for-granted assumptions and connect them to feminist issues. Feminist geography, in theorizing place as "a process of events and a product of connections," revealed how place-boundaries are created and maintained in relation to women's identities' and circumstances when movement across such boundaries occurs (2012, p. 108). A personal connection to place can foster trans-disciplinary thinking about feminist perspectives while validating many attributes of critical pedagogies.

Johnson (2012) posited that Eurocentric knowledge divides nature and culture resulting in disconnection between cultural histories and places (p. 831). Johnson cited Buell (2001) to call for an engaged learning, "place is not just a noun but also a verb, and verb of action" (Johnson, 2012, p. 833). Johnson (2012) called for the erasure of the

binary between nature and culture and formed strong connection between place-based education and Indigenous education. Alternatively, Tuck and Yang (2012) take issue with social justice educators using the terminology of decolonization to address all forms of social inequality.

Rather, Tuck and Yang premised the definition of decolonization as the reparation of Indigenous land and life warranting that “decolonization does not have a synonym” (p. 3). In outlining many versions of colonialism (external, internal and settler colonialism), Tuck and Yang outlined settler moves to innocence or to “play Indian” to relieve settler guilt without giving up land, power, or privilege (p. 9). Henry (2014) provided the findings from a masters-based action research project focused upon decolonizing practices in Vancouver. Henry (2014) acknowledged the “use of reconciliation as an example of settlers moving towards innocence (p. 27). Autoethnographical in nature, Henry’s project highlights how White Settler educators are processing decolonization. An absence of Indigenous voice within the project brings into focus many of Tuck and Yang’s (2012) concerns about discourse of decolonization being conflated within social justice efforts.

Drawing upon W.E.B. du Bois, Franz Fanon and others, Seawright (2014) conducted a critical race analysis for PBE. Seawright contested PBE scholars’ claim that education has become placeless and wants to show how western epistemologies constitute places in relation to raced, classed, and gendered outcomes of dominant knowledge systems (p. 555). Seawright argued that settler traditions of place are constituted by normative habits and practices that have been passed down for generations. Such normative relations to place impact the potential of contemporary PBE

to achieve change given its enmeshment with anthropocentrism and patriarchy (2014, p. 556). A true account for place means shifting epistemological and ontological frameworks by which humans relate to the natural world to create more ecologically and socially just education.

Nakagawa and Payne (2015) pointed to an ongoing need for post-critical inquiry in environmental research by incorporating a range of theoretical and conceptual resources that work the boundaries, 'margins', and tensions that lie somewhere 'in-between' the spatially projected place/local and planet/global discourses. Place pedagogy favours 'place' as a nexus of two ideologies that are accompanied with dichotomous counterparts: ontological localism (contrasted with globalism) and epistemological objectivism (contrasted with subjectivism) (p. 149-150). Nakagawa and Payne's (2015) assertion that place pedagogy holds plural ontological and epistemological understandings of place affirms the Orion Society's earlier vision for PBE to contain "enlightened localism – a local /global dialectic that is sensitive to broader ecological and social relationships at the same time as it strengthens and deepens people's sense of community and land" (Sobel, 2004, p. ii). Nakagawa and Payne expand upon the Orion Society's vision to include fluid margins: where fluid subjectivity encounters objective "other" realities (often termed place).

Fluid margins account for both subjective self and objective place to form a hybrid semantic entity to challenge the dualism apparent within PBE literature discourse (local-global, objective-subjective). Accordingly, various spatialized layers of local and global projections are connected in learners' experience. Nakagawa and Payne (2015) premised that acknowledging the layers of experience creates previously

unacknowledged margins and tensions in the curriculum and pedagogical construction of learners' subjectivities and intersubjectivities (p. 151). Such work is a maturation of Payne (2002) previous scholarship before PBE literature became a reference point for localized outdoor environmental research.

Conclusion: Channels.

By synthesizing the literature chronologically, main channels of PBE literature capture key elements of the field. The chronological analysis highlighted the extent PBE literature reflects concepts in light of new knowledges, purposes, and methods. The problem-solving goals of environmental education within PBE literature have prompted a socioecological understanding of place. The influences of psychological and phenomenological literature help conceptualize how experience and place are understood to be mutually supportive. Lastly, language, history, and culture were main tenets of post-colonial and post-structural literature. This is the most recent development within PBE and perhaps most significant because it demands more robust conceptualizations of place. Still, key assumptions and omissions remain in the literature base. The thematic analysis will help conceptualize key contexts of PBE, outline curricular and critical debates, and then offer a discussion about cardinal themes found across PBE literature.

Part B: Thematic Analysis

Critical currents.

The main themes of place-based education literature were difficult to grasp because of the subject's diverse interpretations and contexts. For instance, alternative initiatives that share core characteristics of social and environmental education have rallied to the banner of PBE. Ray Barnhardt's contribution to Smith and Gruenewald's

(2008) book *Place-Based Education in the Global Age* detailing the Alaska Native Knowledge Network (ANKN) is one example of an initiative that has grown independent from PBE yet shares in its growing audience and appeal. Similarly, the ANKN and PBE share many pedagogical commonalities, “by shifting the focus in the curriculum from teaching/learning about cultural heritage as another subject to teaching/learning through the local culture as a foundation for all education, it is intended that all forms of knowledge, ways of knowing, and world views be recognized as equally valid, adaptable and complementary to one another in mutually beneficial ways” (ANKN, 1998, p. 3). ANKN’s alignment with place-based education illustrates how the boundaries of PBE are permeable and not always clear. The relationship between PBE and environmental education is also muddled.

Kahn (2010) pointed to diverse bodies of educational literature that all react differently to the ecological crisis. Kahn highlighted how ecological education, place-based education, humane education, holistic education, commons-based education, eco-justice, transformative education and peace education link forms of environmental literacy with the varieties of social and cultural literacies – what Kahn defines as ecoliteracy (p. 11). Kahn described how Ecopedagogy shares roots with the emancipatory framework of Freire and Illich alongside traditional ecological knowledge to advance many of the themes found across socioecological education literature – notably education for sustainable development. Kahn failed to problematize how the aforementioned literatures contributed towards, or differentiated from, his vision for the ecopedagogy movement. Smith and Sobel (2010) accounted for many social and environmental

education initiatives arising independent of PBE by saying: “PBE is the basket; it’s not an egg in the basket” (p. 150).

Because PBE can be the container of many methodological and pedagogical approaches to education, the differences found in various localized approaches to place-based education strengthen, not weaken, the literature base of PBE. I broke the various themes of place-based education literature into three major portions in the review: rural, urban and land-based contexts; curriculum and PBE; and critical pedagogies of place. A concluding portion summarizes the various themes across the three settings.

Rural, urban, and land-based contexts.

Each of rural, urban, and Indigenous (land-based) scholarship contains different ideas as to the educational significance of place. McInerney, Smyth and Down (2011) identified two pedagogical strands of place-based education: revitalizing the commons (rural contexts) and connecting schools and communities (urban contexts). In a rural context, PBE was developed to connect students to the economic realities of place and to transmit community values to retain young people (Shemah and Mactavish, 2009; Bartholomaeus, 2006). Paul Theobald used the term "place-conscious" in his work *Teaching the Commons* as "the lens for disciplinary engagement" through community-oriented approaches in rural and urban schools (1997, p. 132-137). Corbett (2009) made the connection between formal schooling and mobility out of rural areas to highlight an issue for rural education: the departure of young people and consequences upon rural society and rural places.

Curtiss and Theobald (2000) envisioned PBE as a way to connect young people to rural communities by using schools as a source of community renewal. Curtiss and

Theobald articulated constructivist understandings, which occur in the community, making place potentially the teacher and the topic. A concern for and connection to place as a means of caring for the commons – the natural systems and the cultural patterns and traditions – links place-based and rural education. Echoing this, The Harvard Graduate School of Education for the Rural Trust (1999a, 1999b), “concludes that as schools and communities work together to design curricular goals and strategies, students’ academic achievement improves, their interest in their community increases, teachers are more satisfied with their profession, and community members are more connected to the schools and students” (p. 18). Amidst widespread student alienation and disengagement from schooling (Frymer, 2005; McInerney, 2009; Smyth & McInerney, 2007), a compelling argument for PBE has developed around the need to bring schools and communities closer together in rural areas for enhanced student engagement and achievement.

The term pedagogies of place was first used to address issues of social justice in urban settings (Haymes, 1995). Many community-based approaches to urban education are worthwhile for practitioners interested in the topic, but the literature does not reflect many of the ecological themes integral to PBE (see, Comber, 2013; Horsford & Heilig, 2014; Miller, 2012). Lim (2012) echoed urban education literature by engaging youth through a connection to place. Drawing upon van Eijck and Roth’s (2010) notion of place as chronotope, Lim discussed historical considerations of place as it assists us to conceptualize place in its collective, political, and dialogical nature. Lim expanded on place-identity as it has impacted youth relating to issues of gentrification and immigration; “I [Lim] suggest historicity of place as a critical notion in place-based

education because it shapes our place identity and frames our perspective towards the place: how we view, assess, make sense, engage, and participate in place” (p. 900). Much of the urban education literature pertains to crafting the experiences within schools to reflect the possibilities for youth who are engaged in real-world issues, democratic processes, and other local opportunities. While urban education values connecting students to their respective communities, such claims are problematic when juxtaposed with the socioecological goals of PBE.

Derby, Piersol, and Blenkinsop (2015) challenged the role of neoliberalism in education to highlight that the “wilderness” we encounter in urban centres is qualitatively different from what is encountered in predominantly undomesticated areas. They argued that PBE couldn’t settle for solely "local" places given that the local is used by neoliberal forces as a form of isolationism. Derby, Piersol, and Blenkinsop were concerned that in responding superficially to the false dichotomy of nature and culture, place-based approaches risked furthering a neoliberal agenda that appropriates language in order to justify the continued exploitation of what remains of the “wilderness.” The term “wilderness” often supports the culturally determined destruction of natural areas within urban and rural areas populated by people (Cronon, 1995). Whether such a critique is merited depends upon the ways in which nature and culture are conceptualized in a given place. Still, Derby, Piersol and Blenkinsop’s (2015) point remains: a focus solely upon the local is detrimental because it fails to address global forces such as neoliberalism acting upon local places.

Land-based education (LBE) approaches offer important parallels for the field of place-based education. Built upon Indigenous scholarship, LBE premises that all places

were once (and continue to be) Indigenous. It follows that Indigenous worldviews and cosmologies are “many times [the] most viable knowledge systems related to place-based goals of critical sustainability, community building, and addressing issues of territoriality” (Calderon, 2014, p. 27). Taken up this way, land becomes central to identity formation and can draw upon western and Indigenous frameworks to decolonize understandings of places. Calderon defined decolonization as uncovering how settler colonial projects are maintained and reproduced. Education models and curriculum, including many place-based models, continue to produce colonial understandings of settler identity and need to be decolonized (p. 25).

Where many PBE scholars premise starting with the local (Sobel, 2004; Smith & Sobel, 2010), Calderon argues that PBE must start with a decolonization of the local (p. 28). Tuck, McKenzie, and McCoy (2014) note the need for post-colonial, Indigenous voices in regards to PBE. They stated, “though earnest in attempts to acknowledge colonial histories of particular places, the place-based and broader environmental education literature has replicated some of the very problematic assumptions and imperatives of settler colonialism” (2014, p. 15; see also Bang et al., 2014). Select authors offer pedagogical pathways for place-based scholarship to include and promote such attempts in light of Tuck, McKenzie, and McCoy’s call for post-colonial, Indigenous voices.

Scully (2012) examined the place-based themes of decolonization and reinhabitation to posit that PBE fosters Indigenous/non-Indigenous understandings of shared histories and contemporary realities. Madden (2015) synthesized twenty-three studies that analyze educators’ approaches to Indigenous education. Alongside traditional

models of learning, decolonizing pedagogies, and anti-racist education, Madden cited PBE resources as pedagogical pathways for Indigenous education. Such a review highlights the innovative possibilities as well as the divergences and potential tensions that guide teacher educators' inclusion of Indigenous pedagogies.

Styres, Haig-Brown, and Blimkie (2013) examined the possibilities when shifting pedagogy of land from (Northern) rural to (Southern) urban Canadian contexts. Noting the complex theorizations of land, Styres, Haig-Brown, and Blimkie showed how dominant Western understandings of place-based education has not accounted for Indigenous knowledges, epistemologies, and histories. Despite the criticism, they credited PBE as “extremely useful in bringing students back to a focus on local issues rather than concentrating solely on global or “other” people’s issues” (p. 38). Pedagogy of land, which stresses land-as-teacher, provided “Aboriginal students (and others) in schools long overdue recognition of its [the land] significance” (p. 41). Since urban settings are layered with stories and divergent groups of people, it follows that everyone is connected through land to Indigenous peoples. This common ground between place- and land-based approaches serves as a useful connector for urban and rural places alike.

Curriculum and PBE.

Select literature connects PBE theory to practice through curricular approaches. Much of the literature concerning theory-practice connections and discrepancies is premised upon two assumptions: (1) PBE improves curriculum implementation; and (2) PBE addresses two gaps in the experience of many children in schools today: contact with the natural world and contact with their local community (Smith & Sobel, 2010, preface). Select authors (Jennings, Swidler, & Koliba, 2005; Lieberman & Hoody, 1998;

Powers, 2004; Sobel, 2004; Smith and Sobel, 2010) show curricular approaches to improve student engagement and achievement in addition to addressing social and ecological issues. Other authors (Mannion, Fenwick, & Lynch, 2013; Zandvliet, 2013; Hattam, Brennan, Zipin, & Comber, 2009) are concerned with how PBE interacts with pedagogy, assessment, and professional development research.

Lieberman and Hoody (1998) reported that understanding the environment as an integrating context increased student engagement. An integrating context “designates pedagogy that employs natural and socio-cultural environments as the context for learning” (p.1). The State Education Environmental Roundtable examined forty schools nationwide and “showed that when the environment is used as an integrating context, student achievement and in-school behaviors improve” (p. 18). They report the effects of locally-based curriculum positively impacts student achievement and behavior. While the authors of this study measure achievement by standardized measures, it nonetheless reinforces the intuition of many educators practicing PBE. Underlying questions about socioeconomic statuses of schools, students, and available resources and support were not included when attributing the environment as having positive results on students.

Powers (2004) outlined the work of the Place-based Education Evaluation Collaborative (PEEC). Powers sought to demonstrate the effectiveness of place-based education within formal education settings: “existing evaluations of place-based programming show strong promise for improving student learning and community engagement, and closely related research has demonstrated that students who are engaged in real-world learning are more likely to succeed than are those who learn equivalent material from more abstract textbooks” (p. 18). In addition to showing the competency of

students who enrolled in place-based programming, a key component of PBE is bolstering civic engagement. Forming a powerful link between academic studies and student engagement, Powers outlined the goals of PEEC to evaluate place-based practices as well as strengthen the research base.

Jennings, Swidler, and Koliba (2005) questioned the relationship between standards-based reforms and place-based education in rural contexts. They note the role of education in rural areas is often presented as either to compete with global markets or to care for local places. In framing educational reform to ensure the inclusion of PBE in curriculum, Jennings, Swidler, and Koliba asserted PBE as complementary/similar to disciplinary approaches to the curriculum (p. 55). Although they acknowledged wider dimensions of school reform such as the role of policy in shaping curricular implementation for practitioners, the article may be contentious for its justification of PBE within current educational models, as an “add-and-stir” conception to include PBE in classroom structures. The divide between the qualitative understandings of PBE and empirical measurements is evidenced in this article, whereby the influences of outdoor, experiential, and critical education are tied to standards-based curricular goals.

Zandvliet (2013) highlighted literature pertaining to assessment in and of environmental programming and argued that it may help practitioners looking to understand the benefits of teaching through the natural world (Ferreira, 2012; Karagatzides et al, 2011; Kemmis & Mutton, 2012; Larese-Casanova, 2011). Zandvliet (2013) builds from environment research that describes “the potentially positive effects of a place-based education” (Zandvliet, 2013, p. 20). Zandvliet focused upon learning environments to understand psychological and social components of educational

experiences. An overview of two instruments in the form of surveys, Zandvliet outlined PLACES (psychosocial) and SPACES (physical) as instruments to discover the psychosocial/physical factors that influence learning and attitudes towards post-secondary environmental education settings (p. 28). A mixed-methods approach (questionnaire and focus group) gauges complex psychosocial and physical dimensions present in learning environments. Drawing on the response of 160 pre-service teachers from an environmental education course, the results may help to "identify empirical relationships among subject matter (curriculum), teaching practices, and environmental variables" (p. 19). Zandvliet surmised that lack of empirical data has left PBE at a disadvantage, and hopes to translate the positive effects of PBE (and the like) into terms that can be interpreted more readily by existing accountability structures.

Critical pedagogies of place.

According to Gruenewald (2003b) a critical pedagogy of place aims to "(a) identify, recover, and create material spaces and places that teach us how to live well in our total environments (reinhabitation); and (b) identify and change ways of thinking that injure and exploit other people and places (decolonization)" (p. 9). This portion of the review will explore the scholarship revolving around the aims of critical pedagogies of place. First, I will detail Gruenewald's (2003b) understanding of critical pedagogy of place. To do this, select manuscripts (Gruenewald, 2003c, 2004, 2008) are explored to contextualize critical pedagogies of place. Criticism and alternative understandings about Gruenewald's work are then discussed as they are represented in debates in the literature (Bowers, 2008; Stevenson, 2008; Gruenewald, 2008).

David Greenwood (formerly Gruenewald) is a Canada Research Chair in Environmental Education and Associate Professor at Lakehead University and he was the person responsible for the term “The Best of Both Worlds” as he attempted to combine PBE with critical pedagogy. Gruenewald called for critical pedagogies to “expand its socio-cultural analyses and agendas for transformation to include an examination of the interactions between cultures and ecosystems” (2003b, p. 5). Exactly how cultural and ecological systems interact is inherently contextual and place-dependent. Despite this complexity, outlining a framework that synthesizes social and ecological issues has tremendous educational potential. Critical pedagogies of place seek to make explicit the connection between social and environmental dimensions of place; however, questions arise about the clarity of such connections. Smith and Sobel (2010) make reference to Gruenewald’s (2003b) work to introduce Freire’s term *conscientizacao* as “learning to perceive social, political, and economic contradictions and to take action against the oppressive elements of reality” (p. 2). Smith and Sobel’s inclusion of a critical framework depends largely on Gruenewald’s account of the conscious synthesis between critical pedagogies and place-based education. Notably, not all scholars agree upon Gruenewald’s description of such a synthesis – something Gruenewald admits is inherently complex. Clarity regarding the process of synthesizing the social and environmental domains will help place-based educators fulfill the promise of critical pedagogies of place.

While many point to Gruenewald’s (2003b) publication “The best of both worlds: A critical pedagogy of place” to understand the socioecological dimensions of place-based education, Gruenewald’s other manuscripts reveal the role of language in shaping

how PBE promotes cultural and ecological sustainability. Outlining the power of discourse in sustaining anti-environmental practices in education, policy, and pedagogy, Gruenewald (2003c) showed how the development of writing helped devolve humans' senses and awareness of the (non-human) world. That language is distant from its origins, Gruenewald stated, "direct experience with phenomena has been replaced by representation in word, image and computer code" (2003c, p. 38). Language, cut off from its roots in nature, "becomes a tool for anthropocentric, individualistic human pursuits" (p. 38). This goes against Orr's (1992) call to read the world ecologically amidst rooted, empathetic experiences with which nature helps shape learners' identities. Taken up this way, language can help learners to make sense of their experiences and surroundings. When we make experience with nature an achievement to be measured through disciplines and philosophies, "the importance of experience, perception, and the development of empathetic connection is marginalized and sometimes even ridiculed" (Gruenewald, 2003c, p. 39).

In addition to shaping experiences, language is important in shaping policy and school reform. According to Gruenewald (2004), "even some of those ecological educators committed to deep cultural change have established a discourse that seriously underplays the connection between human social (cultural, economic, political) experience and ecological concerns" (p. 89). Gruenewald draws from Bowers (2001) to detect hegemonic discourses that depoliticize education: "environmental education requires a science that is neither politically naïve nor disciplined by powerful political forces" (2004, p. 85). Gruenewald highlights the sustaining power of discourse as it promotes anthropocentrism, individualism, and progress as an underlying metaphor in

education, “the disciplinary power of science, therefore, depends in part on its embeddedness in the pervasive root metaphor of progress” (p. 87). Highlighting the power of metaphor helps to show how knowledge and truth get produced and legitimized. The problem then, “is not changing people’s consciousness - or what’s in their heads - but the political, economic, institutional regime of the production of truth (Foucault, 1980, p. 133)” (Gruenewald, 2004, p. 87). Seen in this light, policy has the power to reorient the purpose of education to align with the preparation for economic competition. Often, this discourse is translated into education as a set of conventional standards, accountability structures, and standardization upheld by a commitment to disciplinary practice that conforms to conventional and anti-environmental aims of education.

Decolonization and reinhabitation are terms that reflect the social and ecological frames that make up critical pedagogies of place. Gruenewald (2003b) presented the ecological and social goals as being “two dimensions of the same task” (p. 9). Transformation (the goal of decolonization) and conservation (the goal of reinhabitation) serve as metaphors that help clarify the distinctive, socio-ecological emphasis of a critical pedagogy of place. Gruenewald offered the traditions and definitions of decolonization and reinhabitation to better frame critical pedagogies of place. To define reinhabitation, Gruenewald outlines the influences of bioregionalism and ecological educators (many involved in the genesis of PBE). He relied upon Chet Bowers (2001) for his definition: “wherever one lives, reinhabitation will depend on identifying, affirming, conserving, and creating those forms of cultural knowledge that nurture and protect people and ecosystems” (Gruenewald, 2003b, p. 9). In order to define decolonization, Gruenewald outlines many critical pedagogues’ central aim to resist and transform oppressive

realities. He cited Smith and Katz (1993): “‘decolonizing becomes a metaphor for the process of recognizing and dislodging dominant ideas, assumptions, and ideologies as externally imposed’ (p. 71)” (Gruenewald, 2003b, p. 9). The task for critical pedagogies of place is transforming that which is damaging and also conserving that which is healthy. The debate is to determine what is to be transformed and what is to be conserved.

Debates about critical pedagogies of place.

In his article, Gruenewald (2003b) accurately predicted a key critique of critical pedagogies of place. Gruenewald draws upon Bowers for his interpretation about the conservation aims of PBE. Gruenewald (2003b) frames Bowers’ main points in his work in reference to conserving cultural patterns: “critically embracing such knowledge [e.g. Indigenous knowledge, elder knowledge, ethnic knowledge, and local knowledge], Bower insists, is essential to conserving and creating cultural patterns that do not overshoot the sustaining capacities of natural systems” (p. 6). Gruenewald later openly echoes this critique of his own work when reasserting Bowers’ question: “‘what cultural patterns should be conserved or transformed to promote more ecologically sustainable communities’ (Bowers, 2001)” (Gruenewald, 2003b, p. 9). Critiquing what “cultural patterns” are aligned with the goals of critical pedagogies of place, Gruenewald anticipated Bowers’ argument that critical pedagogies will destroy the cultural commons necessary for reinhabitation to occur (See, “personal communication” in Gruenewald, 2003b, p. 10).

Whereas Gruenewald posits that decolonization and reinhabitation “are really two dimensions of the same task” (2003, p. 9), Bowers (2008) stated, “the nature of place-

based education has a more complex agenda than that of decolonization and reinhabitation” (p. 330). In doing so, Bowers critiqued critical pedagogues such as Freire, Giroux, and McLaren, as well as their influence upon critical pedagogies of place, for reinforcing root metaphors (such as progress and anthropocentrism) for privileging social analysis at the cost of related ecological analysis (see, Gruenewald, 2004, p. 87). It is worth noting that what might need to be transformed, according to Bowers, is the very basis of current belief systems (individualism, anthropocentrism, ownership, etc.). Bowers pointed to underwritten cultural assumptions inherent within critical pedagogies that reinforce root metaphors. He highlighted how these metaphors conceptualize change as inherently progressive and hold a conviction of cultural superiority (2008, pp. 325-326).

Bowers (2008) explained how shared silences and prejudices, along with shared cultural assumptions, have characterized Western philosophy (p. 327). Bowers outlined a Platonic understanding of pure thinking, “that is, the idea of that thinking, when rationally based, is free of the influence of the cultural epistemology encoded in the metaphorical language of the cultural group – and upon which the “thinker” relies and generally takes for granted” (p. 330). From the standpoint of Western epistemology, words and concepts carry universal meanings, and “the context-free use of language that characterizes both how critical pedagogy and place-based education are supposedly complementary processes is key to understanding why, when fused together, a critical pedagogy of place is an oxymoron” (p. 330). In summary, because Western thought is based in abstract language that universalizes rather than contextualizes, and place-based

education is about material contexts, then according to Bowers it is inherently contradictory to combine the two traditions.

For Bowers, Gruenewald's reliance upon Western notions of critical theory meant overlooking local intergenerational knowledge as a core tenet of place-based education (2008, p. 328). Bowers argued that without the qualifier of "conserve" (which Gruenewald drew from a phone conversation with Bowers), the term critical reflection could mean anything. Bowers warranted that Gruenewald's description of reinhabitation is shallow. Bowers (2008) draws from Geertz' notion of a thick description to reveal the terms decolonization and reinhabitation, when tied to critical pedagogies, may overlook existing cultural and traditional approaches. In stating, "universal prescriptions too often become a cultural colonizing agenda" (2008, p. 334), Bowers highlighted how scientific knowledge often fails in dealing with cultural issues for which educators "have little or no understanding" (p. 332). While scientific knowledge fails to address social issues, Bowers' argument generalizes practitioners to be ignorant of their communities, and assumes that "educators" hold no knowledge about cultural issues.

In a rejoinder, Greenwood (2008) noted how the differences of perspective help to enlarge the conceptual landscape of environmental education theory and suggests that Bowers' should not reject critical pedagogies. Stevenson (2008) disagreed with Bowers' critique and argued that the tensions should invoke further inquiry. He stated, "that these two traditions can be productively juxtaposed whereby their junctures and disjunctures can be revealed and used as a pedagogical space for authentic environmental and cultural learning by engaging students in constructing thick descriptions (as Bowers advocates)

and critical analyses of the places they inhabit” (p. 353). In the same issue, Morehouse (2008) replied:

Decolonization and reinhabitation are not opposed to the conservation of place, of existing culture, or irrespective of traditional perspectives and deep understanding of a place. Rather, critical pedagogies of place call for contextualized and localized approaches that respect the ecological, socio-cultural, politicoeconomic, and psychological framework of these places (p. 694).

In his decision to conflate critical pedagogies of place with destructive cultural practices, Bowers decided to position himself as a critic of critical pedagogies of place.

Gruenewald’s (2003b) work continues to serve as an important framework for social and ecological analysis (Calderon, 2014).

Conclusion: Currents.

The thematic portion of this review examined the urban, rural, and land-based contexts of PBE literature. Environmental historian William Cronon (1995) noted a wide trend in privileging certain places at the expense of others. Setting aside land deemed “natural” or “wilderness” is a turn of cultural construction that maintains barriers to connect social and ecological issues. Showing literature indicative of differing contexts highlighted how the concept and experience of place can be problematized if it does not account for issues outside local boundaries. The literature that examined curricular dimensions of PBE emphasized student engagement and achievement in relation to enact PBE within formal education. The Place-based Education Evaluation Collaborative (PEEC, 2012) website is perhaps the strongest resource for empirical-based

research/evaluation findings pertaining to curriculum implementation. Literature detailing critical pedagogies of place was introduced in light of post-structural frameworks. The debate about critical pedagogies of place, centered on decolonization and reinhabitation, has resonated with the aims of select land-based education literature. The thematic analysis has worked to present the seminal characteristics of the field of PBE.

Conclusion: Critical literature analysis

The chronological and thematic analysis provided a conceptualization of PBE within the metaphor of a watershed. The main channels in the literature detail environmental, experiential, and philosophical considerations within PBE literature. The varying contexts of PBE literature, curricular dimensions of PBE literature and finally debates surrounding critical pedagogies of place were the result of the thematic analysis. My perspective and position has changed as a result of conducting this critical literature review.

The process of closely reading PBE literature required an integration of new concepts into my pre-existing schema of meaning (Beane, 1997). In the introduction, I outlined how spending time in the natural world informed my identity and knowledge creation. Reflecting on that position, I have infused knowledge related to social and environmental justice, the consequences of settler colonialism, urban ecosystems, sustainability, as well as localized education into my perspective on place. Generally, I have found myself inquiring into the systemic causes that are currently impacting local places. I also now position myself emerging from a settler, Eurocentric tradition. This comes with growing awareness of the cultural and ecological loss experienced on the prairies in the past two centuries. In this way, another layer of meaning is added to the

metaphor of watershed: thinking “upstream” about the issues and problems facing local communities and ecosystems. In chapter five, I detail the main issues, or confluences, shaping the field of PBE.

Chapter 5: Discussion

Overview

Chapter five will present the findings of the research before discussing the meaning and connections from a critical literature review of place-based education. The chronological analysis traced the environmental, experiential, and philosophical channels in PBE literature while the thematic analysis revealed contextual, curricular, and critical dimensions of PBE literature. The organization of these sources emerged from the juxtapositions, connections, writings, and inferences constructed from data in an analysis chart (Appendix A). In total, over fifty sources were analyzed in the chart. Table 1 and Table 2 outline the names, publication dates, and countries that constitute the chronological and thematic ordering of the literature review. In examining the variables of the sources, nineteen of the manuscripts' authors were female and fifty-four of the manuscripts' authors were male. The publication dates ranged from 1997 to 2016. All of the literature originated from USA, Canada, UK, Australia, and New Zealand although select literature presented projects from or discussed other countries (e.g. Malone, 2016). Most of the literature identified in light of the research question was theoretical in nature. In this regard, there is more work to be done to uncover methodological, curricular, and policy-oriented literature pertaining to PBE.

Research findings

By synthesizing conceptual and theoretical research findings, this review can assist practitioners with theory-practice discrepancies. The review also exposed gaps in the literature between emancipatory and post-structural theoretical articles and the curricular and practice-oriented books published on the topic. Place-based education

could benefit from methodologies that connect theory to practice in observable and tangible ways. Action research frameworks, quantitative and empirical frameworks, as well as autoethnographic and narrative inquiry frameworks forwarded from enterprising practitioners could help actualize theoretical knowledge about PBE in practice. The absences of these frameworks constitute a gap in the literature. Another gap in the literature pertains to how little is known about the intersection between teacher education and PBE. A study that maps out the significant programs of teacher education, as well as determines the role of faculty, may reveal the landscape of PBE in higher education institutions.

In taking up how place-based education has been formed (and to what extent) from the streams of outdoor education, non-formal education, experiential learning, critical pedagogies, and land-based education, the findings were unable to uncover how these educational streams form PBE. The organization of the research (influences – critical literature review – confluences) provided alternative perspectives on the literature. Four main confluences emerged in the literature that will be taken up in the discussion: socioecological education; curricular implications; the effect of language and post-structuralism, and; Indigenous and Western knowledges. These findings are consistent with the purpose of Imel’s (2011) methodology. Imel outlined how a critical literature review: “can indicate a direction for future research in an area by pointing out gaps, highlighting central or unresolved issues, bridging related or disparate ideas, or providing new perspectives on the topic” (p. 145). While findings do not highlight the extent the education streams form PBE, I am able to draw conclusions about the field of PBE beyond the scope of the original research question. In order to expand on my

insights regarding the confluences within PBE literature, I will introduce pertinent literature from the fields of place-based education, social justice education, and environmental education research.

Confluences

This section compounds the categorization of literature presented in chapter four in order to highlight the potential meaning of the chronological and thematic analysis. Whereas I set out to determine the influence of various education streams upon PBE literature, I found instead confluences or the primary connective issues in the literature. The metaphor of confluence refers to the joining of place-based education literatures with previous research and wider considerations. While these confluences are indicative of the influences of PBE, it conceptually reconstructs from my research question to provide key insights. In this way, the presence (or lack) of confluences within PBE literature suggests something about the influences of PBE, albeit in a descriptive and suggestive, rather than empirical, manner.

Socioecological education: Culture-nature relationships

Gruenewald's (2003b) critical pedagogies of place highlighted the need for culturally- and historically-rooted approaches to place: "a focus upon a particular place collapses the illusion of boundaries between culture and nature" (Wattchow & Brown, 2011, p. 86). A confluence of its own, Gruenewald's (2003b) merger of social and environmental analysis has informed PBE literature in a variety of ways. Largely, literature that was rooted in the concerns of bioregionalism and the problem-solving ethos of environmental education (e.g. Smith & Sobel, 2010) has given little merit to the frameworks derived from critical pedagogies and social justice considerations. In PBE

literature that drew from social justice education (Flynn, Kemp & Perez, 2009; Cravey & Petit, 2012), PBE terminology and arguments are replicated without the inclusion of the ecological focus of reinhabitation. For example, Cravey and Petit's (2012) use of Foucault's panopticon mirrors Gruenewald's (2004) text. In addition, drawing upon social justice scholars Freire (1970/2000) and McLaren (2005) as well as geographic thinkers Relph (1976) and Casey (2009), Cravey and Petit's (2012) work denoted close parallels to the development of PBE literature without acknowledging PBE scholars explicitly. Akin to Bowers (2008), Flynn, Kemp, and Perez (2009) draw from Geertz' thick description and include critical pedagogues (i.e. Friere, 1989; Greene, 1988) to align with select PBE literature (i.e. Curtiss & Theobald, 2000) without discussing the intersection between social and ecological justice. In some cases, there is little to zero connection between social and ecological justice within select PBE texts.

The synthesis of social and ecological analysis illuminates deep assumptions about intersectionality of social and environmental issues a local level. When little connections are made across social and ecological issues in the text, it can be assumed that PBE is being used as vehicle for alternative interests than socioecological education. Such is Bowers (2008) fear that critical pedagogies of place are another form of privileging social concerns at the cost of ecological concerns. PBE is itself concerned with the intersection and connection of social and ecological analysis. The ways in which such intersections and connection occur is variable and contextual.

Focusing upon ecological knowledge can foster learning the values and empathy needed to live well within one's total environment. Wattachow and Brown (2011) cautioned against the idealistic goals of environmental education:

While the idea [of relationship with nature] is commendable, without consideration or acknowledgement of the place, culture, context or situation of an experience it could be argued that this is another form of colonialism, or new-colonialism perhaps. I am fearful that our colonial history has produced a blind-spot in how we seek to relate to ‘nature,’ for ‘nature’ is again subjugated to our desire for ‘mastery’ in our desire to connect to it. (Stewart, 2004, p. 47 cited in Wattchow and Brown, 2011, p. 89)

The environmental goals of PBE, which emphasize local ecologies, relationships, and conservation, risk inattention to the destructive social, cultural, and political forces operating silently underneath education frameworks. As Nespor (2008) argued, place-based education in general has avoided social analysis:

extensive literature on ethnicity, race, and place that could be brought to bear on educational issues.... The use of "diversity" as a substitute for engaging issues of race, class, and gender seems to be mainly a deficiency in Gruenewald's work. (p. 485)

Place-based education retains racialized undertones from previous environmental literature (Flynn, Kemp, and Perez, 2009; Seawright, 2014). Despite this, critical pedagogies of place provide frameworks for social analysis, even if Gruenewald himself avoids it. Gruenewald’s (2003b) initial treatise on decolonization and reinhabitation, taken up as “two dimensions of the same task,” (p. 9) is widely cited in the PBE literature. Given that impact, merging the environmental goals of PBE with the social justice goals of critical pedagogies requires application in the research base of PBE. It

may be that a heartfelt, conjoined analysis may problematize current approaches to place-based education. (e.g. Tuck & McKenzie, 2015). In addition to unresolved theoretical issues, effort to advance socioecological education also confronts many practical concerns.

As Nespor (2008) highlighted, an insistence on the local is a tool corporations and states use to subvert social and environmental justice efforts. Derby, Piersol, and Blenkinsop (2015) affirmed this insight to discuss how neo-liberalism is weakening place-based methods rooted in solely local questions and inquiry. The frequently cited example of local concerns is Aldo Leopold's (1949) verse: what is happening here, what has happened here, and what should happen here (See Derby, Piersol & Blenkinsop, 2015, p. 378). Critics of emancipatory frameworks warrant that the “difficult knowledge” (Hattam, Brennan, Zipin, & Comber, 2009) related to social and ecological disparity can harm young learners. Smith and Sobel (2010) argued that socioecological education be handled with care. They cautioned, “the danger of exposing children and youth to information about environmental problems without having first established a satisfying connection with the natural world and offered them opportunities to develop a sense of agency and voice” (p. 19). Hesitancy to embrace critical frameworks is understandable. Often, childhood is often understood as a time of innocence, which can mean that problematic issues are considered too difficult for early childhood practice. Such dilemmas may confront practitioners who are trying to enact PBE. Select authors do offer pathways for practitioners willing to localize and problematize socioecological education.

Duhn (2012) introduced a research project to discuss how early childhood education can contribute to theory and application of education for sustainability to

include an examination of social and ecological issues. In various ways place-based scholars have identified pedagogical pathways to blend the critical and experiential components of PBE. Chambers and Radbourne (2014) researched critical literacy to build capacity to make connections: "The... project explored teaching critical literacy skills (inferring, making connections, synthesizing, questioning, visualization, and summarization) utilizing the natural environment as the teaching text" (p. 123).

Theorizations about critical thinking, particularly developing the capacity to make connections between social and environmental categories, are represented in research data. Smith's (2002) subtle placing of critical pedagogies as an informal force in his work is a strategic decision to animate movements for critical perspectives without stifling progress due to challenging or coded language. As Brookfield (1993) posited, scholars can use concepts of kindness, collectivism, and democracy to induce people into critical modes of thinking.

The gap between social and ecological analysis is wider than assumed in PBE literature. This in part is due to conceptual complexity, pre-existing boundaries in approaching social and ecological issues, as well as personal and cultural reliance on normative approaches to education. Those willing to pursue the ideal of socioecological learning within one's local community are liable to confront these issues. There is no education outside experience, or as Dewey stated, "all studies grow out of relations in the one great common world" (1915, p. 32). Therefore, the connection between social and ecological realms is there to be uncovered and recognized rather than enforced or ignored. An effort to integrate PBE within curricular frameworks is the next confluence under review.

Curricular implications

The conflict between curricular and critical approaches to social and environmental issues represented in place-based education literature, while not dichotomous, requires renewed conversation in order to align progressive and emancipatory interests in schools. Connecting curricular approaches to PBE remains a gap in the field as it related to professional development, teacher education, as well as institutional, governmental, and policy support for PBE. Determining strategies to blend critical approaches and practice is vital for understanding how select critical place-based pedagogies can be realized. The relationship between theory and practice will determine how critical pedagogies of place are enacted. Frameworks and strategies exist for practitioners who want to undertake the project of including emancipatory perspectives of place into curricular frameworks (Ladson-Billings, 2000). Select scholars choose to exercise anti-oppressive education within the curricular confines of schooling (McInerney, Smyth & Down, 2011). Post-colonial literatures offer another strategy to confront historical realities through difficult, reparative approaches to the curriculum (Tarc, 2009). Harasymchuk's (2015) dissertation is an excellent resource for how teachers are challenging neo-colonialism within schools through place-based education and critical pedagogies of place in both New Zealand and Canada.

Certain understandings of PBE (Gruenewald, 2004) are contrasted with discipline-based knowledge and subject-specific methodologies (Ault, 2008). Those committed to single-subject approaches to the curriculum might be swayed by research that demonstrated that PBE better prepares students to be competitive in the global market place (Lieberman & Hoody, 1998). Other authors looked to holistic rationale to

include place- and community-based education within schools (Smith & Sobel, 2010, p. 32). Place-based education connects inquiry with the fabric of community, which has meaningful and impactful ties to the students that goes beyond content knowledge and informs learning of rooted, empathetic relationships: “if we want children to flourish, to become truly empowered, then let us allow them to love the earth before we ask them to save it” (Sobel, 1996 p. 39 cited in Gruenwald, 2003, p. 8). David Sobel (2004) envisioned place-based education to be more than the transmission of content through subject-specific methods. Similarly, this review highlights that place-based education best achieves student engagement and success through integrated, interdisciplinary, and inquiry-based approaches to teaching and learning.

Scholars differentiated PBE from mainstream education - where local places are often overlooked as sites of teaching and learning in favour of place-less, universal, and hegemonic content knowledge. Hattam, Brennan, Zipin, and Comber (2009) utilized critical pedagogies of place concepts to connect the experience of schools with student’s students’ lives. An Australian-based research project, Hattam et al. (2009) examined opportunities in areas facing socioeconomic, intergenerational challenges “to *engage* students in learning by building strong and meaningful connections between school curriculum and local community lifeworlds” (2009, p. 307). When young people are engaged as knowledge producers including “difficult” knowledge about socioeconomic conditions, local communities become sites for critical pedagogies to adopt local subcultures, music, and language (p. 311). The potential for practitioners and schools to adopt place-based methodologies positively impacts cultural and ecological sustainability as it connects schooling with local and global communities.

McKenzie (2009) outlined two categories within the literature of place-based education for the purpose of accommodating a broader range of places of pedagogy (p. 361). Showing that PBE has largely been approached either through the cognitive task of critique or through embodied aspects of experience, McKenzie called for the pedagogical “balance” of *both* critical *and* emotional/embodied engagements. McKenzie called for the inter-subjective space between cognitive critique and embodied experience to serve as an access point. Inter-subjective space accounts for a plurality of pedagogical practices and locations to exist as well as embraces the tradition(s) of PBE. Gruenewald (2003b) also explored how to connect these two traditions in his chapter titled, “Empathy, Exploration, and Social Action in Places” where he stated:

acknowledging that experience has a geographical context opens the way to admitting critical social and ecological concerns into one’s understanding of place, and the role of places in education. This is the goal of a critical pedagogy of place. (p. 9)

PBE literature has many actors who offer route maps to an engaging pedagogy of place in schools. Alternatively, select PBE literature pointed to the gap between emancipatory and progressive paradigms being epistemologically contradictory.

Even though scholarly research supported the implementation of PBE methods and pedagogy, scholars point to the hazardous consequences of combining PBE with disciplinary curriculum practices in schools (Gruenewald, 2004; Stevenson, 2007). Gruenewald (2004) critiqued much of the curricular research pertaining to PBE (i.e. Lieberman & Hoody, 1998). He argued that [place-based] education’s institutionalization within general education works against its own socially and ecologically transformative

goals (2004, p. 72). The structure of education, “with its emphasis on discipline-based standards and preparation for college or work, remained geared for purposes that are often at odds with the lofty goals of environmental education” (p. 74). In addition to critiquing school structure, Gruenewald warranted the effort to utilize integrated curriculum is not in keeping with dominant educational discourses, which serves arguably anti-environmental ends. He wrote: “claiming to be the ideal context for integrated or interdisciplinary learning in a standardized curriculum, environmental education often takes for granted, and fails to problematize, the value and purpose of the knowledges it is integrating” (2004, p. 74-82). Failure to examine the assumptions about Western scientific knowledge ignores many of the political, cultural, and economic forces that undo many pro-environmental efforts. When examining the intersection between PBE and curriculum implementation, both language and curriculum are emphasized as core characteristics that can either hinder or help realize pedagogies of place in schools.

The effect of language and post-structuralism

The shared goal of decolonization and reinhabitation described by Gruenewald (2003b) has been met with criticism for its use of metaphor. Tuck and Yang (2012) cautioned against the metaphorical use of the word decolonization unless explicitly dealing with the repatriation of Indigenous land and life, "settler colonialism and its decolonization implicates and unsettles everyone" (p. 7). How decolonization (as an English word intended for universal audiences) is outside of metaphorical usage, and thus subject to abstraction and interpretation, is not a realistic criticism for PBE literature. Tuck and Yang's political agenda for the repatriation of Indigenous land and life may be better served working alongside, rather than against, metaphorical language. PBE

literature has been informed by many of the spatial metaphors used in contemporary social and cultural discourse such as location, position, and locality, mapping, as well as the terms colonization/decolonization (Smith & Katz, 2004, p. 68). The uncritical appropriation of metaphor within PBE discourse does the field a disservice by universalizing meaning derived from specific sociocultural processes. Equally valid is Smith and Katz (2004) assertion that, “metaphor is inseparable from the generation of meaning, from language and thought” (p. 67). Thus metaphor has the power to both universalize and localize meaning.

Bowers (2001) and Brookes (2002) advanced the notion that colonial linguistic categories may hold a powerful, unacknowledged grasp on educational discourses. And while such writing occurred before Gruenewalds’ (2003b) treatise on critical pedagogies of place, fear that PBE literature is perpetuating colonizing tendencies is relevant. Barry (2002) framed this perspective within postcolonial criticism: “whenever a universal signification is claimed for a work, then, White, Eurocentric norms and practices are being promoted by a sleight of hand to this elevated status, and all others are correspondingly relegated to subsidiary, marginalized roles” (p. 193). Critical pedagogy of place then must address how the metaphors of reinhabitation and decolonization work. The projects of producing language, history, and colonialism are intertwined, “metaphor, for instance, is quite literally a spatial figure of speech: in a static sense, it stands in for or in place for something else - in this way, it makes what was invisible or only dimly perceptible emerge clearly before our eyes” (Carter, 1988 p. 30). The metaphors of reinhabitation and decolonization, seen as an engaging with a local and unique

particularity, holds potential to challenge universal notions of nature, culture, and fixed notions of being in the world.

In its reliance upon metaphor, PBE literature often invokes dualistic conceptualizations to place (e.g. reinhabitation/decolonization, global/local, nature/culture, urban/rural, individual/societal change). Soper (1995) outlined two broad approaches to nature: one of ecosystems and reality outside human categorization, the other doubting the existence of nature beyond cultural inscriptions. Thus educators tend to privilege certain interpretations of language. As Barry (2002) concluded, “some postcolonial writers have concluded that the colonisers’ language is permanently tainted, and that to write in it involves a crucial acquiescence in colonial structures” (p. 195). Bowers (2008) as well as Tuck and Yang (2012) have directed this argument towards PBE. Alternatively, viewing the physical world as existing outside linguistic categories, challenges basic assumptions about how language frames cultural knowledge.

Bowers (2008) critiqued the role of language for containing root metaphors. Simultaneously, Bowers created an in-or-out mentality regarding the cultural commons. Either one possesses appropriate cultural knowledge or one is liable to produce universal prescriptions and a colonizing agenda (2008, p. 334). Bowers is imposing his own Eurocentric root metaphor – the dualism of ideal (preserving cultural knowledge) or inferior (disintegration of traditional knowledges) realities. Nespor (2008) noted this act contains a moralistic judgment:

If we take as our basic moral and ontological division the supposedly growing distance between an ideal of people anchored in spatially bounded, long-inhabited communities, and the supposed reality of

alienated people adrift in the placelessness of global capitalism, we end up defining cultural identity and differentiating groups according to what we judge to be their distance from the ideal. (p.482)

The consequences of such an attitude are detrimental to student engagement in the long-term. While a polarizing narrative may initially attract people who are passionate about the ecological and social dimensions of place, such dualistic notions “could also keep away potential allies who like their stories less simple” (Nespor, 2008, p. 489). Bowers’ critique of a critical pedagogy of place is then misplaced, not entirely for his argument, but rather: “in breeding contention rather than seeking higher ground in a co-creation of a renewed form of socially-engaged pedagogy” (Morehouse, 2008, p. 694).

Prakash and Esteva (2008) purport that, under the banner of human rights, education is being used as a vehicle for continued oppression for people who are situated outside the ideal of Western education. Prakash and Esteva pointed to grassroots cultures and alternative ways of living, teaching, and learning that exist outside dominant institutions. An inspection of the literature presented within Tables 1 and 2 reveal a Eurocentric bias to the literature selected in this review. Such an insight warrants attention to renewed approaches to research methodologies rooted in place. The way experiences are conceptualized influences our perception of place. It is questioning the Western knowledge system as a backdrop to PBE literature that the final confluence emerges in the review.

Indigenous and Western knowledges

Indigenous research methodologies help establish the relationship between Indigenous knowledges with Western research (Battiste, 2013; Smith, 2012; Wilson,

2008). Simultaneously, a distinct stream of Western environmental education embraced PBE for its integration of Indigenous knowledges (Cole, 2007; van Eijck & Roth, 2010). PBE literature must guard against problems of appropriation. In light of strong parallels between place-based education and land-based education, PBE literature must avoid co-opting Indigenous groups and rather value Indigenous perspectives, histories, and research (Nespor, 2008, p. 482). Because the use of English has been a colonial apparatus, select Indigenous scholars point to their shared cultural traditions as one way to premise decolonization and reinhabitation in a way that is neither utopic nor metaphorical (Tuck & Yang, 2012). Barnhardt and Kawagley (2005) contended that Indigenous scientific and cultural knowledge as critical ingredients for developing an interdisciplinary pedagogy of place (see also, Cajete, 1994). Van Eijck and Roth (2010) explored chronotopic understandings of place in the context of SNITØEL/Tod Inlet to dialogue amidst Western scientific knowledge and Indigenous knowledges. One must only juxtapose how van Eijck and Roth (2010) who include social, post-colonial, and philosophical considerations to envision the natural world alongside Billick and Price (2010) who draw from solely Western scientific notions of place if one wishes to differentiate socially-oriented goals from Western scientific approaches to place-based education literature. PBE literature must reflect the contexts that honour Indigenous peoples rather than using Indigeneity as theoretical construct to be conflated with environmental conservation (Nespor, 2008, p. 482).

Select PBE authors have acknowledged how Indigenous perspectives have been relegated to the margins. Gruenewald (2008) surmised that Indigenous knowledges must be central to the topic: “increasingly, I am convinced that despite problems of

appropriation, Native, Indigenous, First Nations, and Aboriginal educational processes and epistemologies need to be at the center of place-based, culturally responsive teaching. Only through studying Native experiences will educators understand the enduring legacy of colonization and the possibility for diverse cultural ways of being” (Gruenewald & Smith, 2008, p. 151). Despite offering this statement, Gruenewald has published little to follow up with this assertion. Rather, other scholars have taken up this statement by Gruenewald.

The ways in which the environment is conceptualized in PBE literature has developed to account for place as it is rooted in the history and culture of Indigenous ontologies and epistemologies: “Land is, therefore we are” (Bang et al., 2014, p. 44-45). Tuck and McKenzie’s (2015) book *Place in Research* highlighted two gaps in the social science research literature: the relationship between neoliberalism or capitalism and land as well as the relationship between political systems and land-based practices of colonialism. Tuck and McKenzie map the emergence of critical place inquiry centered around Indigenous, decolonizing, and materialist methodologies to renew a conversation around place that is quite different from its largely unproblematized philosophical and geographical interpretations of decontextualized space. And while place is not decontextualized in PBE literature, certain contexts (colonial ones) are not always made visible. Tracing recent scholarship to outline the “spatial” and “new materialist” turns, Tuck and McKenzie outline how our interactions with the world are often interpreted (p. 13-14). This work offers a needed avenue for researchers to draw from renewed conceptions of place to better account for the significance of Indigenous, decolonizing methodologies. Tuck and McKenzie offered theory, methodologies, and methods rooted

in place to better reflect the “necessarily entwined” relationship between Indigenous and environmental concerns. Such a merger gives credence for decolonization to be at the heart of PBE (p. xvi).

Conclusion

Robust place-based education will account for the issues raised in discussing curricular implications, social and ecological connections, the effects of language and post-structuralism, and Indigenous and western knowledges. There is much work to be done if place-based education will reach its potential to transform the very nature of schools (Smith, 2002, p. 10). The metaphor of confluences is a call for scholars to extend their work beyond the current theoretical silos, leading to integrated approaches within programs to account for the breadth and depth represented within PBE literature. The emerging post-colonial and problem-oriented approaches await articulation within PBE programs for their confluence with environmental dimensions of place. In synthesizing PBE literature in this way, practitioners can consider the four major confluences when reading the river of place-based education.

Chapter 6: Conclusion

Higher ground: Perspectives on place-based education

The introductory chapter of this research introduced the purpose and context for the review. I shared how connecting the social and ecological dimensions of place motivated my research questions. Chapter two outlined the methodology of a critical literature review and organized the review into influences-critical analysis-confluences. It also outlined limitations and constraints on the research. Chapter three introduced the terrain of PBE literature, introducing relevant texts concerning outdoor education, non-formal education, experiential learning, place-based education, critical pedagogies, and land-based education. Chapter four outlined chronological and thematic organizing of place-based education literature while chapter five problematized and explored the confluences of PBE to articulate conceptual connections in the literature. The field of PBE distinguishes itself from previous educational traditions in a variety of ways. This was best examined in the chronological analysis. Notably, the literature argued that PBE is an improvement upon select environmental education methods for its problem-solving approach and the inclusion of social analysis alongside ecological analysis. The literature also pointed to the inclusion of history and culture within phenomenological dimensions of PBE.

Reflecting on the methodology, the research design did not discover how place-based education has been formed (and to what extent) from the streams of outdoor education, non-formal education, experiential learning, critical pedagogies, and land-based education. If I wanted to understand the formative literature of PBE, I may have been better served posing a different question. So while I was unable to answer my initial

research question, the methodology of a critical literature review did yield results in the form of the confluences of the field. Returning to the research question, I determined that socioecological education, the effect of language and post-structuralism, curricular implications, as well as Indigenous and western knowledges represent the main issues of the field. The development of problem-solving approaches to environmental education, psychological and phenomenological influences, as well as post-structural and post-colonial critiques composed the main concepts, knowledges and practices. The urban, rural, and land-based contexts of PBE literature, alongside curricular and critical dimensions, were revealed as the main tenets of the thematic analysis. This research process has led to more questions than answers.

Insights derived from this review recommended for future study are: To examine research methodologies used within PBE research literature such as action research, autoethnography, narrative inquiry, Indigenous methodologies, as well as empirical and quantitative findings; Discover the ways different PBE programs address Indigenous and post-colonial and/or problem solving approaches to environmental, place-based education; Compile teacher findings from a project-based, socioecological analysis with students (e.g. Bertling, 2013); And, teacher education research, especially considering how PBE is enacted in pre-service teacher education.

Reflections on the review

In conceptualizing the review in the metaphor of the watershed, I have brought forward the major debates and issues of the field. There exists a critique of my own research: within the metaphor everything is supposed to join in the same river. My metaphor has failed to deal with difference, and thus carries universalist overtones

privileging one way for place-oriented approaches to teaching and learning. That I manipulated all the sources under review to “drain” in the same direction can be problematized. The metaphor of the watershed is susceptible to the critique of hierarchically ordering perspectives, by sleight of hand, to give more credence to select voice(s). I have also purposefully left the relationship between environmental education and place-based education ambiguous. This is because I sense that both approaches reside upon shifting sands within both scholarly journals as well as education institutions. How best to enact PBE will be dependent upon local factors when fusing social and ecological issues. Practitioners must find organic solutions towards place within often-inorganic structures of teaching and learning.

I believe that select school administrators, teachers, and parents will want to embrace PBE as a pedagogical approach. As such, I can argue that PBE must contain a few essential elements. PBE must be connected to an experiential education tradition in order to embrace its learning occurring out of school and sometimes outdoors. A place-based education approach must utilize community resources in a manner than benefits the community. If practitioners embrace a critical pedagogy of place framework, then it will work to address social and environmental justice issues. A robust PBE program must be experiential, independent from traditional school structures, and contribute towards the wellbeing of communities and ecosystems.

I want to think that the review has provided readers a “democracy of viewpoints to be placed into dialogue” (Schostak, 2008, p. 219); however, despite my best efforts, I have not been able to adequately represent every perspective. Perhaps more importantly, the metaphor of the watershed allows for plurality and continued confluences and

currents. Whether PBE literature is represented as too complex is another question I hold about this research, and the field in general. Whereas Nespor (2008) articulated that simplistic, polarizing narratives may, “keep away potential allies who like their stories less simple” (p. 489) it can be argued that PBE may benefit from simplifying its message.

I also hope this review can spring diverse readings of place-based education. Looking back, this study would have benefited from the inclusion of more variables within in the critical analysis chart. Questions detailing policy and curricular documents may have enriched and broadened an understanding of the topic. While this research focused on the content of the literature, more details about authorship, professions, and methodological frameworks would strengthen the findings. A lack of empirical, quantitative data in this research reflects a wider trend in PBE literature generally. While identifying key issues, gaps in the literature, and suggesting future studies are important to expand research and connect practice, I still wonder about how best to navigate the currents and channels that constitute this critical literature review PBE.

Concluding thoughts

I have made a useful contribution to what/where PBE is and what/where it is not. It was suggested to me that this review serves the field like an early version of the periodic table. Originally, the periodic table contained many empty boxes that were yet undiscovered. Detractors failed to see the significance of the table: it provided the template that led to the discovery of the other elements. This review shows empty boxes within the field of PBE. While this research synthesizes the existing literature, its impact is limited by my knowledge of larger theoretical and philosophic research in education.

Previous knowledge about environmental education research may enable more strategic findings in the field.

There are several voices missing from the review. For the sake of brevity, I will discuss how the voice of the child and the voice of imagination can enrich my perspective. Intuitively, PBE is well suited to connecting children and the natural world. The emerging research and programs should be the first place to begin for practitioners interested in this work (see, Piersol, 2015). The voice of the child within PBE connects elements of imagination, physicality, and risk-taking that we tend to lose upon aging. Including children's perspectives within PBE is also vital "to counter the historic trend toward the loss of wildness where children play, it is clear that we need to find ways to let children roam beyond the pavement, to gain access to vegetation and earth that allows them to tunnel, climb, or even fall" (Nabhan, 1995, p. 9). At the outset of the research I stated that I held two images of society: one portrayed crumbling asphalt while the other depicted clean water. At the end of the thesis I return to this statement in the context of a playground to stress the significance of place-based education and its potential for young people.

The voice of the imagination would also enrich this review. Imaginary places have enormous power. This review has traced how PBE begins with experiencing the local environment to then show how land-based education begins with decolonizing the local environment. In a strong parallel, an imagined community represented in PBE requires a decolonization of the imagination. Returning to my introductory story, where I encountered wilderness as universal, I now imagine landscape in light of Indigenous history as well as ecological and cultural interdependence. The Imaginative Education

Research Group (IERG, 2015) is one resource that connects strongly to PBE through imaginative ecological education. Reflecting on the research process, the influences, channels, currents and confluences of place-based education literature compose my own imagined intricate waters.

While certain people will resonate with the aims of PBE, I speculate that the institutionalization of PBE may extract many of the ingredients that make it an engaging enterprise. I am not convinced that a robust place-based education necessarily equates to its inclusion within formal schooling without particular preconditions (although I am not arguing against it). This is why it seems that PBE perhaps has “pockets” of popularity within select education systems, whereby shareholders create the capacity for PBE to flourish. Further, in order to realize the ideals of place-based education, a proliferation of practice crossing various local contexts and expressions are needed. Going forward, I can see how the concepts contained in PBE can connect into the fields of social work, social enterprise, and community development. In this sense, PBE can be understood as a river and also like a weed emerging from the asphalt, “scattered and thriving where the soil conditions are right” (Mirth, 2003, p. 44).

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Table 1: Chronological ordering of place-based education literature

Topic/Author	Publication Date	Country
Environmental		
Smith	2002	USA
Payne	2002	AUS
Gruenewald	2003b	USA
Smith	2007	USA
Stevenson	2007	USA
Cole	2007	USA
Tooth & Renshaw	2009	AUS
Hill	2013	AUS
Woodhouse	2015	USA
Experiential		
Stedman	2002	USA
Adkins & Simmons	2003	USA
Ardoin	2006	USA
Cannatella	2007	AUS
Brown	2008	NZ
Morehouse	2008	USA
Mullins	2009	CAN
Hutson	2010	NZ
Wattchow & Brown	2011	AUS/NZ
Malone	2016	AUS
Philosophical		
Bowers	2001	USA
Brookes	2002	AUS
Flyn, Kemp, & Perez	2009	USA
Cravey & Petit	2012	USA
Johnson	2012	USA
Tuck & Yang	2012	USA
Seawright	2014	USA
Tuck & McKenzie	2014	USA/CAN
Nakagawa & Payne	2015	AUS

Table 2: Thematic ordering of place-based education literature

Theme/Author	Date	Country
Accessing Themes		
McInerney, Smyth, & Down	2011	AUS
Beames, Higgins, & Nicol	2012	UK
Harrison	2010	UK
Theobald	1997	USA
Curtiss & Theobald	2000	USA
Rural, Urban, and Land-based Contexts		
Van Eijck & Roth	2010	CAN
Derby, Piersol, & Blenkinsop	2015	CAN
Calderon	2014	USA
Tuck, McKenzie, & McCoy	2014	USA/CAN
Scully	2013	CAN
Styres, Haig-Brown, & Blimkie	2013	CAN
Curriculum and PBE		
Lieberman & Hoody	1998	USA
Powers	2004	USA
Jennings, Swidler, & Koliba	2015	USA
Zandvliet	2013	CAN
Critical Pedagogies of Place		
Gruenewald	2003b	USA
Gruenewald	2004	USA
Gruenewald	2008	USA
Debates about Critical Pedagogies of Place		
Bowers	2001	USA
Bowers	2008	USA
Stevenson	2008	USA
Discussion		
Nespor	2008	USA
Hattam, Brennan, Zipin, & Comber	2009	AUS
McKenzie	2009	CAN
Chambers & Radbourne	2014	CAN

Appendix A: Critical analysis chart example

Citation information	Derby, M., Piersol, L., Blenkinsop, S. (2015). Refusing to settle for pigeons and parks: Urban environmental education in the age of neoliberalism. <i>Environmental Education Research</i> , 21(3) 378-389	McInerney, P., Smyth, J., & Down, B. (2011). Coming to a <i>place</i> near you?' the Politics and possibilities of a critical pedagogy of place-based education. <i>Asia-Pacific Journal of Teacher Education</i> , 39(1) p. 3-16	Calderon, D. (2014). Speaking back to manifest destinies: A land education-based approach to critical curriculum inquiry. <i>Environmental Education Research</i> , 20(1) 24-36	Cannatella, H. (2007). Place and being. <i>Educational Philosophy and Theory</i> 39(6), p. 622-632	Van Eijck, M & Roth, W. (2010). Towards a chronotopic theory of place in place-based education. <i>Cultural Studies of Science Education</i> 5(4) p. 869-898
Purpose (problem or issue)	Challenges critical pedagogies of place (Leopold's What is happening here, what has happened here, and what should happen here) implementation in challenging the role of neoliberalism in environmental education.	If we are to promote a critical approach to place-based learning in schools it is appropriate to consider how teachers may be better prepared to develop curriculum that fosters a spirit of critical inquiry into communities and landscapes (p. 12)	How Land education intersects PBE through a settler colonialism frameworks. Draws from terms "decolonization" and reinhabitation" to connect LBE + PBE frameworks.	lived experiences of place, rather than abstractions of place, lends themselves to transformative education. Can attribute this to "being" in place, a construct which is explored with various thinkers about the phenomenon of experience.	the notion of place is emerging as problematic for its commitment to fixed notions of time and place that are consistent with scientific ways of knowing to the exclusion of chronotopic understandings of place.
Key Terms	Environmental education, critical pedagogies of place, neoliberalism, wilderness, culture/nature.	Place-based education, Australia, teacher education, foundations, identity, critical pedagogies of place	LBE, PBE, decolonization, reinhabitation, Indigenous knowledges, Indigenous cosmologies, settler colonialism, ideology.	place, being, Heidegger, philosophy, phenomenology	chronotopic (time–space). Scientific indigenous dialogue. Place theorizations, place-based (science) education. Environmental education, critical pedagogy of place, language, relativity, dialectic
Theoretical framework	critical pedagogies, historical realism, post-structural	Action research, teacher education, critical pedagogies	Indigenous worldviews, settler colonialism	phenomenology, philosophical inquiry, Marion (2002), Merleau-Ponty (2002), Greene (1995), Levinas (2000)	dialectic, science, post-structural, philosophical inquiry
Conclusions	that the 'wilderness' we encounter in cities is qualitatively different from what is encountered in predominantly undomesticated areas. Despite the procession of birds that might flock overhead, the coyotes that roam urban alleyways, or the families of raccoons that rummage through garbage bins, cities are not wilderness on its own terms.	Two main themes of place: identity formation (sense of home and belonging, identity) as well as political ramifications of the globalism and environmental issues (see, 'new localism'). Such, there is a political and pedagogical strand of PBE.	LBE can work to decolonize PBE practices through a decolonization of the local (p. 28) and through addressing issues of territoriality. Such a claim extends claims made by some PBE scholars (Sobel, 2004; Smith & Sobel, 2010) that PBE must start with the locale. Highlighting such a statement reveals the	I construe that embodied local places will rest upon bringing out some of the depth of our lives; what we inhabit place (p. 624). Current education does not frame the time needed for students to perceive things individually.	place based education is in crisis, place is a problematic term because of the various claims people attach to the concept. In place-conscious education place is framed as a multidisciplinary construct for sociocultural analysis. Scientific knowledge currently holds dominant voice in PBE, from chronotopic perspective, science is only one voice (can be held dialectically) that can be held otherwise (otherwise forms a

	<p>Cities are, by and large, colonized places. Reinhabitation and decolonization depend on each other, and a critical pedagogy of place is not possible without pursuing both processes in tandem.</p>		<p>purposes of PBE/LBE.</p>		<p>monologue which silences). At best, in place-based education science can be one of the voices in an unfolding dialogue that establishes place as chronotope.</p>
Implications	<p>that most of the ecological destructive activities happening on the planet right now are rooted in the unconditional acceptance of the neoliberal paradigm. PBE cannot settle for the "local" given that the local is used by neoliberalism as a form of isolationism.</p>	<p>Problematic aspects of PBE: • prevailing assumptions about the notions of place, identity and difference; • the pedagogical limitations of place-based curriculum; • the limits to local activism when it comes to transforming communities.</p>	<p>Disrupt settler identities, account for Indigenous worldviews and cosmologies, and for both Western and Indigenous frameworks to decolonize understandings of places.</p>	<p>uses examples of children painting their homes to account for their being (identity, narration, meaning) to account for the painting of a home (place) and not just the representation of a static place. Must account for people's own experiences with place in order to see them as valuable educationally.</p>	<p>depending on which version of PBE (Scientific/social) is emphasized, place-names, voice, etc. are presumed as orderly (Shows mapping and naming between colonial/indigenous to illustrate).</p>
Weaknesses	<p>Does not expand on Neoliberalism as a construct. Nature/culture divide is eminent (I.e. sky scrapers are bad, more-than-human is good), and although it is identified (p. 379), it does not offer a pedagogy consistent with cPoP (dec. & rein) to address the issue, solely a critique.</p>	<p>While it criticizes the literature, it does so in generalizations, denoting that PBE detractions are common knowledge and little can be done. Points to the need for criticality. An overview of literature is presented.</p>	<p>Definition of Decolonization (as uncovering how settler colonial projects are maintained and produced) is not inclusive of approaches outside of settler-colonial frameworks. Such a definition is self-serving, and may work to silence certain voices.</p>	<p>Does not account for sociocultural forces, cites the nexus of learning within experiences. Not strictly addressing PBE debates.</p>	<p>want to avoid making Indigenous and scientific voices to be made to appear contradictory, yet theoretical framing difficult to grasp (chronotope): who[se] place is described? Yet what is the alternative - formal education (supposedly) offers economic, and political independence but used as colonizing tool. highly conceptual to work around ideas put simpler elsewhere.</p>
Strengths	<p>Shows how neoliberalism reforms are now "common sense" logic that undermines many educators' consciousness. Our concern is that in responding cursorily to the false separation of nature and culture, environmental educators risk furthering a neoliberal agenda that appropriates language in order to justify the colonized logic of urban spaces and continued exploitation of what remains of the 'wilderness.'</p>	<p>Acknowledges critiques ((Cormack et al., 2006; Furman & Gruenewald, 2004; Gruenewald, 2003a; Hayes-Conroy, 2008; Nespor, 2008): Fails to connect local and global phenomenon, which is vital to understanding cause and effects of economic, social, and ecological problems. Also states that PBE is under theorized,</p>	<p>Indigenous cosmologies align with PBE goals of sustainability, community building, and issues of territoriality (p. 27).</p>	<p>critiques foundations of place-thinking, tracing Aristotle's scientific objective approach to places as simply topographical as separating being from the world (p. 628)</p>	<p>science promotes objective and isolated forms of knowledge (p. 881). PBE educators align their conceptions of time and place along the same lines of the development of the physical sciences (p. 882). Einstein's theory of relativity acknowledges the human construction of space and time. Such a paradigm begets place as a narrated entity rather than something external to human life. Can not afford to have scientific chronotope as the ONLY epistemological commitment/voice.</p>

Contribution to literature base	Has a strong sense on the end-goals of Cpop - that no one wants to end in purely critical theorizations of the world. The debate about wild-ness. See Cronon, and Smith, M. 2007. "Wild-life: Anarchy, Ecology, and Ethics." Environmental Politics 16 (3):470-487	Acknowledges main scholarship in order to challenge ____ assumption: 1. revitalizing the commons (bowers, theobald). 2. connection of schools and communities. 3. school reform in neoliberal times	Where definitions are drawn from (i.e. reinhabitation is credited to Peña (1998)) varies from other versions of Reinhabitation and decolonization which are forwarded in PBE literature. Difficult to trace, historically, métis urbanization.	"I have argued that by creating space and place we create ourselves. We derive much of our learning from our experiences in place, and what binds us to places and the life of a place determines a degree of our being in the world. This has been a paper that has explored some of the ways in which we can grasp more of our aesthetic and phenomenological sense of our being in place prevalent to certain challenges and advancements in our own educational thinking" (p. 632)	Places cease to be geographical, but also inter-related/human. The reduction of the inner chronotope of place to the scientific chronotope defined by external relations only is exactly what makes "place" in place-based science education so problematic. depicts a tension in PBE between scientific and social spheres. Environmental education, "On the one hand, a natural scientific approach "dehumanizes" the place and reduces it to its natural scientific characterizations. On the other hand, the very same approaches aim at bringing students closer to the place away from global, abstract issues" (p. 878).
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Appendix B: Brookfield's adapted questions

Methodological Questions:

The way in which evidence is obtained that underlies theoretical propositions, empirical descriptions, and philosophical injunctions in the literature.

To what extent are the central insights (research findings, theoretical propositions, or philosophical injunctions) grounded in documented empirical evidence?

Looking for uncontested claims that are prevalent (ex. adult education is empowering) and seeing what the author uses to support his/her claims. Speculative personal preference is validated by informed rationale, wording is often fashioned from experience. The task here is to determine the speculative from the rationale.

To what extent does the writing examined seem culturally skewed?

Look for groups, which are then talked about homogeneously (universally?) and understood in simplified processes. Unearth assumptions about bias (class, gender). An example of this is examining the reference lists (gender? Ethnicities?) to offer insights. Is the work produced by people of a specific milieu with access to certain channels of communication?

To what extent are descriptive and prescriptive fused in an irresponsible and inaccurate way?

Look for essential features (usually reflects personal philosophy of writer) that are expressed as codified. Is often compelling and provocative (ex. Freire). The author wants/appears to be self-evident, and portraying an objective depiction of reality.

Communicative Questions:

Stylistic matters such as voice, privatized academic language, and form need to be examined for the presence and role of power. Importance is presented: whose voice is dominant; what knowledge counts; what knowledge is disqualified?

Whose voices are heard in a piece of academic writing?

Also, who is voiceless who requires a voice? Look for political projects that are being achieved through the selection and empowerment of voice (given credence).

To what extent does the literature examined use a form of specialized language that is unjustifiably distanced from the colloquial language of adult learner/educators?

Are terms classified as and supported by examples? To develop a language which takes critical pedagogy (for example) outside a group of converts and justifies its relevance to educators who see their practice as separate from politics. Use of stories, parables, dialogue in text are some strategies by which to communicate critical thought

To what end does the piece of writing examined show a connectedness to practice?

Experiential Questions:

Put what you are reading through your own experiences. Draw from journaling.

Experiences/text doesn't equate to critical analysis, but demystifies texts for students and/or beginners. A danger of this "filter" is that it can contain close-mindedness, and pose as a vehicle for self-affirmation. Touches upon life-history approaches to education, can see the metaphors/assumptions within oneself and others' writings to pause for reflection upon assumptions.

What connections and discrepancies do you note between process and practice contained in a piece of academic writing and your own experiences as a learner and educator?

What metaphors are present? For writers? For yourself?

What experiential omissions are there in a piece of literature, that, to the student, seem important?

Is the text devoid of emotion?

To what extent does a piece of literature acknowledge and address ethical issues?

An example is transformation is largely written about positively, and as a break from distorted worldviews. Brookfield noted how this departs from the lonely and painful process that critical reflection sparks. The loss of old support networks, committing “cultural genocide” warrants an ethical debate for educators. How to promote critical thinking at the (perhaps) risks of psychological harm/self-esteem.

Political Questions:

How does the writing stifle or animate movements for social justice? Can use concepts of kindness, collectivism, democracy to induce people into this mode of thinking. Inter-subjective: open to others while forwarding one’s own. I only included 4 questions from this section as it was quite heavy. Can tell Brookfield is invested in this sphere of analysis.

Whose interests are served by the publication of a text?

Do students or instructors interests assume primacy? Read forwards, acknowledgements, and prefaces closely.

To what extent are models and ideal types of educational practices reified, presented as beyond human agency?

What is context-specific/ what is universal? Is there a sort of formulaic certainty present? Such are the “epistemic habits” that writers can fall into.

What naturally assumed forms of curricular and programmatic provisions are presented that stifle collectivism?

An investment in individualism or do they acknowledge social networks and cultural processes as vital to teaching and learning?

To what extent are the political impediments to educational innovations addressed?

Ideals vs. Social action a dangerous road fraught with perils. Does the text guide the process, or is it merely interested in high-values and ideals. Does it suggest strategies or pressure points for change?